



NYSERDA

Combined Heat and Power Catalog

CHP Program

PON 2568 Attachment C

Revision History

- Version 1.0 – December 2012
- Version 2.0 – June 2013
- Version 2.1 – August 2013
- Version 3.0 – September 2014
- Version 3.1 – September 2014
- Version 3.9 – May 2016
- Version 4.0 – July 2016

PLEASE NOTE:

In addition to the approved CHP Vendors and qualified CHP Modules described in this Catalog, the following additional vendors have been approved. Catalog pages for CHP Modules supplied by these vendors are under development and will appear in future versions of this Catalog.

DCO Energy
AB Energy USA

Any approved CHP Vendor may submit an application to PON 2568 for the installation of approved CHP Modules whether or not the approved vendor or module appear in this Catalog.

CHP Program CHP Catalog (PON 2568 Attachment C)

The Combined Heat and Power (CHP) Program, Catalog Approach, provides incentives for the installation of pre-qualified and conditionally qualified CHP Modules by approved CHP system Vendors up to 3 MW in size. To be eligible for incentive payments, the installation site must pay the System Benefits Charge (SBC) surcharge on their electric bill. Under the CHP Program Catalog Approach, NYSERDA will accept applications only from approved CHP system Vendors and all incentive payments will be made to the approved CHP system Vendors. For more information about the CHP Program, see PON 2568 at <http://www.nyserda.ny.gov/PON2568>.

This Catalog contains descriptions of eligible CHP Catalog Modules and approved Vendors, and the NYSERDA incentive amount assigned to each Catalog Module. All of the CHP Catalog Modules in the Catalog can run every day to save energy and save money. Many of these Modules can also run during grid outages to provide electric power to the site's priority loads.

The pre-qualified and conditionally qualified Catalog Modules have been evaluated for reasonable component sizing and are comprised of reputable components. In addition, pre-qualified Catalog Modules have demonstrated real-world performance through long-term monitoring. The approved Vendors are required to take full, single point-of-contact responsibility for proper installation and performance, and must provide a warranty/service agreement for a minimum of 5 years for the pre-qualified and conditionally qualified Catalog Modules that they offer.

A complete CHP System may be comprised of more than one Catalog Module. In this case, the total incentive will be less than the sum of the incentives for the individual Catalog Modules. The CHP Program Incentive Calculator can be used to estimate the incentive that will be available for a particular CHP System design. Note: The Incentive Calculator is only to be used to obtain an estimate of the CHP Incentive applicable to a proposed project. NYSERDA takes no responsibility for errors or misinterpretations resulting from its use. NYSERDA will review each application, and in its sole discretion, assign the appropriate incentive.

In order to assist potential CHP users to learn about CHP, determine if CHP is right for them, and assist in navigating the process of installing a CHP system, NYSERDA has contracted with ERS Inc. (ERS) to provide CHP out-reach and technical assistance at no cost to the customer. Please note: sophisticated customers that have, or are expected to be able to acquire, sufficient technical resources will receive limited assistance from ERS. If you are interested in taking advantage of the no-cost services available, contact:

ERS Inc.
Gita Subramony
212-789-8182 x 292
gsubramony@ers-inc.com

If you are interested in installing a CHP system on your site using the Catalog Approach, NYSERDA recommends the following course of action:

LEARN: What is CHP? Am I a good candidate?

1. Read about the basics of CHP.
 - The Northeast Clean Heat and Power Initiative (NECHPI) has a great summary of CHP_ (<http://www.nechpi.org/chp-basics/>).
 - The US Environmental Protection Agency (EPA) also has information on the basics of CHP technology_ (<http://www.epa.gov/chp/what-chp>).
 - The US Department of Energy CHP Technical Assistance Partnership (DOE TAP) also has some collected papers on CHP implementation (<http://www.northeastchptap.org/good-reads>).
2. Determine if your building could be a good candidate for CHP. If your building has a year round need for electricity *and* thermal energy, CHP could be a good energy saving option. The DOE TAP has a quick questionnaire for initial site screening (<http://www.northeastchptap.org/screening-site-qualification>).
3. If you need more information on CHP technology or its benefits, contact ERS.

PLAN: What are the site-specific considerations for CHP at my building?

1. ERS can help customers through the process of planning a CHP project.
2. Complete a preliminary analysis. This includes determining facility characteristics and outlining energy efficiency and resiliency goals.
 - ERS offers a free preliminary analysis to help estimate CHP feasibility and potential sizing options including financial information.
 - The DOE TAP (<http://www.northeastchptap.org/contact>) can also provide, at no cost, additional information on CHP feasibility.
3. Schedule a visit to your building with ERS to identify potential installation obstacles.
4. If you are seeking a CHP system outside of NYSERDA's sizing guidelines, or if you feel that the Custom Approach better meets your need, a more detailed study will be required. NYSERDA's FlexTech Program (<http://www.nyserda.ny.gov/flextech>) might be able to help.

SHOP: How do I get the information that I need from the vendors?

1. ERS can help customers through the process of issuing a request for vendor bids.
2. Based on the results of either the preliminary analysis or a detailed study, investigate options in the CHP Catalog ([http://www.nyserda.ny.gov/PON 2568 Attachment C](http://www.nyserda.ny.gov/PON_2568_Attachment_C)).
3. Gauge vendor interest.
4. Invite vendors to tour site so that they can formulate and submit detailed proposals with price estimates and procurement style (e.g., buy, lease, power purchase agreement, etc.).

BUY: How do I know if I am buying the right system for the right price?

1. Receive proposals from multiple vendors for installation and maintenance of the CHP system. ERS can assist with analyzing vendor proposals.
2. Ask follow-up questions regarding proposals and receive proposal revisions if necessary.
3. Select the proposal that best meets your building's needs (the proposal must come from a NYSERDA approved vendor and the system must be in the program catalog to qualify for incentives under the Catalog Approach).
4. The selected vendor prepares and submits the application to NYSERDA.

Vendors - Vendors of CHP systems with demonstrated performance may apply for qualification/approval through RFI 2568 CHP Program – CHP Module/Vendor Qualification. NYSERDA may fund, on a case- by-case basis, the demonstration of new CHP equipment that would be likely to, but may not yet, meet the eligibility requirements for pre-qualification or conditional qualification under RFI 2568. Contact Edward Kear at 518 862-1090 x3269 or edward.kear@nyserda.ny.gov for more information.

CHP System Sizing Guidelines

NYSERDA has developed a set of **conservative** CHP system sizing guidelines for common building types based on combinations of building characteristics and CHP system sizes that have been shown to perform well. If you don't know how big a CHP system you need, the chart below provides a reasonable reference size to start with.

Building Type	Microturbine Size	Reciprocating Engine (RICE) Size
Multi-Family Housing (Master Metered)	0.25kW/Apartment	0.35kW/Apartment
Assisted Living / Nursing Home	0.15kW/Bed	0.25kW/Bed
Hospital	1.4kW/Bed	2.0kW/Bed
Hotel	0.14kW/Room	0.20kW/Room

Applications for CHP Systems that are smaller than these sizing guidelines will receive a streamlined review by NYSERDA. Applications for CHP Systems larger than the sizing guidelines, or for CHP Systems to be installed in building types not covered by the sizing guidelines, must include a properly performed technical feasibility study showing that the selected CHP system is a good match for the buildings loads and its installation will meet program requirements.

Incentive Regions

NYSERDA assigns two incentive amounts to each CHP system in the catalog, one for Upstate locations and one for Downstate locations as follows:

- Upstate – Customer sites located in the area of the State north and west of Westchester County.
- Downstate – Customer sites located New York City and Westchester County.

In order to be approved for an incentive, the installation design must show that an eligible CHP System will be connected to the building electric system behind an electric meter that is subject to the SBC surcharge. In addition, the installation design for directly-fueled CHP System larger than 50kW must show that the CHP System will be connected to the site's electric system in such a way that the CHP System can be used to support priority electric loads during grid outages.

Coordination of Public Funding

If a project to install a CHP system is awarded other public grant funding or utility incentives, NYSERDA may reduce the incentive amount with the intent that total public/utility funding, including NYSERDA's incentive, will not exceed 100% of the total project cost. The Applicants must inform NYSERDA's project manager of all pending and awarded public grant funding and/or utility incentives related to the project.

Table of Contents Key

- R – Reciprocating Internal Combustion Engine (RICE)
- M – Microturbine
- A -- Asynchronous (induction)
- S – Synchronous
- I – Inverter
- H – Hot Water
- St – Steam
- C – Chiller (tons)
- O – Organic Rankine Cycle (ORC) combined cycle

Eligible CHP Vendors and Modules

Vendor	Model	Size (kW)	Features	Page
2G - Energy	patruus100NG	100	R,S,H	1
	patruus100NG-S1	100	R,S,St	3
	patruus100NG-S2	100	R,S,St	5
	patruus160NG	160	R,S,H	7
	patruus160NG-S1	160	R,S,St	9
	patruus160NG-S2	160	R,S,St	11
	patruus200NG	200	R,S,H	13
	patruus200NG-S1	200	R,S,St	15
	patruus200NG-S2	200	R,S,St	17
	agenitor206NG	220	R,S,H	19
	agenitor206NG-S1	220	R,S,St	21
	agenitor206NG-S2	220	R,S,St	23
	agenitor306NG	250	R,S,H	25
	agenitor306NG-S1	250	R,S,St	27
	agenitor306NG-S2	250	R,S,St	29
	patruus265NG	265	R,S,H	31
	patruus265NG-S1	265	R,S,St	33
	patruus265NG-S2	265	R,S,St	35
	patruus400NG	400	R,S,H	37
	patruus400NG-S1	400	R,S,St	39
	patruus400NG-S2	400	R,S,St	41
	agenitor 312NG	450	R,S,H	43
	agenitor 312NG-S1	450	R,S,St	45
	agenitor 312NG-S2	450	R,S,St	47
	agenitor306NGTP	500	R,S,H	49
	agenitor306NGTP-S1	500	R,S,St	51
	agenitor306NGTP-S2	500	R,S,St	53
	patruus265NGTP	530	R,S,H	55
	patruus265NGTP-S1	530	R,S,St	57
	patruus265NGTP-S2	530	R,S,St	59
	avus600NG	600	R,S,H	61
	avus600NG-S1	600	R,S,St	63
avus600NG-S2	600	R,S,St	65	
avus800NG	760	R,S,H	67	
avus800NG-S1	760	R,S,St	69	
avus800NG-S2	760	R,S,St	71	
avus1200NG	1200	R,S,H	73	
avus1200NG-S1	1200	R,S,St	75	
avus1200NG-S2	1200	R,S,St	77	
avus1500NG	1560	R,S,H	79	
avus2000NG	2000	R,S,H	81	
Aegis Energy Services	Yanmar CP35D1(Z)-TNUG	35	R,I,H	83
	Agen PowerSync 75	75	R,S,H	85
	Agen PowerVerter 75	75	R,I,H	87
	Agen PowerVerter 100	100	R,I,H	89
	Agen PowerSync 150	150	R,S,H	91
	Agen PowerVerter 150	150	R,I,H	93

Aegis Energy Services	Agen PowerVerter 200	200	R,I,H	95
	Agen PowerSync 225	225	R,S,H	97
	Agen PowerVerter 225	225	R,I,H	99
	Agen PowerSync 300	300	R,S,H	101
	Agen PowerVerter 300	300	R,I,H	103
Co-Energy America	Amerigen 8150	150	R,S,H	105
	Amerigen250(Sync)	250	R,S,H	107
Cogen Power	1137-1	1137	R,S,H	109
	1137-2 CCHP	1137	R,S,H	111
Elite Energy	EES150	150	R,S,H	113
	EES250	250	R,S,H	115
Ener-G Rudox Inc	ER80UL HW	80	R,S,H	117
	ER80ULI HW	80	R,I,H	119
	ER160UL HW	160	R,S,H	121
	ER160ULI HW	160	R,I,H	123
	ER265UL HW	265	R,S,H	125
	ER265ULI HW	265	R,I,H	127
	ER385UL HW	385	R,S,H	129
	ER385ULI HW	385	R,I,H	131
	ER555UL HW	555	R,S,H	133
	ER555ULI HW	555	R,I,H	135
	ER760F HW	760	R,S,H	137
	ER760FI HW	760	R,I,H	139
	ER840F HW	840	R,S,H	141
	ER840FI HW	840	R,I,H	143
	ER1000MF HW	1000	R,S,H	145
	ER1000MFI HW	1000	R,I,H	147
	ER1200MF HW	1200	R,S,H	149
	ER1200MFI HW	1200	R,I,H	151
	ER1500MF HW	1500	R,S,H	153
	ER1500MFI HW	1500	R,I,H	155
ER1700F HW	1700	R,S,H	157	
ER1700FI HW	1700	R,I,H	159	
ER1900F HW	1932	R,S,H	161	
ER1900FI HW	1932	R,I,H	163	
ER2120F HW	2120	R,S,H	165	
ER2120FI HW	2120	R,I,H	167	
FlexEnergy, Inc	GT250S	250	M,S,H	169
	GT333S	333	M,S,H	171
GEM Energy	IPS-65-CHP	65	M,I,H	173
	IPS-130-CCHP	130	M,I,H,C(40)	175
	IPS-130-CHP	130	M,I,H	177
	IPS-195-CHP	195	M,I,H	179
	IPS-260-CCHP	260	M,I,H,C(91)	181
	IPS-260-CHP	260	M,I,H	183
	MCPS-260-CCHP	260	M,I,H,C(91)	185
	MCPS-260-CHP	260	M,I,H	187
	IPS-390-CCHP	390	M,I,H,C(146)	189
	IPS-390-CHP	390	M,I,H	191
	MCPS-390-CCHP	390	M,I,H,C(146)	193

GEM Energy	MCPS-390-CHP	390	M,I,H	195
	IPS-600-CHP	600	M,I,H	197
	IPS-600-CHPg-M	600	M,I,H	199
	IPS-1000-CCHP	1000	M,I,H,C(287)	201
	IPS-1000-CHP	1000	M,I,H	203
IntelliGen Power Systems	IntelliGen 160 Inverter	160	R,I,H	205
	IntelliGen 160 Synchronous	160	R,S,H	207
	IntelliGen 265 Inverter CCHP	265	R,I,H,C(80)	209
	IntelliGen 265 Inverter	265	R,I,H	211
	IntelliGen 265 Synchronous	265	R,S,H	213
	IntelliGen 320 Inverter	320	R,I,H	215
	IntelliGen 530 Inverter	530	R,I,H	217
Kraft Power Corporation	KMGR-55-4SH	55	R,S,H	219
	KMGR-80-4SH	80	R,S,H	221
	KMGR-150-4SH	150	R,S,H	223
	KMGR-250-4SH	250	R,S,H	225
	KMGR-360-4SH	360	R,S,H	227
	KMGR-360-4SH-CCHP	360	R,S,H	229
	KMGR-500-4SH-CCHP	500	R,S,H	231
	KMGR-541-4SH	541	R,S,H	233
	KMGR-541-4SH-CCHP	541	R,S,H	235
LC Associates	2E2842E312/E4000	536	R,I,O(65)	237
	4E2842E312/E4000	1072	R,I,O(130)	239
Lightfoot Energy Solutions	LFEM160EI6M14	160	R,S,H	241
	LFEM160EI6MS4 Chiller	160	R,S,H,C(50)	243
	LFEM260EV12MS4	260	R,S,H	245
	LFEM260EV12MS4 Chiller	260	R,S,H,C(75)	247
	LFEM160EI6M14/LFEM260EV12MS4	420	R,S,H	249
	LFEM160EI6M14/ LFEM260EV12MS4 Chiller	420	R,S,H,C(135)	251
	LFEM260EV12MS4 X2	520	R,S,H	253
	LFEM260EV12MS4 X2 Chiller	520	R,S,H,C(150)	255
	LFEM260EV12MS4 X3	780	R,S,H	257
	LFEM260EV12MS4 X3 Chiller	780	R,S,H,C(240)	259
	LFEM260EV12MS4 X4	1040	R,S,H	261
	LFEM260EV12MS4 X4 Chiller	1040	R,S,H,C(310)	263
	RSP Systems	65-DM-iCHP	65	M,I,H
65-DM-iCHP-CCHP		65	M,I,H,C(20)	267
130-DM-iCHP		130	M,I,H	269
130-DM-iCHP-CCHP		130	M,I,H,C(30)	271
195-DM-iCHP		195	M,I,H	273
195-DM-iCHP-CCHP		195	M,I,H,C(50)	275
C200-DM-Cain HW		200	M,I,H	277
C200-DM-Cain Steam		200	M,I,St	279
C200-DM-CCHP		200	M,I,H,C(50)	281
260-DM-iCHP		260	M,I,H	283
260-DM-iCHP-CCHP		260	M,I,H,C(60)	285
325-DM-iCHP		325	M,I,H	287
325-DM-iCHP-CCHP		325	M,I,H,C(80)	289
390-DM-iCHP		390	M,I,H	291

RSP Systems	390-DM-iCHP-CCHP	390	M,I,H,C(96)	293
	C400-DM-Cain HW	400	M,I,H	295
	C400-DM-Cain Steam	400	M,I,St	297
	C400-DM-Cain-CCHP	400	M,I,H,C(96)	299
	455-DM-iCHP	455	M,I,H	301
	455-DM-iCHP-CCHP	455	M,I,H,C(112)	303
	520DM-iCHP	520	M,I,H	305
	520-DM-iCHP-CCHP	520	M,I,H,C(128)	307
	585-DM-iCHP	585	M,I,H	309
	585-DM-iCHP-CCHP	585	M,I,H,C(144)	311
	C200-3-DM-HW	600	M,I,H	313
	C200-3-DM-Steam	600	M,I,St	315
	C200-3-DM-CCHP	600	M,I,H,C(160)	317
	C600-DM-Cain HW	600	M,I,H	319
	C600-DM-Cain Steam	600	M,I,St	321
	C600-DM-Cain-CCHP	600	M,I,H,C(160)	323
	C600S-DM-HW	600	M,I,H	325
	650-DM-iCHP	650	M,I,H	327
	650-DM-iCHP-CCHP	650	M,I,H,C(160)	329
	715-DM-iCHP	715	M,I,H	331
	715-DM-iCHP-CCHP	715	M,I,H,C(176)	333
	780-DM-iCHP	780	M,I,H	335
	780-DM-iCHP-CCHP	780	M,I,H,C(205)	337
	C200-4-DM-HW	800	M,I,H	339
	C200-4-DM-Steam	800	M,I,St	341
	C200-4-DM-CCHP	800	M,I,H,C(200)	343
	C800-DM-Cain HW	800	M,I,H	345
	C800-DM-Cain Steam	800	M,I,St	347
	C800-DM-Cain-CCHP	800	M,I,H,C(200)	349
	C800S-DM-HW	800	M,I,H	351
	C200-5-DM-HW	1000	M,I,H	353
	C200-5-DM-Steam	1000	M,I,St	355
C200-5-DM-CCHP	1000	M,I,H,C(250)	357	
C1000-DM-Cain HW	1000	M,I,H	359	
C1000-DM-Cain Steam	1000	M,I,St	361	
C1000-DM-CCHP	1000	M,I,H,C(250)	363	
C1000S-DM-HW	1000	M,I,H	365	
C200-6-DM-HW	1200	M,I,H	367	
C200-6-DM-CCHP	1200	M,I,H,C(250)	369	
Stewart & Stevens	GC248N6	248	R,S,H	371
Tecogen, Inc	Micro T35 AP	35	R,A,H	373
	T35 SP	35	R,S,H	375
	InVerde Ultera (INV-100e+)	100	R,I,H	377
	InVerde Ultera (INV-100e+-CCHP)	100	R,I,H,C(39)	379
	InVerde Ultera (INV-125e+)	125	R,I,H	381
	InVerde Ultera (INV-200e+)	200	R,I,H	383
	InVerde Ultera (INV-200e+-CCHP)	200	R,I,H,C(77)	385
	InVerde Ultera (INV-300e+)	300	R,I,H	387
	InVerde Ultera (INV-300e+-CCHP)	300	R,I,H,C(126)	389
	InVerda Ultera (INV-400e+)	400	R,I,H	391

Tecogen, Inc	InVerda Ultera (INV-500e+)	500	R,I,H	393
	InVerda Ultera (INV-600e+)	600	R,I,H	395
	InVerda Ultera (INV-1000e+)	1000	R,I,H	397
Unison Energy	UE-patruus100NG	100	R,S,H	399
	UE-patruus160NG	160	R,S,H	401
	UE-patruus200NG	200	R,S,H	403



2G Energy, Inc.

patruus100NG

100kW

Description

Type of prime mover	Number of prime mover units	Synchronous or Inverter	Type	Black-Start Capable	Qualification Status
RICE	1	Synchronous	CHP-HW	Yes	Conditionally qualified

Performance

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	Hot Water to Building @ 194°F			NOx lbs/MWh
					MBtu/h	Return °F	Net System Efficiency % (HHV)	
100%	59°F	1077	95	30.1	487	<172	75.3	1.6
	95°F	1077	95	30.1	487	<172	75.3	1.6
75%	59°F	837	70	28.5	389	<172	75.0	1.6
	95°F	837	70	28.5	389	<172	75.0	1.6
50%	59°F	593	46	26.5	287	<172	74.9	1.6
	95°F	593	46	26.5	287	<172	74.9	1.6

Notes: 1 – All performance data based on fuel energy content of 1067 Btu/CF HHV

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*	45"	129"	71"	Approx. 7.165
Core system based on minimum width*	45"	129"	71"	
Heat Rejection subsystem*	Included in module	Included in module	Included in module	Included in module
Largest part for delivery	45"	129"	71"	Approx. 7.165
Heaviest part for delivery	45"	129"	71"	Approx. 7.165

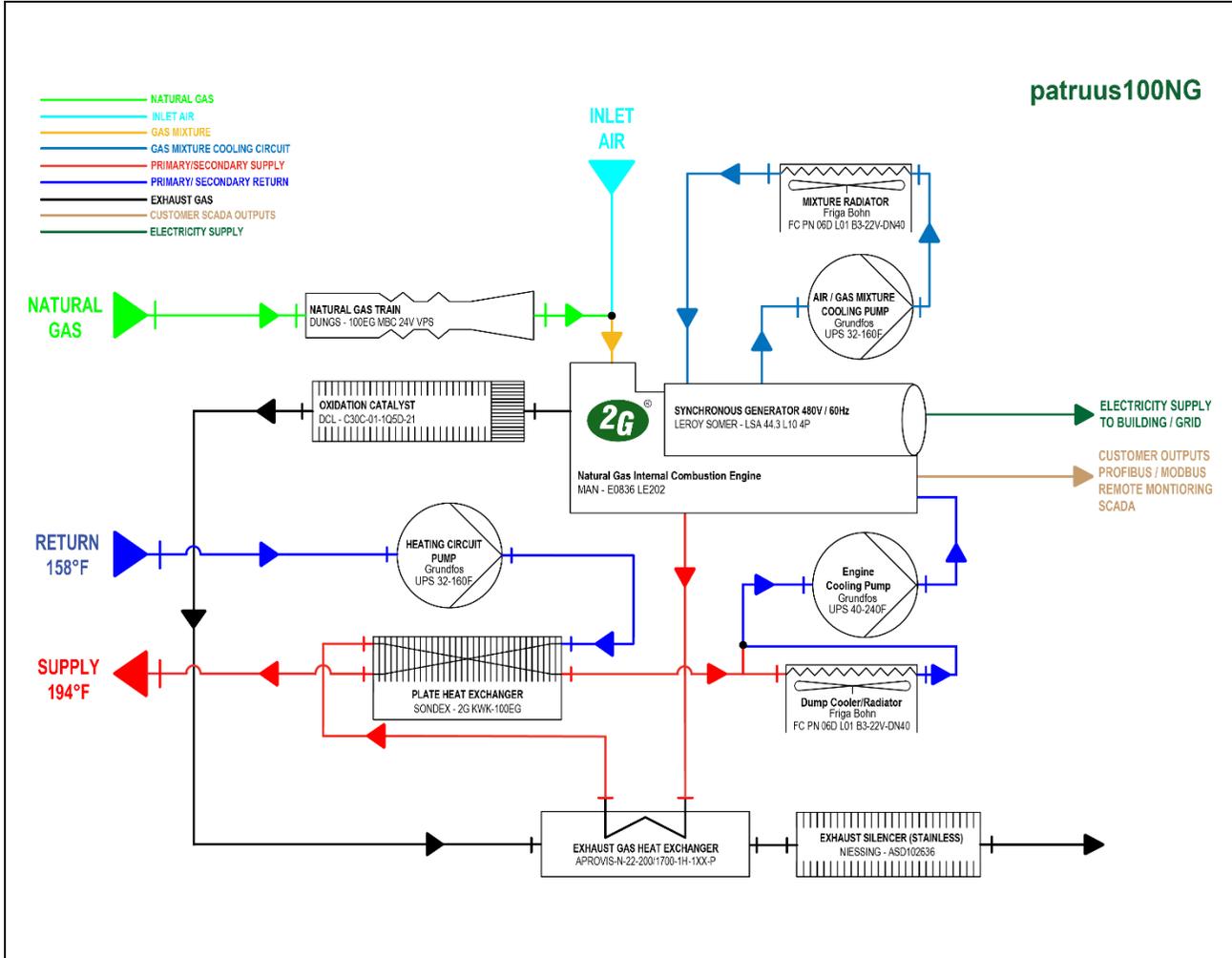
*Includes maintenance clearances.

Vendor Information

2G Energy, Inc. 205 Commercial Drive St. Augustine, FL 32092 (904) 579-3217 j.winfree@2-g.com www.2g-energy.com
--

Vendor Statement

	<p>2G[®] is a global leader in manufacturing highly efficient CHP cogeneration power plants. Known for producing the world's most advanced and efficient cogeneration modules, and as per March 2016, having more than 5000 CHP's installed and operating, 2G[®] is specialized in modular energy conversion technologies. All cogeneration systems are designed and manufactured "connection ready", are fully factory tested and come as complete "Plug & Play" modules. This allows for an extremely fast and cost-effective installation, increases product reliability, and assures trouble-free operations. (Please watch our video located at www.2g-energy.com).</p> <p>*We offer fully containerized and inside building installations.</p> <p style="text-align: center;"><i>“Quality... is everything we do!”</i></p>
--	--



General Notes:

- Heat exchangers are sized to deliver 194°F to the building. Alternative heat exchangers can be selected to supply 120°F or 180°F as required. CHP is equipped with return riser to supply 194°F supply temperature, independent of return temperature.
- Our modules will be configured to produce NOx < 1.6 lbs/MW/hr. Lower emission requirements are achievable with our additional exhaust treatment options.
- NET kW shown above assumes the module has been installed and configured to self-support parasitic loads. All modules can be installed and configured to maximize exported kW to the grid or building; while parasitic loads are supported by utility.
- All 2G Modules up to 500kW can be configured as a “twin-pack” system – meaning the system can be supplied with 2 of the systems shown above and integrated into a single containerized package. This will then make the system eligible for N+1 configuration. Contact 2G Energy for additional information.

The above P&ID displays only the basic configuration components of our modules. We provide a wide range of optional components and configurations to maximize the value of CHP technology for each specific project.



2G Energy, Inc.

patruus100NG-S1

100kW

Description

Type of prime mover	Number of prime mover units	Synchronous or Inverter	Type	Black-Start Capable	Qualification Status
RICE	1	Synchronous	CHP Steam	Yes	Conditionally qualified

Performance

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	Steam @ 10 psig			NOx lbs/MWh
					MBtu/h	Water Inlet Temperature °F	Net System Efficiency % (HHV)	
100%	59°F	1077	95	30.1	487	180	75.3	1.6
	95°F	1077	95	30.1	487	180	75.3	1.6
75%	59°F	837	70	28.5	389	180	75.0	1.6
	95°F	837	70	28.5	389	180	75.0	1.6
50%	59°F	593	46	26.5	287	180	74.9	1.6
	95°F	593	46	26.5	287	180	74.9	1.6

Notes: 1 – All performance data based on fuel energy content of 1067 Btu/CF HHV

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*	45"	129"	71"	Approx. 7.165
Core system based on minimum width*	45"	129"	71"	
Heat Rejection subsystem*	Included in module	Included in module	Included in module	Included in module
Largest part for delivery	45"	129"	71"	Approx. 7.165
Heaviest part for delivery	45"	129"	71"	Approx. 7.165

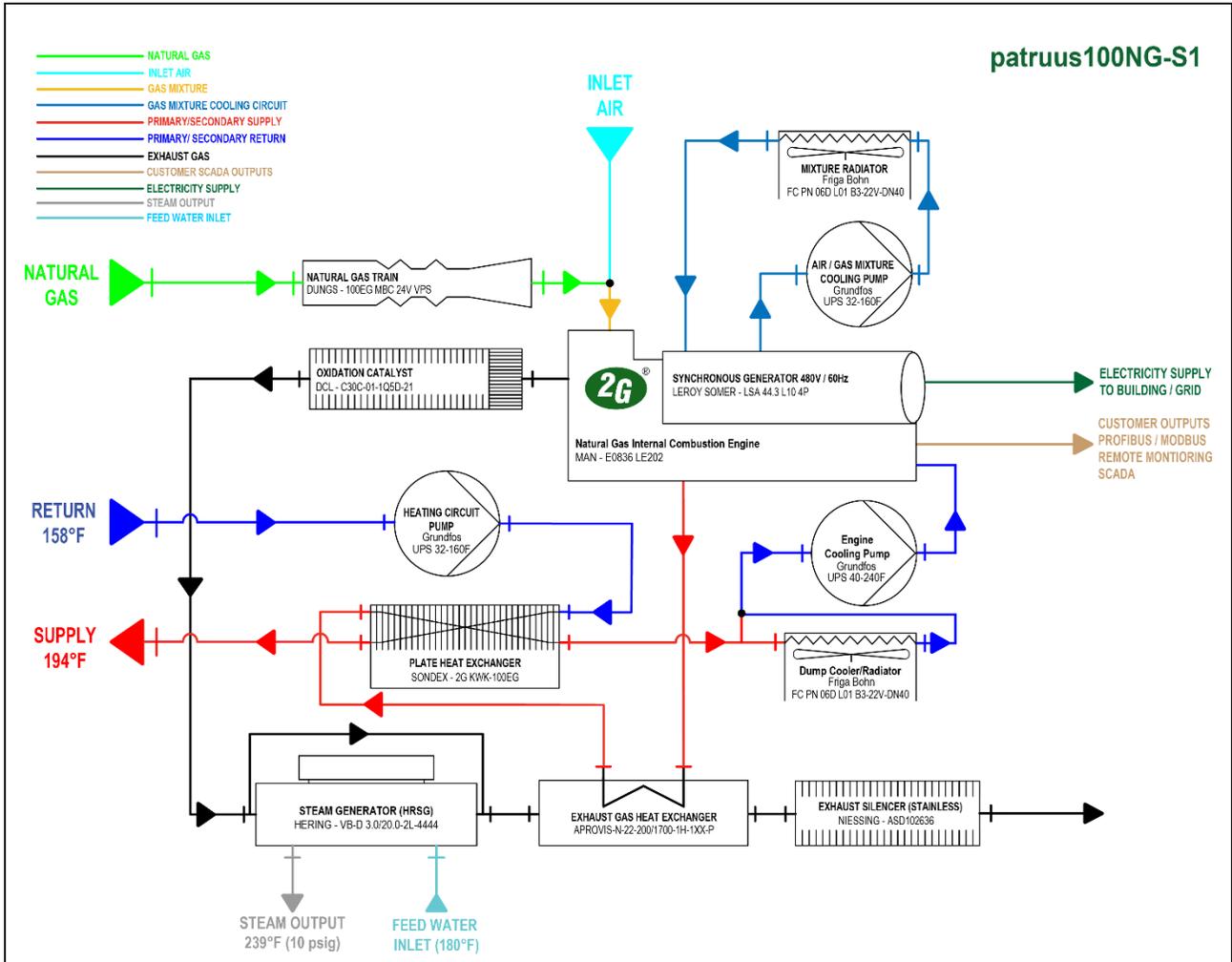
*Includes maintenance clearances.

Vendor Information

2G Energy, Inc. 205 Commercial Drive St. Augustine, FL 32092 (904) 579-3217 j.winfree@2-g.com www.2g-energy.com
--

Vendor Statement

	<p>2G[®] is a global leader in manufacturing highly efficient CHP cogeneration power plants. Known for producing the world's most advanced and efficient cogeneration modules, and as per March 2016, having more than 5000 CHP's installed and operating, 2G[®] is specialized in modular energy conversion technologies. All cogeneration systems are designed and manufactured "connection ready", are fully factory tested and come as complete "Plug & Play" modules. This allows for an extremely fast and cost-effective installation, increases product reliability, and assures trouble-free operations. (Please watch our video located at www.2g-energy.com).</p> <p>*We offer fully containerized and inside building installations.</p> <p style="text-align: center;"><i>“Quality... is everything we do!”</i></p>
--	--



General Notes:

- Heat exchangers are sized to deliver 194°F to the building. Alternative heat exchangers can be selected to supply 120°F or 180°F as required. CHP is equipped with return riser to supply 194°F supply temperature, independent of return temperature.
- Our modules will be configured to produce NOx < 1.6 lbs/MW/hr. Lower emission requirements are achievable with our additional exhaust treatment options.
- NET kW shown above assumes the module has been installed and configured to self-support parasitic loads. All modules can be installed and configured to maximize exported kW to the grid or building; while parasitic loads are supported by utility.
- All 2G Modules up to 500kW can be configured as a "twin-pack" system – meaning the system can be supplied with 2 of the systems shown above and integrated into a single containerized package. This will then make the system eligible for N+1 configuration. Contact 2G Energy for additional information.

The above P&ID displays only the basic configuration components of our modules. We provide a wide range of optional components and configurations to maximize the value of CHP technology for each specific project.



2G Energy, Inc.

patruus100NG-S2

100kW

Description

Type of prime mover	Number of prime mover units	Synchronous or Inverter	Type	Black-Start Capable	Qualification Status
RICE	1	Synchronous	CHP Steam	Yes	Conditionally qualified

Performance

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	Steam @ 100 psig			NOx lbs/MWh
					MBtu/h	Water Inlet Temperature °F	Net System Efficiency % (HHV)	
100%	59°F	1077	95	30.1	487	180	75.3	1.6
	95°F	1077	95	30.1	487	180	75.3	1.6
75%	59°F	837	70	28.5	389	180	75.0	1.6
	95°F	837	70	28.5	389	180	75.0	1.6
50%	59°F	593	46	26.5	287	180	74.9	1.6
	95°F	593	46	26.5	287	180	74.9	1.6

Notes: 1 – All performance data based on fuel energy content of 1067 Btu/CF HHV

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*	45"	129"	71"	Approx. 7.165
Core system based on minimum width*	45"	129"	71"	
Heat Rejection subsystem*	Included in module	Included in module	Included in module	Included in module
Largest part for delivery	45"	129"	71"	Approx. 7.165
Heaviest part for delivery	45"	129"	71"	Approx. 7.165

*Includes maintenance clearances.

Vendor Information

2G Energy, Inc. 205 Commercial Drive St. Augustine, FL 32092 (904) 579-3217 j.winfree@2-g.com www.2g-energy.com
--

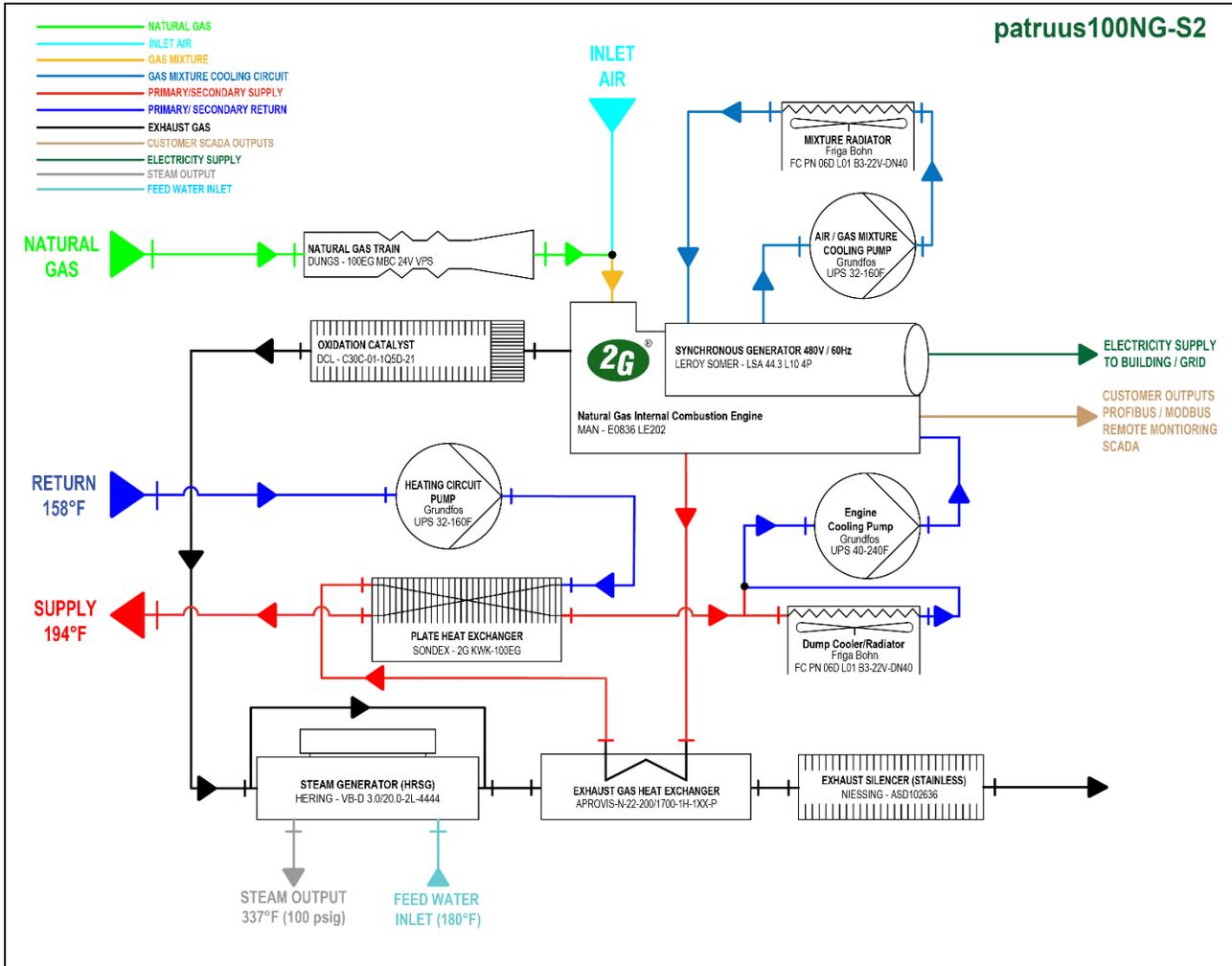
Vendor Statement

	<p>2G[®] is a global leader in manufacturing highly efficient CHP cogeneration power plants. Known for producing the world's most advanced and efficient cogeneration modules, and as per March 2016, having more than 5000 CHP's installed and operating, 2G[®] is specialized in modular energy conversion technologies. All cogeneration systems are designed and manufactured "connection ready", are fully factory tested and come as complete "Plug & Play" modules. This allows for an extremely fast and cost-effective installation, increases product reliability, and assures trouble-free operations. (Please watch our video located at www.2g-energy.com).</p> <p>*We offer fully containerized and inside building installations.</p> <p style="text-align: center;"><i>“Quality... is everything we do!”</i></p>
--	--

2G Energy, Inc.

patruus100NG-S2

100kW



General Notes:

- Heat exchangers are sized to deliver 194°F to the building. Alternative heat exchangers can be selected to supply 120°F or 180°F as required. CHP is equipped with return riser to supply 194°F supply temperature, independent of return temperature.
- Our modules will be configured to produce NOx < 1.6 lbs/MW/hr. Lower emission requirements are achievable with our additional exhaust treatment options.
- NET kW shown above assumes the module has been installed and configured to self-support parasitic loads. All modules can be installed and configured to maximize exported kW to the grid or building; while parasitic loads are supported by utility.
- All 2G Modules up to 500kW can be configured as a "twin-pack" system – meaning the system can be supplied with 2 of the systems shown above and integrated into a single containerized package. This will then make the system eligible for N+1 configuration. Contact 2G Energy for additional information.

The above P&ID displays only the basic configuration components of our modules. We provide a wide range of optional components and configurations to maximize the value of CHP technology for each specific project.



2G Energy, Inc.

patruus160NG

160kW

Description

Type of prime mover	Number of prime mover units	Synchronous or Inverter	Type	Black-Start Capable	Qualification Status
RICE	1	Synchronous	CHP-HW	Yes	Conditionally qualified

Performance

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	Hot Water to Building @ 194°F			NOx lbs/MWh
					MBtu/h	Return °F	Net System Efficiency % (HHV)	
100%	59°F	1665	156	32.0	825	<172	81.5	1.6
	95°F	1665	156	32.0	825	<172	81.5	1.6
75%	59°F	1324	116	29.9	682	<172	81.4	1.6
	95°F	1324	116	29.9	682	<172	81.4	1.6
50%	59°F	994	76	26.5	536	<172	80.0	1.6
	95°F	994	76	26.5	536	<172	80.0	1.6

Notes: 1 – All performance data based on fuel energy content of 1067 Btu/CF HHV

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*	3'10"	11'3"	6'4"	8,377
Core system based on minimum width*	3'10"	11'3"	6'4"	
Heat Rejection subsystem*	Included in module	Included in module	Included in module	Included in module
Largest part for delivery	3'10"	11'3"	6'4"	8,337
Heaviest part for delivery	3'10"	11'3"	6'4"	8,337

*Includes maintenance clearances.

Vendor Information

2G Energy, Inc. 205 Commercial Drive St. Augustine, FL 32092 (904) 579-3217 j.winfree@2-g.com www.2g-energy.com
--

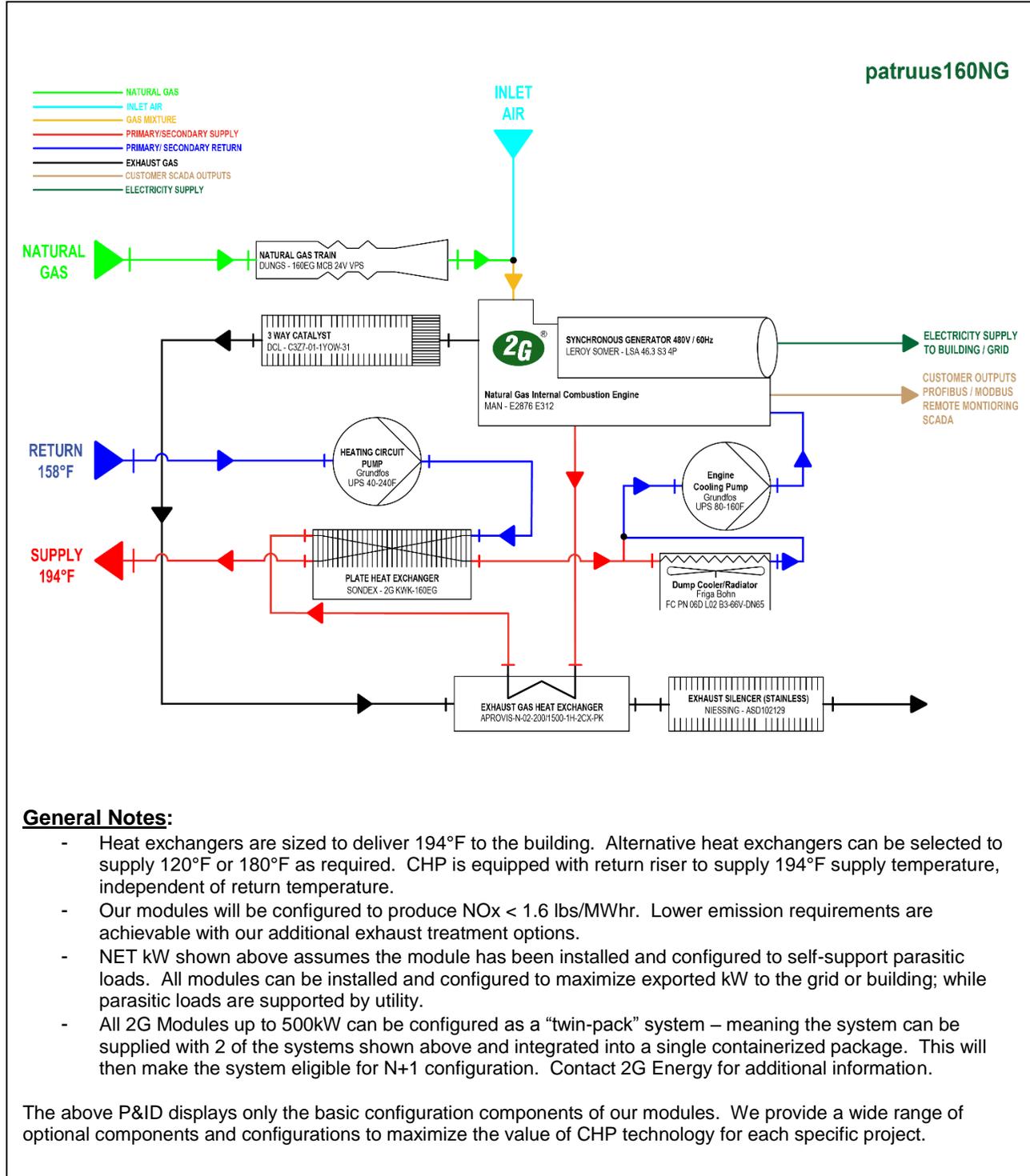
Vendor Statement

	<p>2G[®] is a global leader in manufacturing highly efficient CHP cogeneration power plants. Known for producing the world's most advanced and efficient cogeneration modules, and as per March 2016, having more than 5000 CHP's installed and operating, 2G[®] is specialized in modular energy conversion technologies. All cogeneration systems are designed and manufactured "connection ready", are fully factory tested and come as complete "Plug & Play" modules. This allows for an extremely fast and cost-effective installation, increases product reliability, and assures trouble-free operations. (Please watch our video located at www.2g-energy.com).</p> <p>*We offer fully containerized and inside building installations.</p> <p style="text-align: center;"><i>“Quality... is everything we do!”</i></p>
--	--

2G Energy, Inc.

patruus160NG

160kW





2G Energy, Inc.

patruus160NG-S1

160kW

Description

Type of prime mover	Number of prime mover units	Synchronous or Inverter	Type	Black-Start Capable	Qualification Status
RICE	1	Synchronous	CHP Steam	Yes	Conditionally qualified

Performance

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	Steam @ 10 psig			NOx lbs/MWh
					MBtu/h	Water Inlet Temperature °F	Net System Efficiency % (HHV)	
100%	59°F	1665	156	32.0	825	180	81.5	1.6
	95°F	1665	156	32.0	825	180	81.5	1.6
75%	59°F	1324	116	29.9	682	180	81.4	1.6
	95°F	1324	116	29.9	682	180	81.4	1.6
50%	59°F	994	76	26.5	536	180	80.0	1.6
	95°F	994	76	26.5	536	180	80.0	1.6

Notes: 1 – All performance data based on fuel energy content of 1067 Btu/CF HHV

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*	3'10"	11'3"	6'4"	8,377
Core system based on minimum width*	3'10"	11'3"	6'4"	
Heat Rejection subsystem*	Included in module	Included in module	Included in module	Included in module
Largest part for delivery	3'10"	11'3"	6'4"	8,337
Heaviest part for delivery	3'10"	11'3"	6'4"	8,337

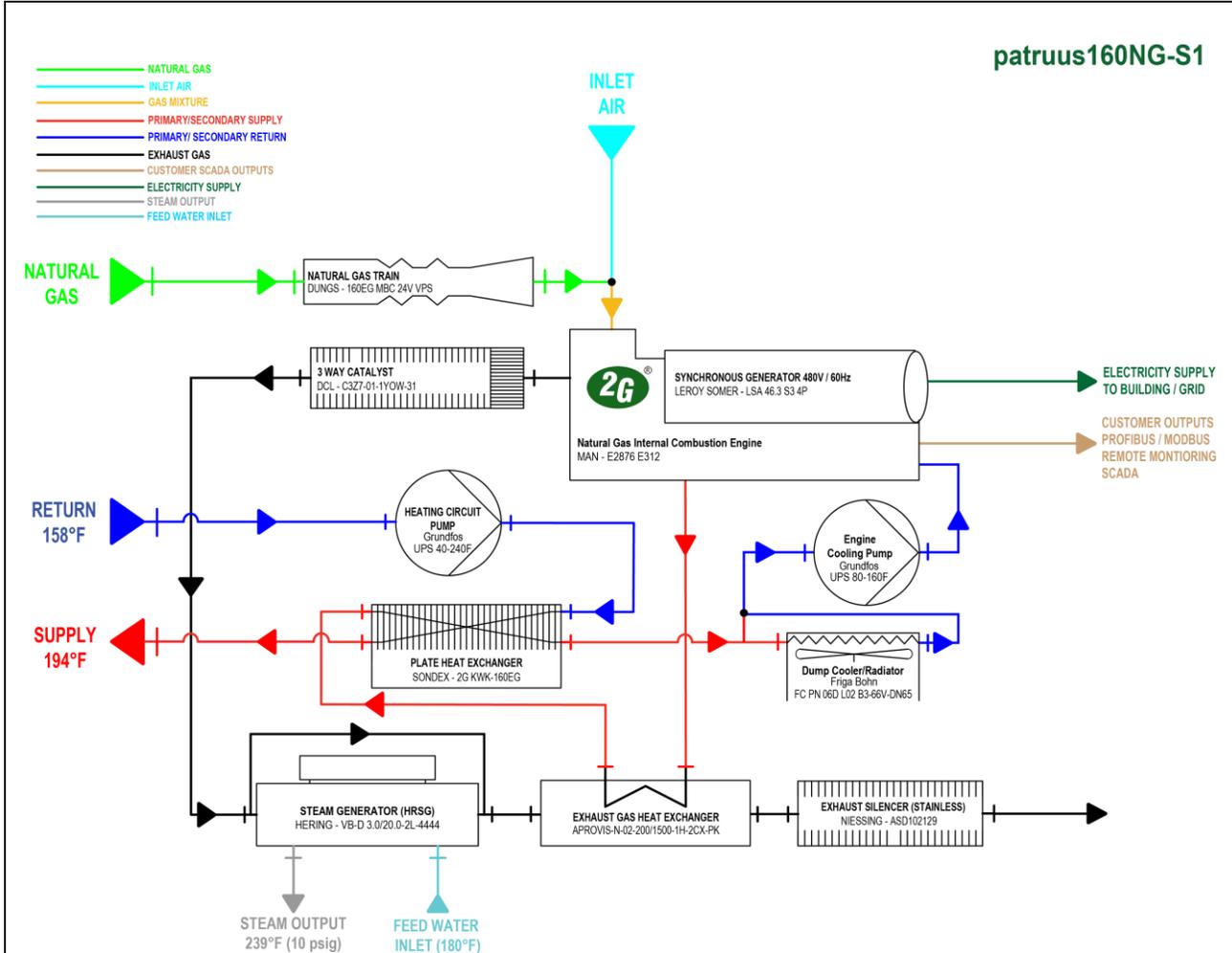
*Includes maintenance clearances.

Vendor Information

2G Energy, Inc. 205 Commercial Drive St. Augustine, FL 32092 (904) 579-3217 j.winfree@2-g.com www.2g-energy.com
--

Vendor Statement

	<p>2G[®] is a global leader in manufacturing highly efficient CHP cogeneration power plants. Known for producing the world's most advanced and efficient cogeneration modules, and as per March 2016, having more than 5000 CHP's installed and operating, 2G[®] is specialized in modular energy conversion technologies. All cogeneration systems are designed and manufactured "connection ready", are fully factory tested and come as complete "Plug & Play" modules. This allows for an extremely fast and cost-effective installation, increases product reliability, and assures trouble-free operations. (Please watch our video located at www.2g-energy.com).</p> <p>*We offer fully containerized and inside building installations.</p> <p style="text-align: center;"><i>“Quality... is everything we do!”</i></p>
--	--



General Notes:

- Heat exchangers are sized to deliver 194°F to the building. Alternative heat exchangers can be selected to supply 120°F or 180°F as required. CHP is equipped with return riser to supply 194°F supply temperature, independent of return temperature.
- Our modules will be configured to produce NOx < 1.6 lbs/MW/hr. Lower emission requirements are achievable with our additional exhaust treatment options.
- NET kW shown above assumes the module has been installed and configured to self-support parasitic loads. All modules can be installed and configured to maximize exported kW to the grid or building; while parasitic loads are supported by utility.
- All 2G Modules up to 500kW can be configured as a "twin-pack" system – meaning the system can be supplied with 2 of the systems shown above and integrated into a single containerized package. This will then make the system eligible for N+1 configuration. Contact 2G Energy for additional information.

The above P&ID displays only the basic configuration components of our modules. We provide a wide range of optional components and configurations to maximize the value of CHP technology for each specific project.

2G Energy, Inc.

patruus160NG-S2

160kW

Description

Type of prime mover	Number of prime mover units	Synchronous or Inverter	Type	Black-Start Capable	Qualification Status
RICE	1	Synchronous	CHP Steam	Yes	Conditionally qualified

Performance

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	Steam @ 100 psig			NOx lbs/MWh
					MBtu/h	Water Inlet Temperature °F	Net System Efficiency % (HHV)	
100%	59°F	1665	156	32.0	825	180	81.5	1.6
	95°F	1665	156	32.0	825	180	81.5	1.6
75%	59°F	1324	116	29.9	682	180	81.4	1.6
	95°F	1324	116	29.9	682	180	81.4	1.6
50%	59°F	994	76	26.5	536	180	80.0	1.6
	95°F	994	76	26.5	536	180	80.0	1.6

Notes: 1 – All performance data based on fuel energy content of 1067 Btu/CF HHV

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*	3'10"	11'3"	6'4"	8,377
Core system based on minimum width*	3'10"	11'3"	6'4"	
Heat Rejection subsystem*	Included in module	Included in module	Included in module	Included in module
Largest part for delivery	3'10"	11'3"	6'4"	8,337
Heaviest part for delivery	3'10"	11'3"	6'4"	8,337

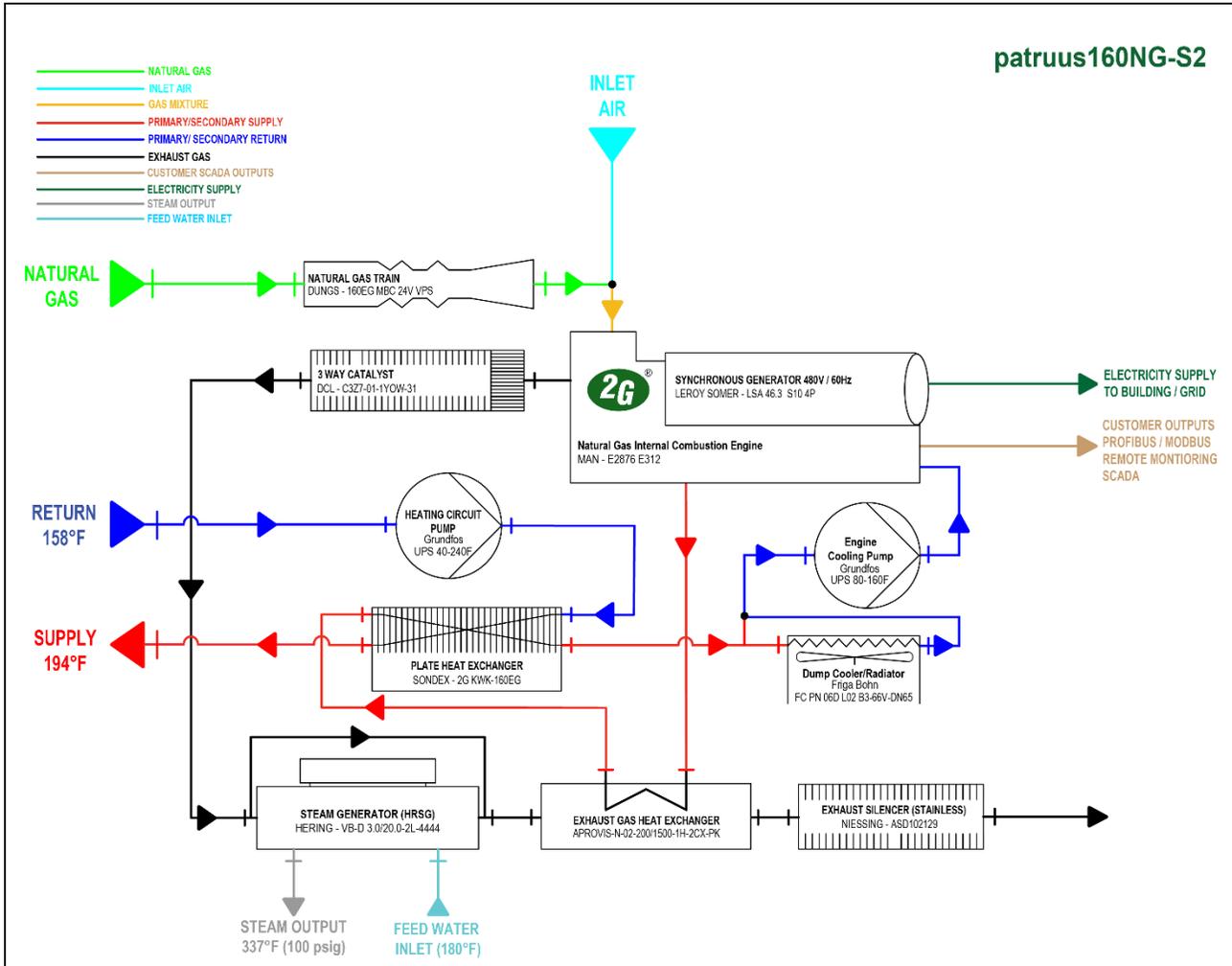
*Includes maintenance clearances.

Vendor Information

2G Energy, Inc. 205 Commercial Drive St. Augustine, FL 32092 (904) 579-3217 j.winfree@2-g.com www.2g-energy.com
--

Vendor Statement

	2G [®] is a global leader in manufacturing highly efficient CHP cogeneration power plants. Known for producing the world's most advanced and efficient cogeneration modules, and as per March 2016, having more than 5000 CHP's installed and operating, 2G [®] is specialized in modular energy conversion technologies. All cogeneration systems are designed and manufactured "connection ready", are fully factory tested and come as complete "Plug & Play" modules. This allows for an extremely fast and cost-effective installation, increases product reliability, and assures trouble-free operations. (Please watch our video located at www.2g-energy.com).
	*We offer fully containerized and inside building installations.
	<p><i>“Quality... is everything we do!”</i></p>



General Notes:

- Heat exchangers are sized to deliver 194°F to the building. Alternative heat exchangers can be selected to supply 120°F or 180°F as required. CHP is equipped with return riser to supply 194°F supply temperature, independent of return temperature.
- Our modules will be configured to produce NOx < 1.6 lbs/MW/hr. Lower emission requirements are achievable with our additional exhaust treatment options.
- NET kW shown above assumes the module has been installed and configured to self-support parasitic loads. All modules can be installed and configured to maximize exported kW to the grid or building; while parasitic loads are supported by utility.
- All 2G Modules up to 500kW can be configured as a "twin-pack" system – meaning the system can be supplied with 2 of the systems shown above and integrated into a single containerized package. This will then make the system eligible for N+1 configuration. Contact 2G Energy for additional information.

The above P&ID displays only the basic configuration components of our modules. We provide a wide range of optional components and configurations to maximize the value of CHP technology for each specific project.



2G Energy, Inc.

patruus200NG

200kW

Description

Type of prime mover	Number of prime mover units	Synchronous or Inverter	Type	Black-Start Capable	Qualification Status
RICE	1	Synchronous	CHP-HW	Yes	Conditionally qualified

Performance

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	Hot Water to Building @ 194°F			NOx lbs/MWh
					MBtu/h	Return °F	Net System Efficiency % (HHV)	
100%	59°F	2127	194	31.1	959	<172	76.2	1.6
	95°F	2127	194	31.1	959	<172	76.2	1.6
75%	59°F	1712	144	28.7	819	<172	76.6	1.6
	95°F	1712	144	28.7	819	<172	76.6	1.6
50%	59°F	1272	95	25.5	649	<172	76.5	1.6
	95°F	1272	95	25.5	649	<172	76.5	1.6

Notes: 1 – All performance data based on fuel energy content of 1067 Btu/CF HHV

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*	51"	146"	87"	Approx. 8,377
Core system based on minimum width*	51"	146"	87"	
Heat Rejection subsystem*	Included in module	Included in module	Included in module	Included in module
Largest part for delivery	51"	146"	87"	Approx. 8,377
Heaviest part for delivery	51"	146"	87"	Approx. 8,377

*Includes maintenance clearances.

Vendor Information

2G Energy, Inc. 205 Commercial Drive St. Augustine, FL 32092 (904) 579-3217 j.winfree@2-g.com www.2g-energy.com
--

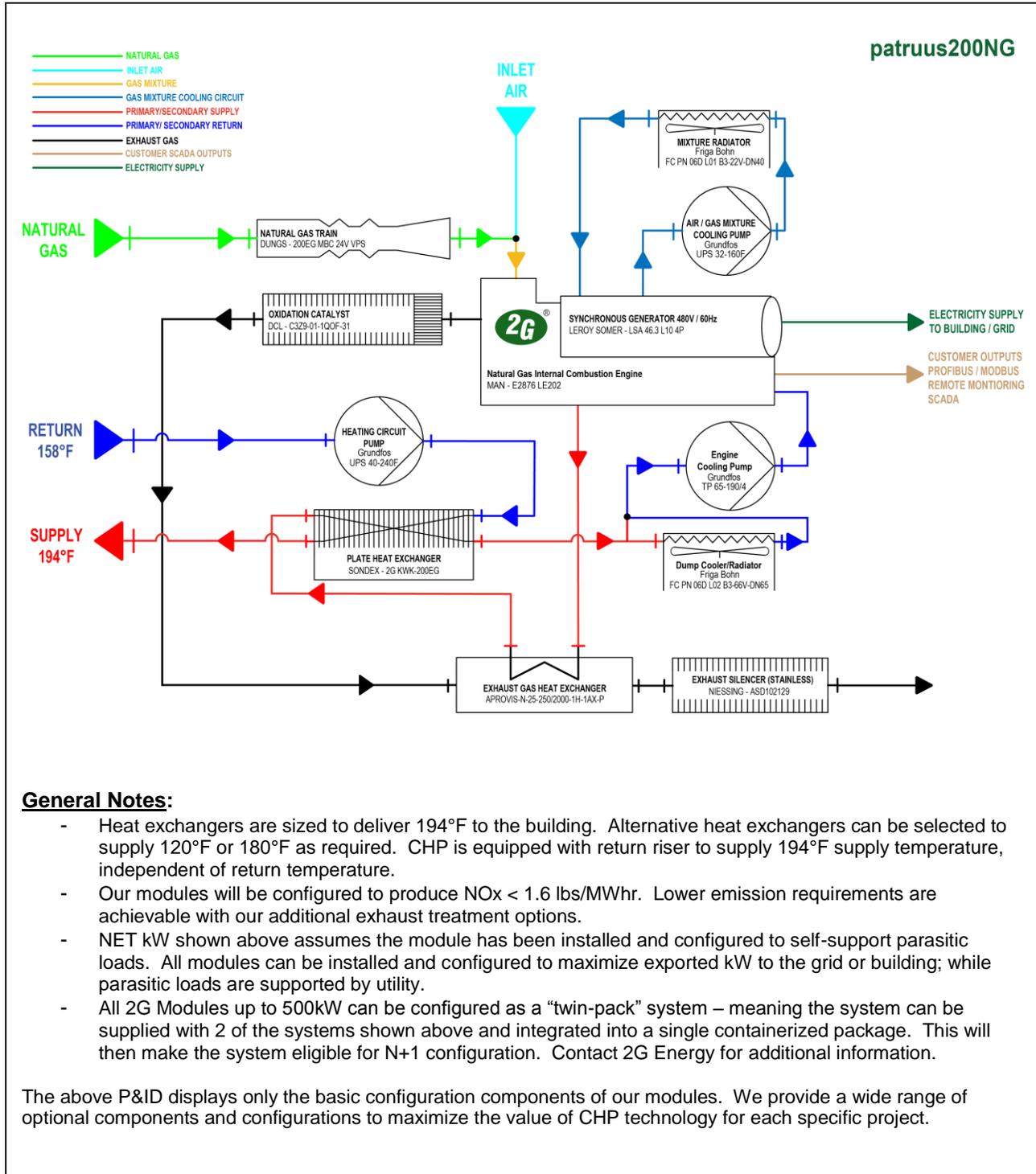
Vendor Statement

	<p>2G[®] is a global leader in manufacturing highly efficient CHP cogeneration power plants. Known for producing the world's most advanced and efficient cogeneration modules, and as per March 2016, having more than 5000 CHP's installed and operating, 2G[®] is specialized in modular energy conversion technologies. All cogeneration systems are designed and manufactured "connection ready", are fully factory tested and come as complete "Plug & Play" modules. This allows for an extremely fast and cost-effective installation, increases product reliability, and assures trouble-free operations. (Please watch our video located at www.2g-energy.com).</p> <p>*We offer fully containerized and inside building installations.</p> <p style="text-align: center;"><i>“Quality... is everything we do!”</i></p>
---	--

2G Energy, Inc.

patruus200NG

200kW





2G Energy, Inc.

patruus200NG-S1

200kW

Description

Type of prime mover	Number of prime mover units	Synchronous or Inverter	Type	Black-Start Capable	Qualification Status
RICE	1	Synchronous	CHP Steam	Yes	Conditionally qualified

Performance

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	Steam @ 10 psig			NOx lbs/MWh
					MBtu/h	Water Inlet Temperature °F	Net System Efficiency % (HHV)	
100%	59°F	2127	194	31.1	959	180	76.2	1.6
	95°F	2127	194	31.1	959	180	76.2	1.6
75%	59°F	1712	144	28.7	819	180	76.6	1.6
	95°F	1712	144	28.7	819	180	76.6	1.6
50%	59°F	1272	95	25.5	649	180	76.5	1.6
	95°F	1272	95	25.5	649	180	76.5	1.6

Notes: 1 – All performance data based on fuel energy content of 1067 Btu/CF HHV

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*	51"	146"	87"	Approx. 8,377
Core system based on minimum width*	51"	146"	87"	
Heat Rejection subsystem*	Included in module	Included in module	Included in module	Included in module
Largest part for delivery	51"	146"	87"	Approx. 8,377
Heaviest part for delivery	51"	146"	87"	Approx. 8,377

*Includes maintenance clearances.

Vendor Information

2G Energy, Inc. 205 Commercial Drive St. Augustine, FL 32092 (904) 579-3217 j.winfree@2-g.com www.2g-energy.com
--

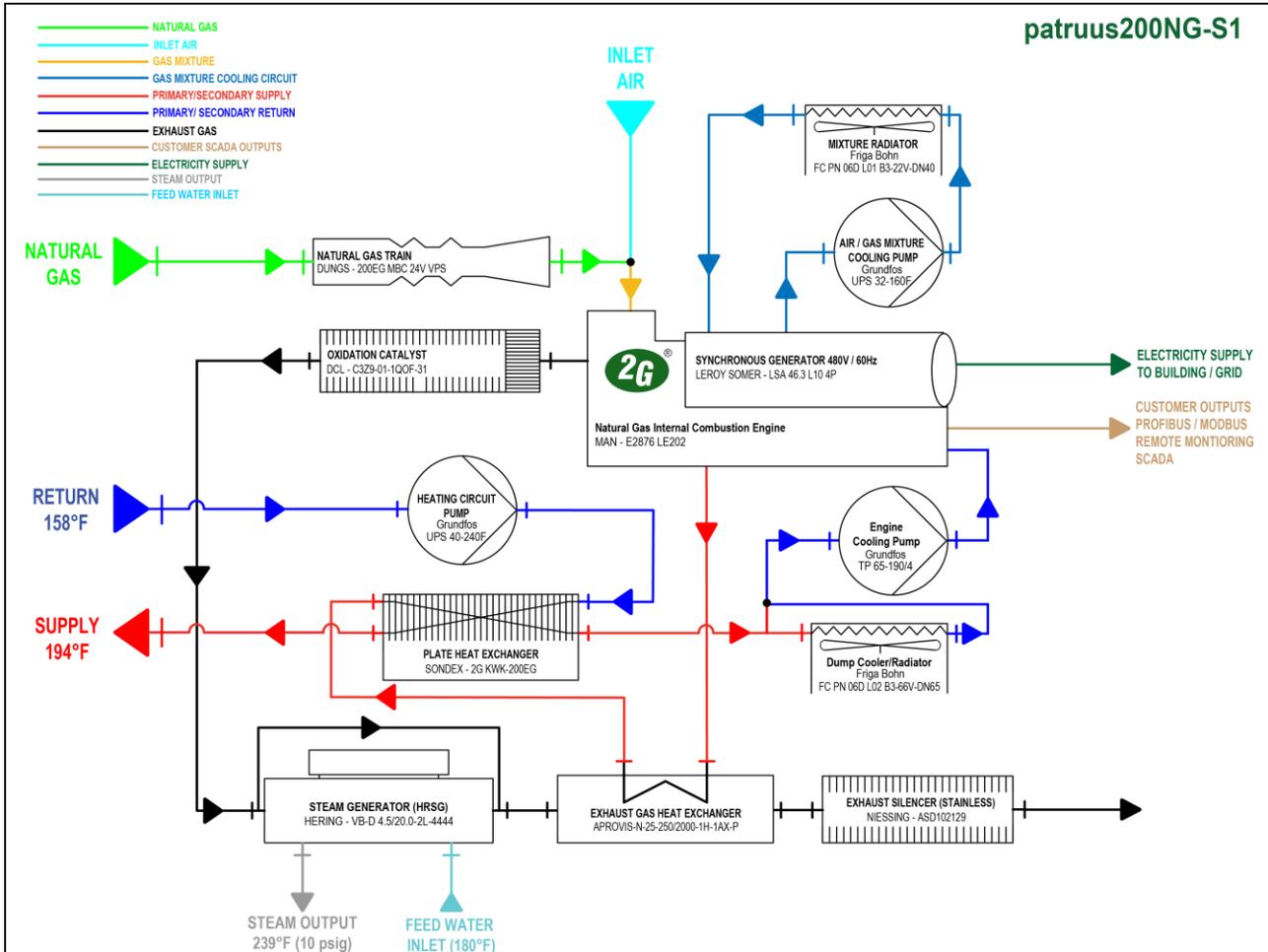
Vendor Statement

	<p>2G[®] is a global leader in manufacturing highly efficient CHP cogeneration power plants. Known for producing the world's most advanced and efficient cogeneration modules, and as per March 2016, having more than 5000 CHP's installed and operating, 2G[®] is specialized in modular energy conversion technologies. All cogeneration systems are designed and manufactured "connection ready", are fully factory tested and come as complete "Plug & Play" modules. This allows for an extremely fast and cost-effective installation, increases product reliability, and assures trouble-free operations. (Please watch our video located at www.2g-energy.com).</p> <p>*We offer fully containerized and inside building installations.</p> <p style="text-align: center;"><i>“Quality... is everything we do!”</i></p>
--	--

2G Energy, Inc.

patruus200NG-S1

200kW



General Notes:

- Heat exchangers are sized to deliver 194°F to the building. Alternative heat exchangers can be selected to supply 120°F or 180°F as required. CHP is equipped with return riser to supply 194°F supply temperature, independent of return temperature.
- Our modules will be configured to produce NOx < 1.6 lbs/MW/hr. Lower emission requirements are achievable with our additional exhaust treatment options.
- NET kW shown above assumes the module has been installed and configured to self-support parasitic loads. All modules can be installed and configured to maximize exported kW to the grid or building; while parasitic loads are supported by utility.
- All 2G Modules up to 500kW can be configured as a “twin-pack” system – meaning the system can be supplied with 2 of the systems shown above and integrated into a single containerized package. This will then make the system eligible for N+1 configuration. Contact 2G Energy for additional information.

The above P&ID displays only the basic configuration components of our modules. We provide a wide range of optional components and configurations to maximize the value of CHP technology for each specific project.



2G Energy, Inc.

patruus200NG-S2

200kW

Description

Type of prime mover	Number of prime mover units	Synchronous or Inverter	Type	Black-Start Capable	Qualification Status
RICE	1	Synchronous	CHP Steam	Yes	Conditionally qualified

Performance

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	Steam @ 100 psig			NOx lbs/MWh
					MBtu/h	Water Inlet Temperature °F	Net System Efficiency % (HHV)	
100%	59°F	2127	194	31.1	959	180	76.2	1.6
	95°F	2127	194	31.1	959	180	76.2	1.6
75%	59°F	1712	144	28.7	819	180	76.6	1.6
	95°F	1712	144	28.7	819	180	76.6	1.6
50%	59°F	1272	95	25.5	649	180	76.5	1.6
	95°F	1272	95	25.5	649	180	76.5	1.6

Notes: 1 – All performance data based on fuel energy content of 1067 Btu/CF HHV

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*	51"	146"	87"	Approx. 8,377
Core system based on minimum width*	51"	146"	87"	
Heat Rejection subsystem*	Included in module	Included in module	Included in module	Included in module
Largest part for delivery	51"	146"	87"	Approx. 8,377
Heaviest part for delivery	51"	146"	87"	Approx. 8,377

*Includes maintenance clearances.

Vendor Information

2G Energy, Inc. 205 Commercial Drive St. Augustine, FL 32092 (904) 579-3217 j.winfree@2-g.com www.2g-energy.com
--

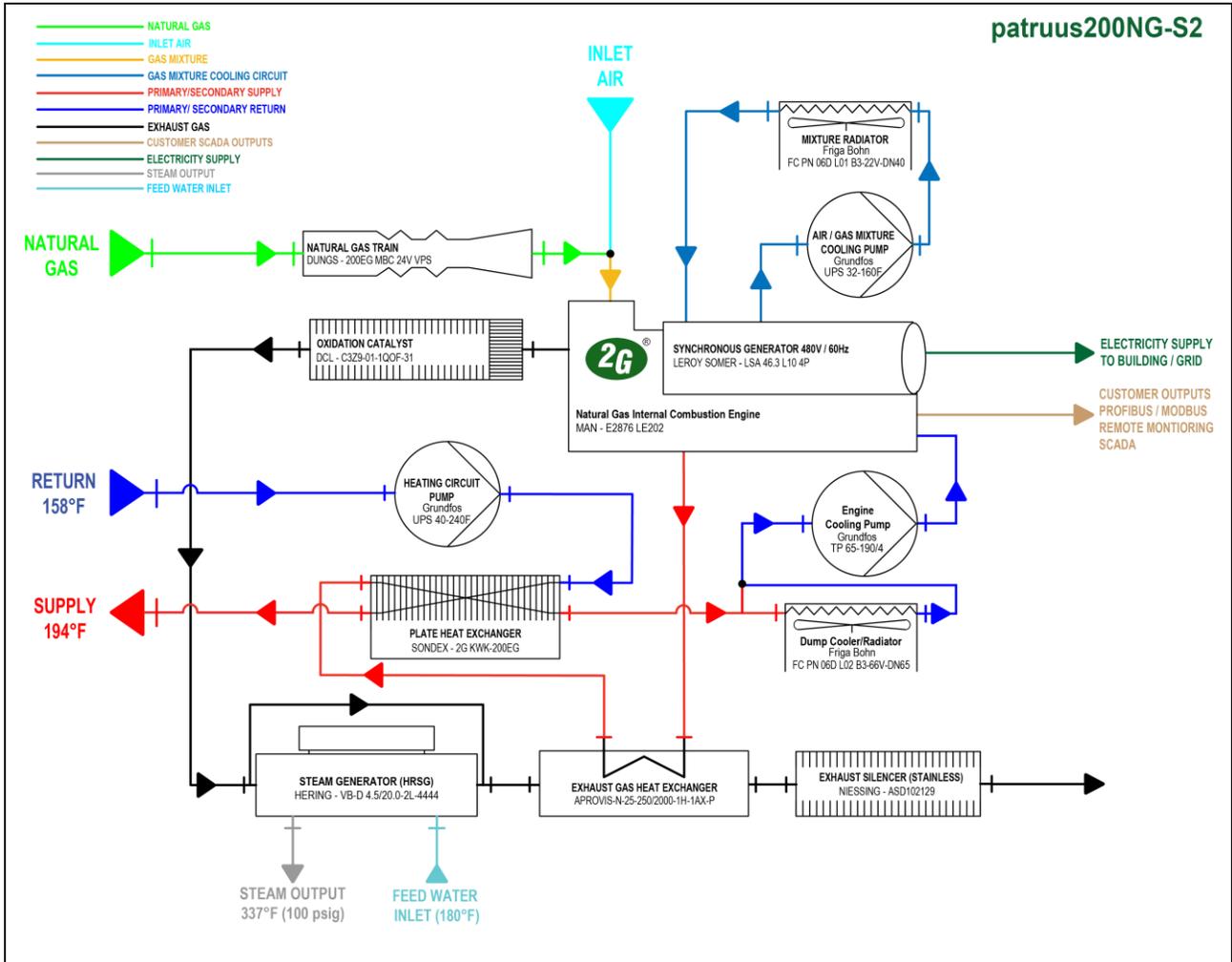
Vendor Statement

	<p>2G[®] is a global leader in manufacturing highly efficient CHP cogeneration power plants. Known for producing the world's most advanced and efficient cogeneration modules, and as per March 2016, having more than 5000 CHP's installed and operating, 2G[®] is specialized in modular energy conversion technologies. All cogeneration systems are designed and manufactured "connection ready", are fully factory tested and come as complete "Plug & Play" modules. This allows for an extremely fast and cost-effective installation, increases product reliability, and assures trouble-free operations. (Please watch our video located at www.2g-energy.com).</p> <p>*We offer fully containerized and inside building installations.</p> <p style="text-align: center;"><i>“Quality... is everything we do!”</i></p>
--	--

2G Energy, Inc.

patruus200NG-S2

200kW



General Notes:

- Heat exchangers are sized to deliver 194°F to the building. Alternative heat exchangers can be selected to supply 120°F or 180°F as required. CHP is equipped with return riser to supply 194°F supply temperature, independent of return temperature.
- Our modules will be configured to produce NOx < 1.6 lbs/MW/hr. Lower emission requirements are achievable with our additional exhaust treatment options.
- NET kW shown above assumes the module has been installed and configured to self-support parasitic loads. All modules can be installed and configured to maximize exported kW to the grid or building; while parasitic loads are supported by utility.
- All 2G Modules up to 500kW can be configured as a "twin-pack" system – meaning the system can be supplied with 2 of the systems shown above and integrated into a single containerized package. This will then make the system eligible for N+1 configuration. Contact 2G Energy for additional information.

The above P&ID displays only the basic configuration components of our modules. We provide a wide range of optional components and configurations to maximize the value of CHP technology for each specific project.



2G Energy, Inc.

agenitor206NG

220kW

Description

Type of prime mover	Number of prime mover units	Synchronous or Inverter	Type	Black-Start Capable	Qualification Status
RICE	1	Synchronous	CHP-HW	Yes	Conditionally qualified

Performance

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	Hot Water to Building @ 194°F			NOx lbs/MWh
					MBtu/h	Return °F	Net System Efficiency % (HHV)	
100%	59°F	2177	213	33.4	897	<172	74.6	1.6
	95°F	2177	213	33.4	897	<172	74.6	1.6
75%	59°F	1679	158	32.1	702	<172	73.9	1.6
	95°F	1679	158	32.1	702	<172	73.9	1.6
50%	59°F	1284	104	28.4	530	<172	70.9	1.6
	95°F	1284	104	28.4	530	<172	70.9	1.6

Notes: 1 – All performance data based on fuel energy content of 1067 Btu/CF HHV

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*	51"	146"	87"	Approx. 7,716
Core system based on minimum width*	51"	146"	87"	
Heat Rejection subsystem*	Included in module	Included in module	Included in module	Included in module
Largest part for delivery	51"	146"	87"	Approx. 7,716
Heaviest part for delivery	51"	146"	87"	Approx. 7,716

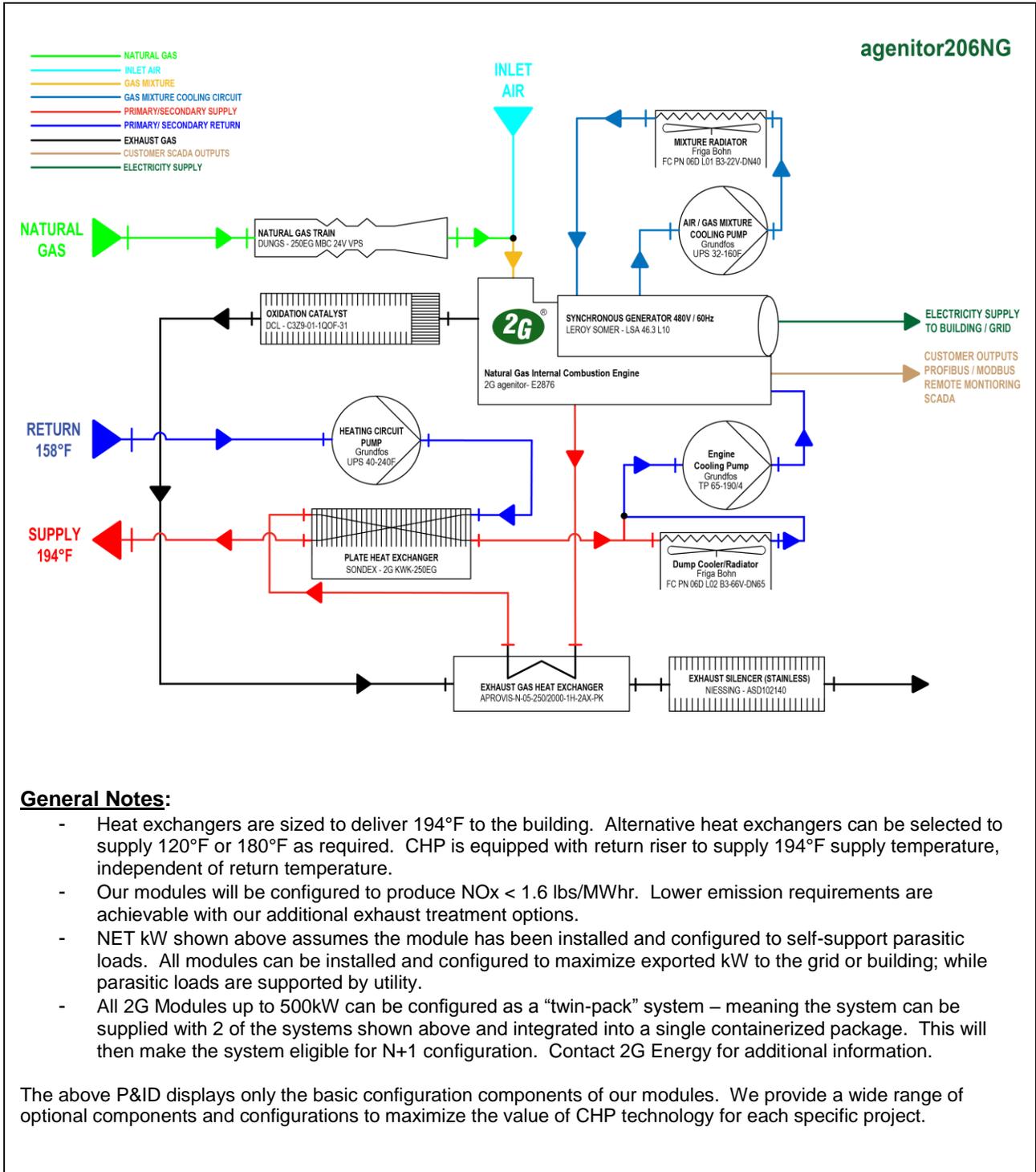
*Includes maintenance clearances.

Vendor Information

2G Energy, Inc. 205 Commercial Drive St. Augustine, FL 32092 (904) 579-3217 j.winfree@2-g.com www.2g-energy.com
--

Vendor Statement

	<p>2G[®] is a global leader in manufacturing highly efficient CHP cogeneration power plants. Known for producing the world's most advanced and efficient cogeneration modules, and as per March 2016, having more than 5000 CHP's installed and operating, 2G[®] is specialized in modular energy conversion technologies. All cogeneration systems are designed and manufactured "connection ready", are fully factory tested and come as complete "Plug & Play" modules. This allows for an extremely fast and cost-effective installation, increases product reliability, and assures trouble-free operations. (Please watch our video located at www.2g-energy.com).</p> <p>*We offer fully containerized and inside building installations.</p> <p style="text-align: center;"><i>“Quality... is everything we do!”</i></p>
---	--



General Notes:

- Heat exchangers are sized to deliver 194°F to the building. Alternative heat exchangers can be selected to supply 120°F or 180°F as required. CHP is equipped with return riser to supply 194°F supply temperature, independent of return temperature.
- Our modules will be configured to produce NOx < 1.6 lbs/MW/hr. Lower emission requirements are achievable with our additional exhaust treatment options.
- NET kW shown above assumes the module has been installed and configured to self-support parasitic loads. All modules can be installed and configured to maximize exported kW to the grid or building; while parasitic loads are supported by utility.
- All 2G Modules up to 500kW can be configured as a “twin-pack” system – meaning the system can be supplied with 2 of the systems shown above and integrated into a single containerized package. This will then make the system eligible for N+1 configuration. Contact 2G Energy for additional information.

The above P&ID displays only the basic configuration components of our modules. We provide a wide range of optional components and configurations to maximize the value of CHP technology for each specific project.



2G Energy, Inc.

agenitor206NG-S1

220kW

Description

Type of prime mover	Number of prime mover units	Synchronous or Inverter	Type	Black-Start Capable	Qualification Status
RICE	1	Synchronous	CHP Steam	Yes	Conditionally qualified

Performance

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	Steam @ 10 psig			NOx lbs/MWh
					MBtu/h	Water Inlet Temperature °F	Net System Efficiency % (HHV)	
100%	59°F	2177	213	33.4	897	180	74.6	1.6
	95°F	2177	213	33.4	897	180	74.6	1.6
75%	59°F	1679	158	32.1	702	180	73.9	1.6
	95°F	1679	158	32.1	702	180	73.9	1.6
50%	59°F	1284	104	28.4	530	180	70.9	1.6
	95°F	1284	104	28.4	530	180	70.9	1.6

Notes: 1 – All performance data based on fuel energy content of 1067 Btu/CF HHV

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*	51"	146"	87"	Approx. 7,716
Core system based on minimum width*	51"	146"	87"	
Heat Rejection subsystem*	Included in module	Included in module	Included in module	Included in module
Largest part for delivery	51"	146"	87"	Approx. 7,716
Heaviest part for delivery	51"	146"	87"	Approx. 7,716

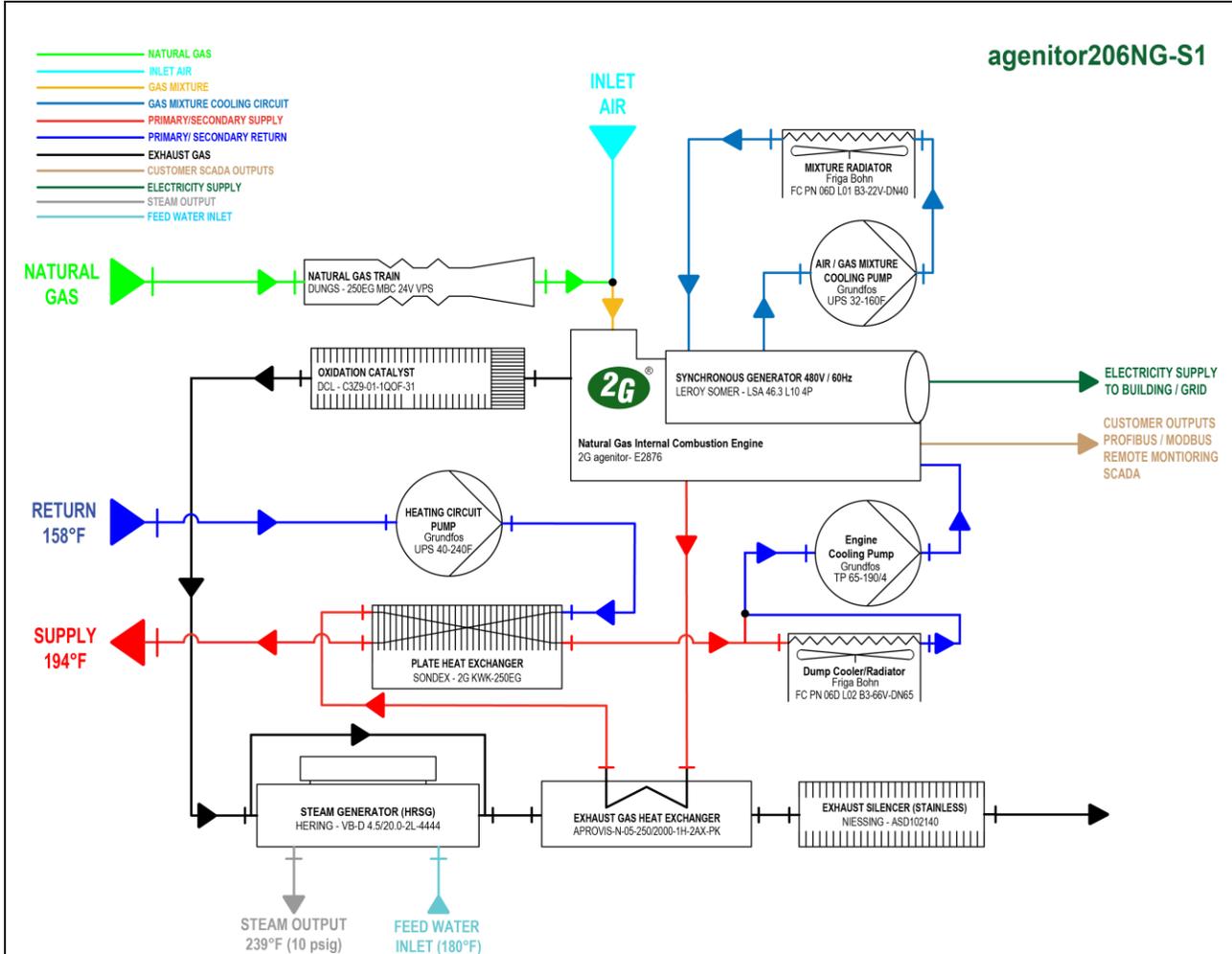
*Includes maintenance clearances.

Vendor Information

2G Energy, Inc. 205 Commercial Drive St. Augustine, FL 32092 (904) 579-3217 j.winfree@2-g.com www.2g-energy.com
--

Vendor Statement

	<p>2G[®] is a global leader in manufacturing highly efficient CHP cogeneration power plants. Known for producing the world's most advanced and efficient cogeneration modules, and as per March 2016, having more than 5000 CHP's installed and operating, 2G[®] is specialized in modular energy conversion technologies. All cogeneration systems are designed and manufactured "connection ready", are fully factory tested and come as complete "Plug & Play" modules. This allows for an extremely fast and cost-effective installation, increases product reliability, and assures trouble-free operations. (Please watch our video located at www.2g-energy.com).</p> <p>*We offer fully containerized and inside building installations.</p> <p style="text-align: center;"><i>“Quality... is everything we do!”</i></p>
--	--



General Notes:

- Heat exchangers are sized to deliver 194°F to the building. Alternative heat exchangers can be selected to supply 120°F or 180°F as required. CHP is equipped with return riser to supply 194°F supply temperature, independent of return temperature.
- Our modules will be configured to produce NOx < 1.6 lbs/MW/hr. Lower emission requirements are achievable with our additional exhaust treatment options.
- NET kW shown above assumes the module has been installed and configured to self-support parasitic loads. All modules can be installed and configured to maximize exported kW to the grid or building; while parasitic loads are supported by utility.
- All 2G Modules up to 500kW can be configured as a “twin-pack” system – meaning the system can be supplied with 2 of the systems shown above and integrated into a single containerized package. This will then make the system eligible for N+1 configuration. Contact 2G Energy for additional information.

The above P&ID displays only the basic configuration components of our modules. We provide a wide range of optional components and configurations to maximize the value of CHP technology for each specific project.

2G Energy, Inc.

agenitor206NG-S2

220kW

Description

Type of prime mover	Number of prime mover units	Synchronous or Inverter	Type	Black-Start Capable	Qualification Status
RICE	1	Synchronous	CHP Steam	Yes	Conditionally qualified

Performance

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	Steam @ 100 psig			NOx lbs/MWh
					MBtu/h	Water Inlet Temperature °F	Net System Efficiency % (HHV)	
100%	59°F	2177	213	33.4	897	180	74.6	1.6
	95°F	2177	213	33.4	897	180	74.6	1.6
75%	59°F	1679	158	32.1	702	180	73.9	1.6
	95°F	1679	158	32.1	702	180	73.9	1.6
50%	59°F	1284	104	28.4	530	180	70.9	1.6
	95°F	1284	104	28.4	530	180	70.9	1.6

Notes: 1 – All performance data based on fuel energy content of 1067 Btu/CF HHV

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*	51"	146"	87"	Approx. 7,716
Core system based on minimum width*	51"	146"	87"	
Heat Rejection subsystem*	Included in module	Included in module	Included in module	Included in module
Largest part for delivery	51"	146"	87"	Approx. 7,716
Heaviest part for delivery	51"	146"	87"	Approx. 7,716

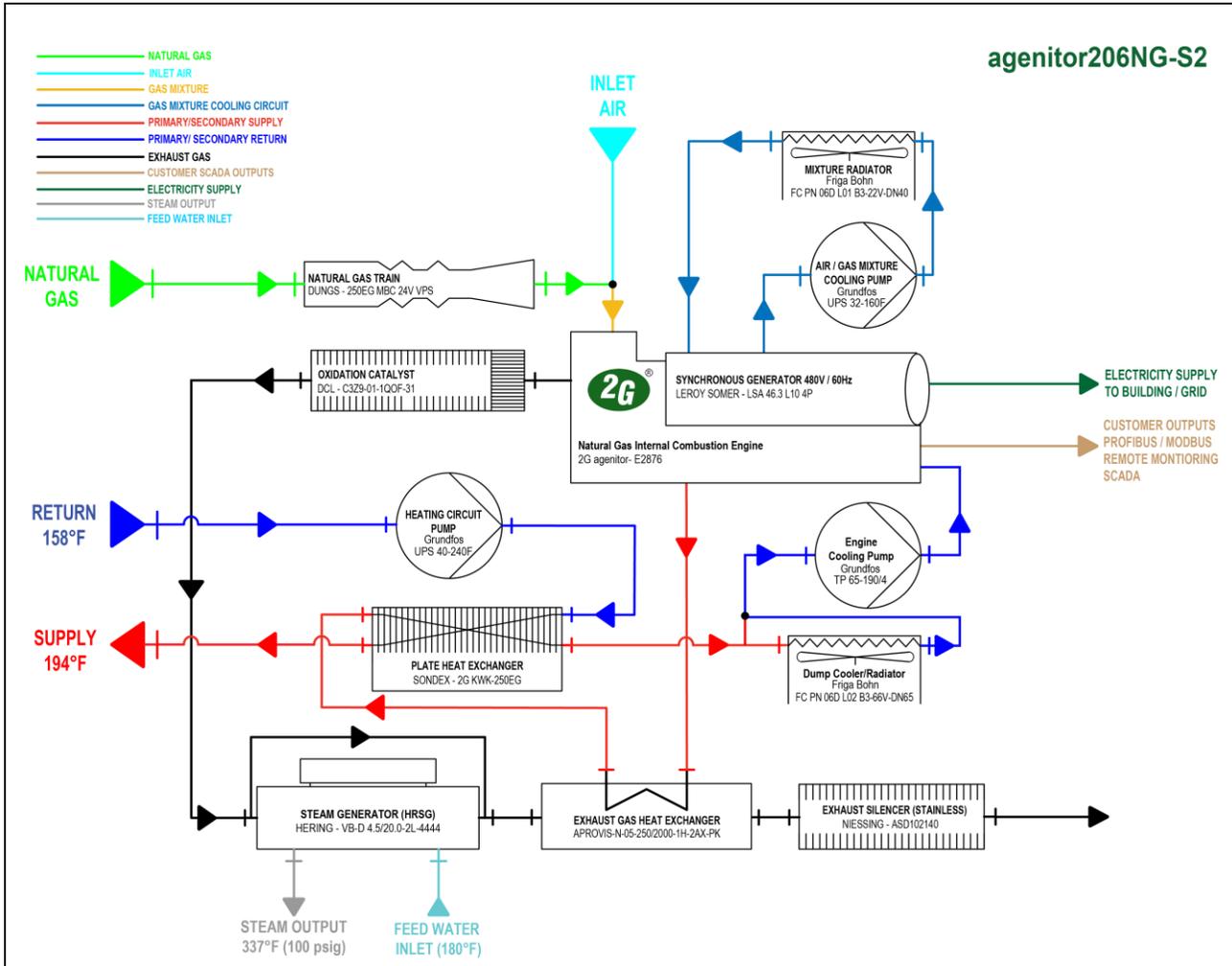
*Includes maintenance clearances.

Vendor Information

2G Energy, Inc. 205 Commercial Drive St. Augustine, FL 32092 (904) 579-3217 j.winfree@2-g.com www.2g-energy.com
--

Vendor Statement

	2G [®] is a global leader in manufacturing highly efficient CHP cogeneration power plants. Known for producing the world's most advanced and efficient cogeneration modules, and as per March 2016, having more than 5000 CHP's installed and operating, 2G [®] is specialized in modular energy conversion technologies. All cogeneration systems are designed and manufactured "connection ready", are fully factory tested and come as complete "Plug & Play" modules. This allows for an extremely fast and cost-effective installation, increases product reliability, and assures trouble-free operations. (Please watch our video located at www.2g-energy.com).
*We offer fully containerized and inside building installations.	
<p><i>“Quality... is everything we do!”</i></p>	



General Notes:

- Heat exchangers are sized to deliver 194°F to the building. Alternative heat exchangers can be selected to supply 120°F or 180°F as required. CHP is equipped with return riser to supply 194°F supply temperature, independent of return temperature.
- Our modules will be configured to produce NOx < 1.6 lbs/MW/hr. Lower emission requirements are achievable with our additional exhaust treatment options.
- NET kW shown above assumes the module has been installed and configured to self-support parasitic loads. All modules can be installed and configured to maximize exported kW to the grid or building; while parasitic loads are supported by utility.
- All 2G Modules up to 500kW can be configured as a "twin-pack" system – meaning the system can be supplied with 2 of the systems shown above and integrated into a single containerized package. This will then make the system eligible for N+1 configuration. Contact 2G Energy for additional information.

The above P&ID displays only the basic configuration components of our modules. We provide a wide range of optional components and configurations to maximize the value of CHP technology for each specific project.



2G Energy, Inc.

agenitor306NG

250kW

Description

Type of prime mover	Number of prime mover units	Synchronous or Inverter	Type	Black-Start Capable	Qualification Status
RICE	1	Synchronous	CHP-HW	Yes	Conditionally qualified

Performance

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	Hot Water to Building @ 194°F			NOx lbs/MWh
					MBtu/h	Return °F	Net System Efficiency % (HHV)	
100%	59°F	2450	242	33.7	1020	<172	75.3	1.6
	95°F	2450	242	33.7	1020	<172	75.3	1.6
75%	59°F	1895	180	32.4	790	<172	74.1	1.6
	95°F	1895	180	32.4	790	<172	74.1	1.6
50%	59°F	1404	117	28.4	602	<172	71.3	1.6
	95°F	1404	117	28.4	602	<172	71.3	1.6

Notes: 1 – All performance data based on fuel energy content of 1067 Btu/CF HHV

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*	51"	146"	87"	Approx. 8,157
Core system based on minimum width*	51"	146"	87"	
Heat Rejection subsystem*	Included in module	Included in module	Included in module	Included in module
Largest part for delivery	51"	146"	87"	Approx. 8,157
Heaviest part for delivery	51"	146"	87"	Approx. 8,157

*Includes maintenance clearances.

Vendor Information

2G Energy, Inc. 205 Commercial Drive St. Augustine, FL 32092 (904) 579-3217 j.winfree@2-g.com www.2g-energy.com
--

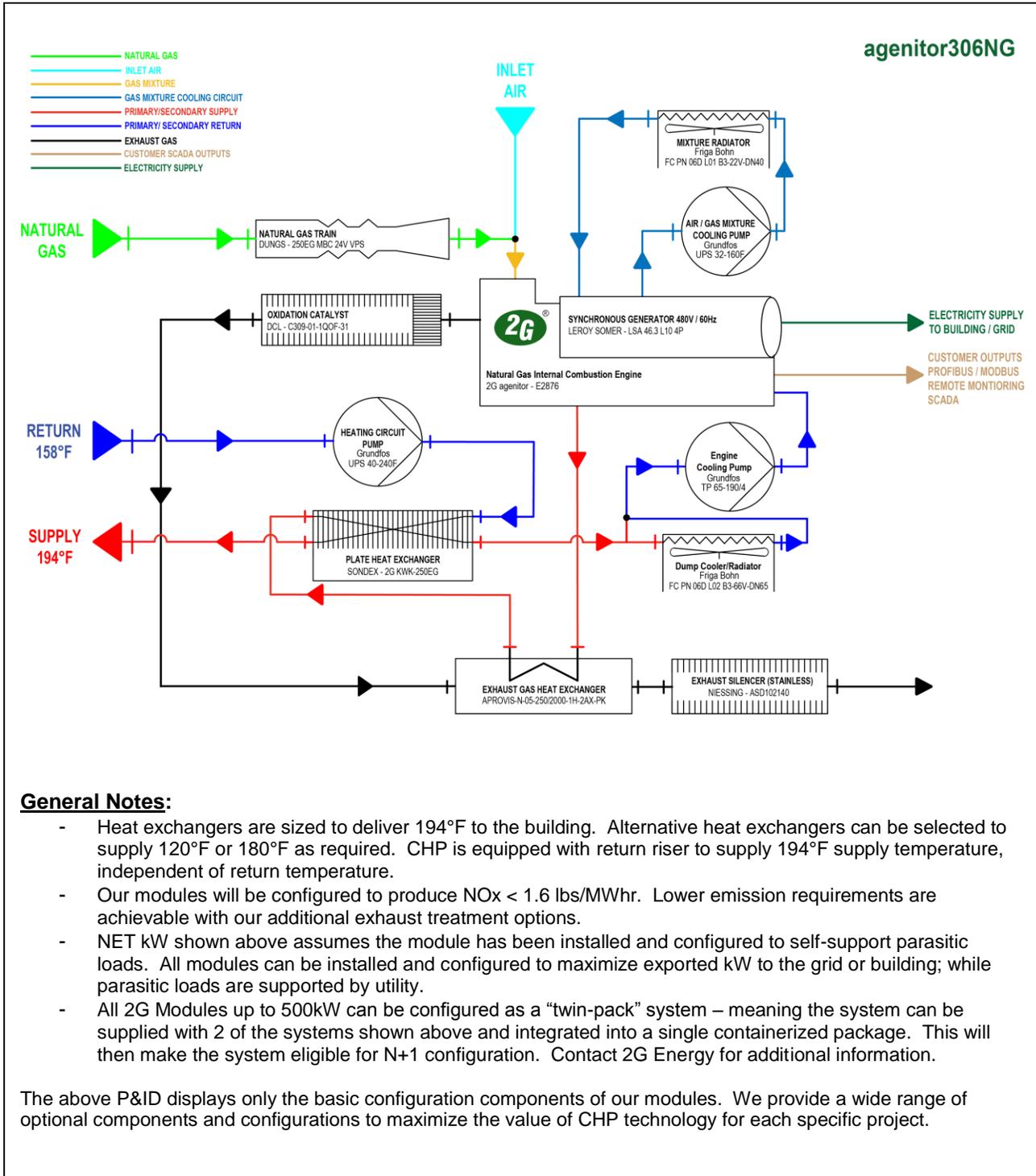
Vendor Statement

	2G [®] is a global leader in manufacturing highly efficient CHP cogeneration power plants. Known for producing the world's most advanced and efficient cogeneration modules, and as per March 2016, having more than 5000 CHP's installed and operating, 2G [®] is specialized in modular energy conversion technologies. All cogeneration systems are designed and manufactured "connection ready", are fully factory tested and come as complete "Plug & Play" modules. This allows for an extremely fast and cost-effective installation, increases product reliability, and assures trouble-free operations. (Please watch our video located at www.2g-energy.com).
	*We offer fully containerized and inside building installations.
	<p><i>“Quality... is everything we do!”</i></p>

2G Energy, Inc.

agenitor306NG

250kW



General Notes:

- Heat exchangers are sized to deliver 194°F to the building. Alternative heat exchangers can be selected to supply 120°F or 180°F as required. CHP is equipped with return riser to supply 194°F supply temperature, independent of return temperature.
- Our modules will be configured to produce NOx < 1.6 lbs/MW/hr. Lower emission requirements are achievable with our additional exhaust treatment options.
- NET kW shown above assumes the module has been installed and configured to self-support parasitic loads. All modules can be installed and configured to maximize exported kW to the grid or building; while parasitic loads are supported by utility.
- All 2G Modules up to 500kW can be configured as a “twin-pack” system – meaning the system can be supplied with 2 of the systems shown above and integrated into a single containerized package. This will then make the system eligible for N+1 configuration. Contact 2G Energy for additional information.

The above P&ID displays only the basic configuration components of our modules. We provide a wide range of optional components and configurations to maximize the value of CHP technology for each specific project.



2G Energy, Inc.

agenitor306NG-S1

250kW

Description

Type of prime mover	Number of prime mover units	Synchronous or Inverter	Type	Black-Start Capable	Qualification Status
RICE	1	Synchronous	CHP Steam	Yes	Conditionally qualified

Performance

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	Steam @ 10 psig			NOx lbs/MWh
					MBtu/h	Water Inlet Temperature °F	Net System Efficiency % (HHV)	
100%	59°F	2450	242	33.7	1020	180	75.3	1.6
	95°F	2450	242	33.7	1020	180	75.3	1.6
75%	59°F	1895	180	32.4	790	180	74.1	1.6
	95°F	1895	180	32.4	790	180	74.1	1.6
50%	59°F	1404	117	28.4	602	180	71.3	1.6
	95°F	1404	117	28.4	602	180	71.3	1.6

Notes: 1 – All performance data based on fuel energy content of 1067 Btu/CF HHV

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*	51"	146"	87"	Approx. 8,157
Core system based on minimum width*	51"	146"	87"	
Heat Rejection subsystem*	Included in module	Included in module	Included in module	Included in module
Largest part for delivery	51"	146"	87"	Approx. 8,157
Heaviest part for delivery	51"	146"	87"	Approx. 8,157

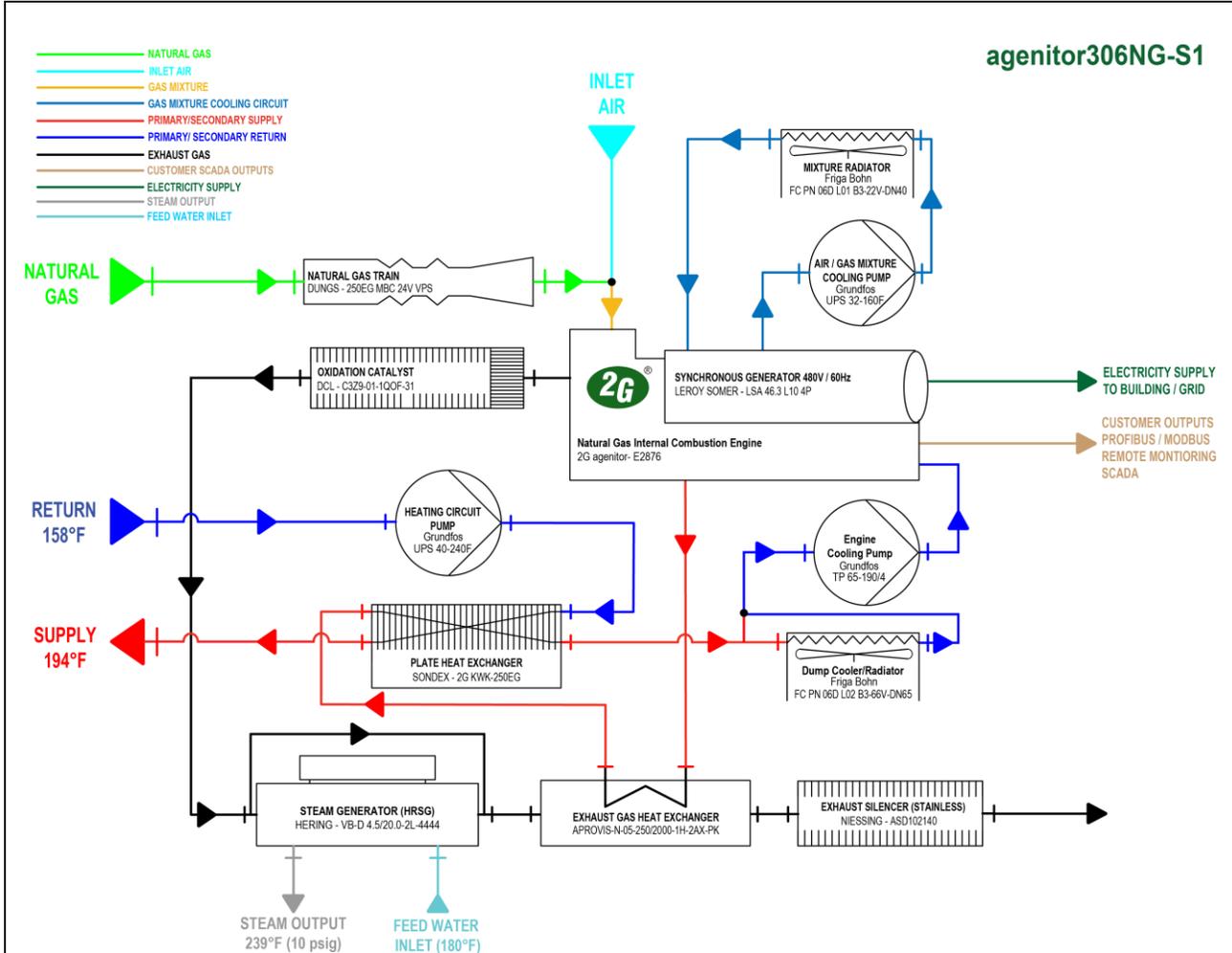
*Includes maintenance clearances.

Vendor Information

2G Energy, Inc. 205 Commercial Drive St. Augustine, FL 32092 (904) 579-3217 i.winfree@2-g.com www.2g-energy.com
--

Vendor Statement

	<p>2G[®] is a global leader in manufacturing highly efficient CHP cogeneration power plants. Known for producing the world's most advanced and efficient cogeneration modules, and as per March 2016, having more than 5000 CHP's installed and operating, 2G[®] is specialized in modular energy conversion technologies. All cogeneration systems are designed and manufactured "connection ready", are fully factory tested and come as complete "Plug & Play" modules. This allows for an extremely fast and cost-effective installation, increases product reliability, and assures trouble-free operations. (Please watch our video located at www.2g-energy.com).</p> <p>*We offer fully containerized and inside building installations.</p> <p style="text-align: center;"><i>“Quality... is everything we do!”</i></p>
--	--



General Notes:

- Heat exchangers are sized to deliver 194°F to the building. Alternative heat exchangers can be selected to supply 120°F or 180°F as required. CHP is equipped with return riser to supply 194°F supply temperature, independent of return temperature.
- Our modules will be configured to produce NOx < 1.6 lbs/MW/hr. Lower emission requirements are achievable with our additional exhaust treatment options.
- NET kW shown above assumes the module has been installed and configured to self-support parasitic loads. All modules can be installed and configured to maximize exported kW to the grid or building; while parasitic loads are supported by utility.
- All 2G Modules up to 500kW can be configured as a "twin-pack" system – meaning the system can be supplied with 2 of the systems shown above and integrated into a single containerized package. This will then make the system eligible for N+1 configuration. Contact 2G Energy for additional information.

The above P&ID displays only the basic configuration components of our modules. We provide a wide range of optional components and configurations to maximize the value of CHP technology for each specific project.



2G Energy, Inc.

agenitor306NG-S2

250kW

Description

Type of prime mover	Number of prime mover units	Synchronous or Inverter	Type	Black-Start Capable	Qualification Status
RICE	1	Synchronous	CHP Steam	Yes	Conditionally qualified

Performance

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	Steam @ 100 psig			NOx lbs/MWh
					MBtu/h	Water Inlet Temperature °F	Net System Efficiency % (HHV)	
100%	59°F	2450	242	33.7	1020	180	75.3	1.6
	95°F	2450	242	33.7	1020	180	75.3	1.6
75%	59°F	1895	180	32.4	790	180	74.1	1.6
	95°F	1895	180	32.4	790	180	74.1	1.6
50%	59°F	1404	117	28.4	602	180	71.3	1.6
	95°F	1404	117	28.4	602	180	71.3	1.6

Notes: 1 – All performance data based on fuel energy content of 1067 Btu/CF HHV

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*	51"	146"	87"	Approx. 8,157
Core system based on minimum width*	51"	146"	87"	
Heat Rejection subsystem*	Included in module	Included in module	Included in module	Included in module
Largest part for delivery	51"	146"	87"	Approx. 8,157
Heaviest part for delivery	51"	146"	87"	Approx. 8,157

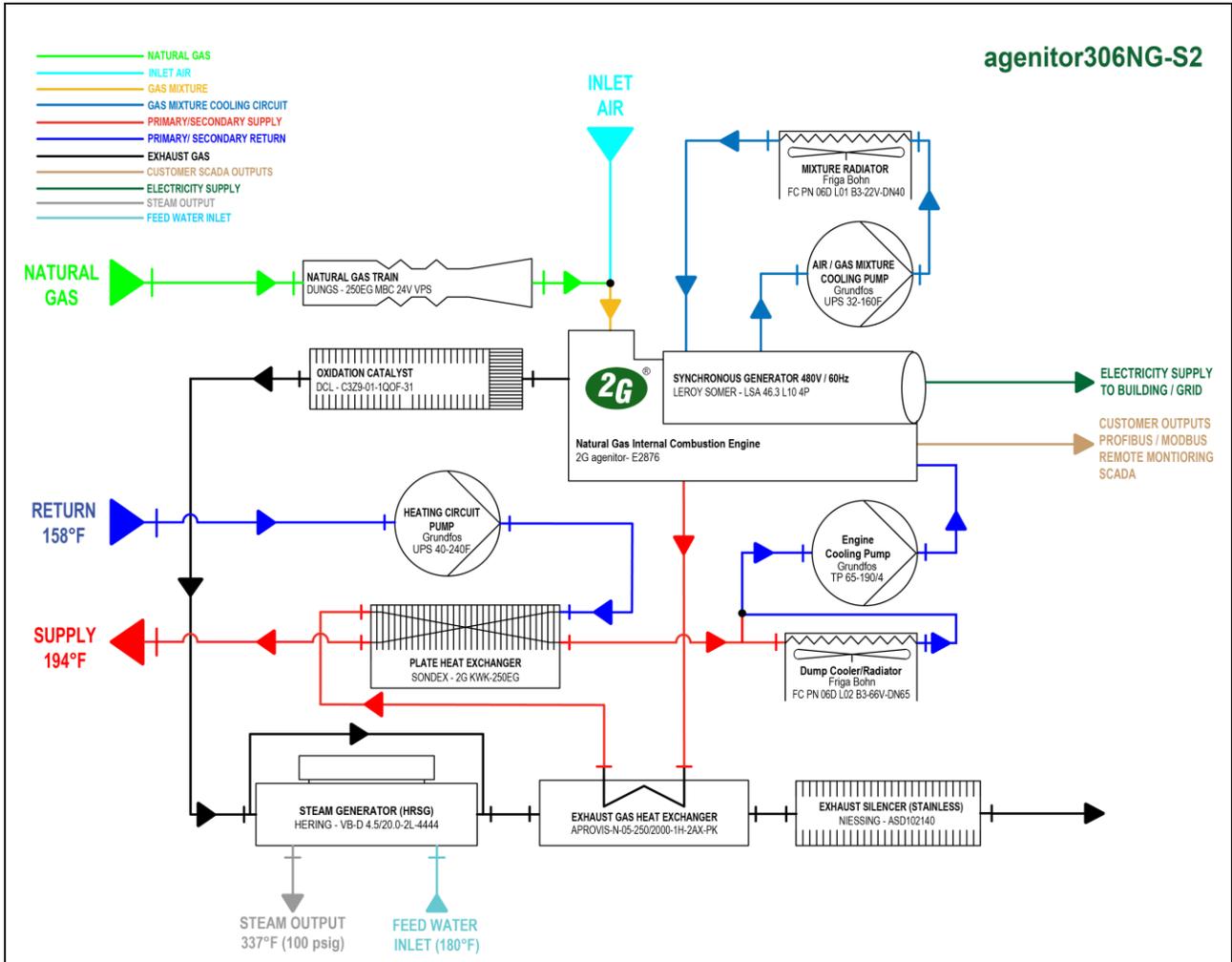
*Includes maintenance clearances.

Vendor Information

2G Energy, Inc. 205 Commercial Drive St. Augustine, FL 32092 (904) 579-3217 j.winfree@2-g.com www.2g-energy.com
--

Vendor Statement

	<p>2G[®] is a global leader in manufacturing highly efficient CHP cogeneration power plants. Known for producing the world's most advanced and efficient cogeneration modules, and as per March 2016, having more than 5000 CHP's installed and operating, 2G[®] is specialized in modular energy conversion technologies. All cogeneration systems are designed and manufactured "connection ready", are fully factory tested and come as complete "Plug & Play" modules. This allows for an extremely fast and cost-effective installation, increases product reliability, and assures trouble-free operations. (Please watch our video located at www.2g-energy.com).</p> <p>*We offer fully containerized and inside building installations.</p> <p style="text-align: center;"><i>“Quality... is everything we do!”</i></p>
--	--



General Notes:

- Heat exchangers are sized to deliver 194°F to the building. Alternative heat exchangers can be selected to supply 120°F or 180°F as required. CHP is equipped with return riser to supply 194°F supply temperature, independent of return temperature.
- Our modules will be configured to produce NOx < 1.6 lbs/MW/hr. Lower emission requirements are achievable with our additional exhaust treatment options.
- NET kW shown above assumes the module has been installed and configured to self-support parasitic loads. All modules can be installed and configured to maximize exported kW to the grid or building; while parasitic loads are supported by utility.
- All 2G Modules up to 500kW can be configured as a “twin-pack” system – meaning the system can be supplied with 2 of the systems shown above and integrated into a single containerized package. This will then make the system eligible for N+1 configuration. Contact 2G Energy for additional information.

The above P&ID displays only the basic configuration components of our modules. We provide a wide range of optional components and configurations to maximize the value of CHP technology for each specific project.



2G Energy, Inc.

patruus265NG

265kW

Description

Type of prime mover	Number of prime mover units	Synchronous or Inverter	Type	Black-Start Capable	Qualification Status
RICE	1	Synchronous	CHP-HW	Yes	Conditionally qualified

Performance

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	Hot Water to Building @ 194°F			NOx lbs/MWh
					MBtu/h	Return °F	Net System Efficiency % (HHV)	
100%	59°F	2824	260	31.4	1412	<172	81.4	1.6
	95°F	2824	260	31.4	1412	<172	81.4	1.6
75%	59°F	2199	194	30.1	1102	<172	80.2	1.6
	95°F	2199	194	30.1	1102	<172	80.2	1.6
50%	59°F	1685	127	25.7	870	<172	77.3	1.6
	95°F	1685	127	25.7	870	<172	77.3	1.6

Notes: 1 – All performance data based on fuel energy content of 1067 Btu/CF HHV

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*	4'11"	13'0"	7'3"	10,692
Core system based on minimum width*	4'11"	13'0"	7'3"	
Heat Rejection subsystem*	Included in module	Included in module	Included in module	Included in module
Largest part for delivery	4'11"	13'0"	7'3"	10,692
Heaviest part for delivery	4'11"	13'0"	7'3"	10,692

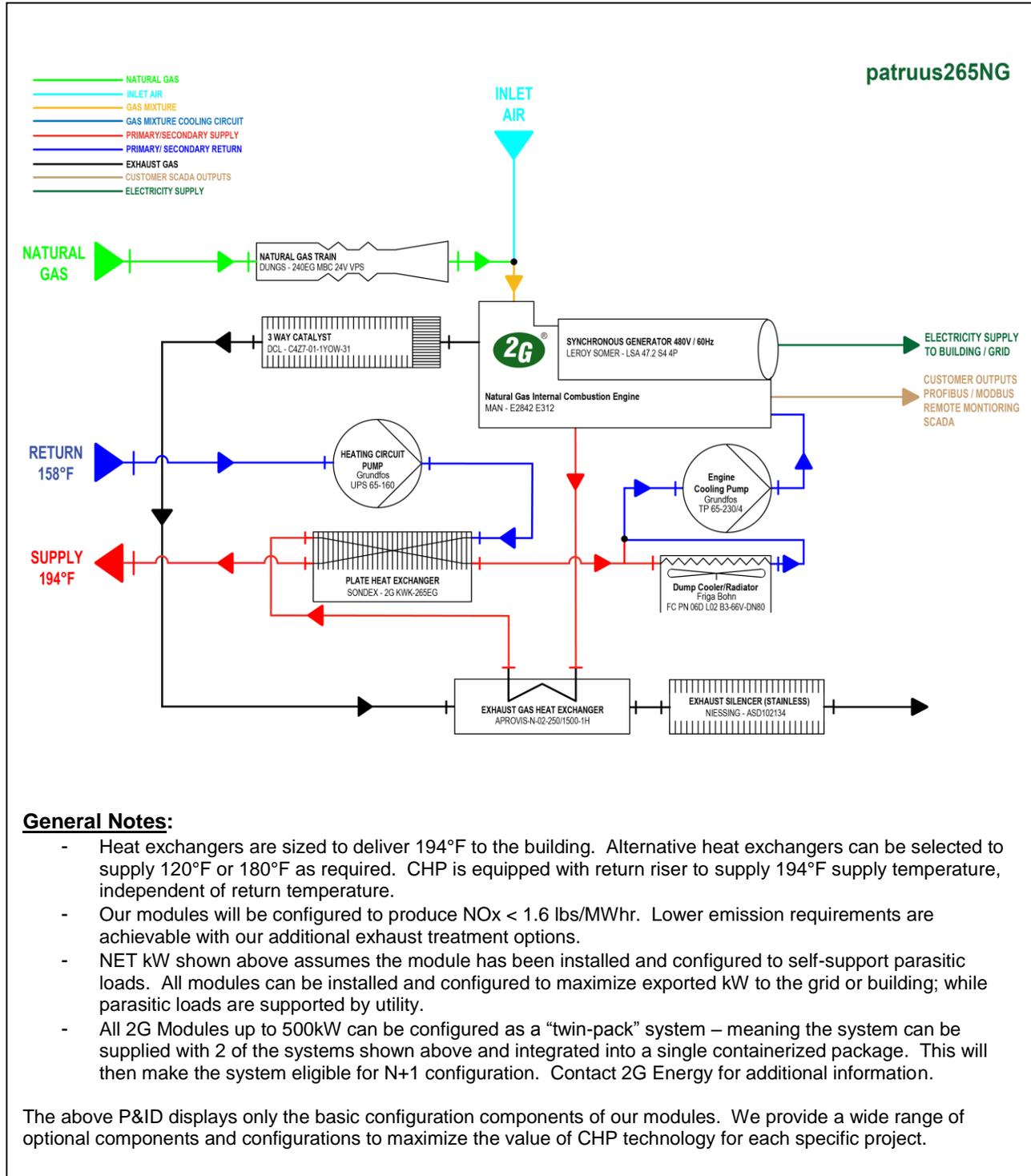
*Includes maintenance clearances.

Vendor Information

2G Energy, Inc. 205 Commercial Drive St. Augustine, FL 32092 (904) 579-3217 j.winfree@2-g.com www.2g-energy.com
--

Vendor Statement

	2G [®] is a global leader in manufacturing highly efficient CHP cogeneration power plants. Known for producing the world's most advanced and efficient cogeneration modules, and as per March 2016, having more than 5000 CHP's installed and operating, 2G [®] is specialized in modular energy conversion technologies. All cogeneration systems are designed and manufactured "connection ready", are fully factory tested and come as complete "Plug & Play" modules. This allows for an extremely fast and cost-effective installation, increases product reliability, and assures trouble-free operations. (Please watch our video located at www.2g-energy.com).
	*We offer fully containerized and inside building installations.
	<p><i>“Quality... is everything we do!”</i></p>





2G Energy, Inc.

patruus265NG-S1

265kW

Description

Type of prime mover	Number of prime mover units	Synchronous or Inverter	Type	Black-Start Capable	Qualification Status
RICE	1	Synchronous	CHP Steam	Yes	Conditionally qualified

Performance

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	Steam @ 10 psig			NOx lbs/MWh
					MBtu/h	Water Inlet Temperature °F	Net System Efficiency % (HHV)	
100%	59°F	2824	260	31.4	1412	180	81.4	1.6
	95°F	2824	260	31.4	1412	180	81.4	1.6
75%	59°F	2199	194	30.1	1102	180	80.2	1.6
	95°F	2199	194	30.1	1102	180	80.2	1.6
50%	59°F	1685	127	25.7	870	180	77.3	1.6
	95°F	1685	127	25.7	870	180	77.3	1.6

Notes: 1 – All performance data based on fuel energy content of 1067 Btu/CF HHV

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*	4'11"	13'0"	7'3"	10,692
Core system based on minimum width*	4'11"	13'0"	7'3"	
Heat Rejection subsystem*	Included in module	Included in module	Included in module	Included in module
Largest part for delivery	4'11"	13'0"	7'3"	10,692
Heaviest part for delivery	4'11"	13'0"	7'3"	10,692

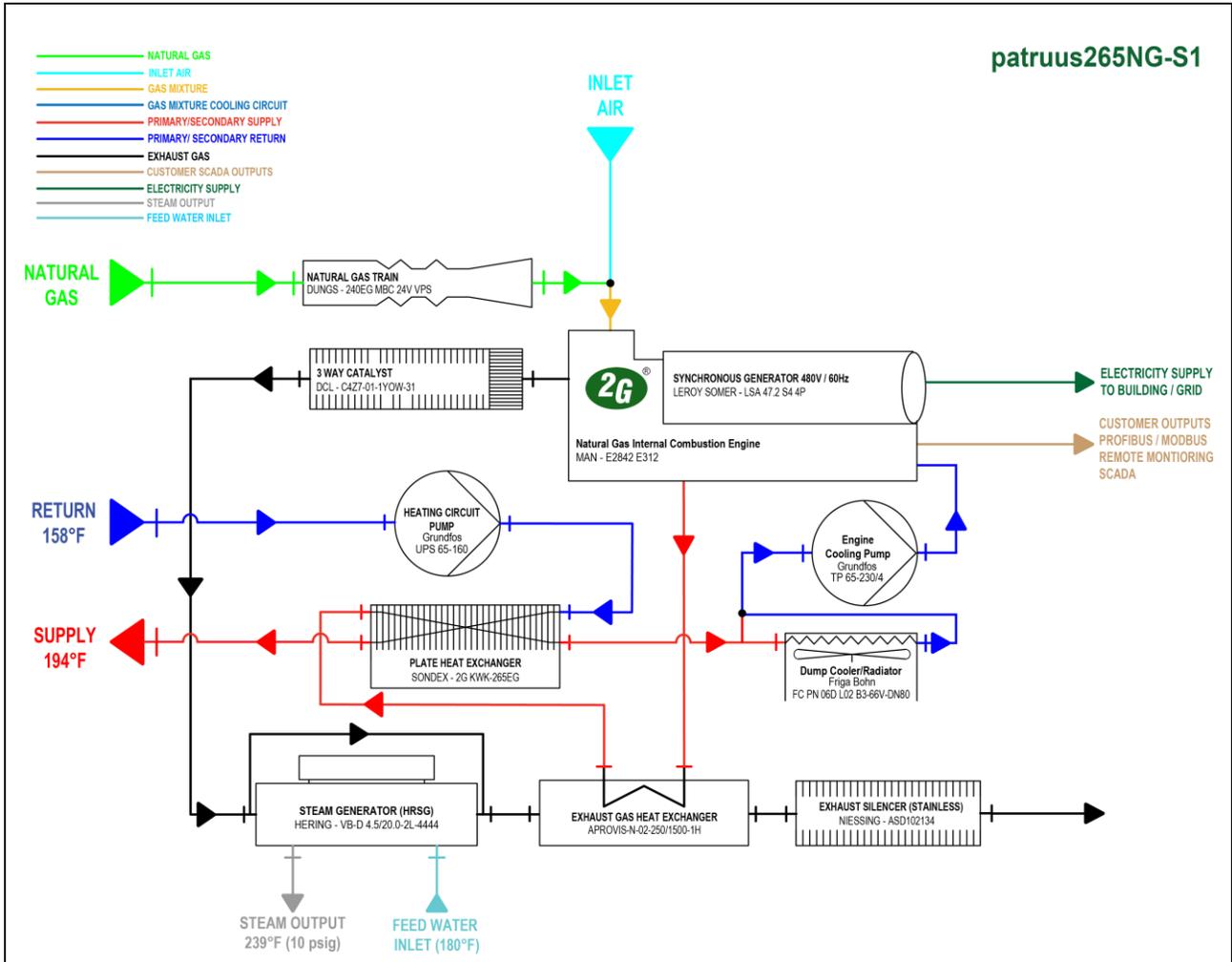
*Includes maintenance clearances.

Vendor Information

2G Energy, Inc. 205 Commercial Drive St. Augustine, FL 32092 (904) 579-3217 j.winfree@2-g.com www.2g-energy.com
--

Vendor Statement

	<p>2G[®] is a global leader in manufacturing highly efficient CHP cogeneration power plants. Known for producing the world's most advanced and efficient cogeneration modules, and as per March 2016, having more than 5000 CHP's installed and operating, 2G[®] is specialized in modular energy conversion technologies. All cogeneration systems are designed and manufactured "connection ready", are fully factory tested and come as complete "Plug & Play" modules. This allows for an extremely fast and cost-effective installation, increases product reliability, and assures trouble-free operations. (Please watch our video located at www.2g-energy.com).</p> <p>*We offer fully containerized and inside building installations.</p> <p style="text-align: center;"><i>“Quality... is everything we do!”</i></p>
--	--



General Notes:

- Heat exchangers are sized to deliver 194°F to the building. Alternative heat exchangers can be selected to supply 120°F or 180°F as required. CHP is equipped with return riser to supply 194°F supply temperature, independent of return temperature.
- Our modules will be configured to produce NOx < 1.6 lbs/MW/hr. Lower emission requirements are achievable with our additional exhaust treatment options.
- NET kW shown above assumes the module has been installed and configured to self-support parasitic loads. All modules can be installed and configured to maximize exported kW to the grid or building; while parasitic loads are supported by utility.
- All 2G Modules up to 500kW can be configured as a “twin-pack” system – meaning the system can be supplied with 2 of the systems shown above and integrated into a single containerized package. This will then make the system eligible for N+1 configuration. Contact 2G Energy for additional information.

The above P&ID displays only the basic configuration components of our modules. We provide a wide range of optional components and configurations to maximize the value of CHP technology for each specific project.



2G Energy, Inc.

patruus265NG-S2

265kW

Description

Type of prime mover	Number of prime mover units	Synchronous or Inverter	Type	Black-Start Capable	Qualification Status
RICE	1	Synchronous	CHP Steam	Yes	Conditionally qualified

Performance

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	Steam @ 100 psig			NOx lbs/MWh
					MBtu/h	Water Inlet Temperature °F	Net System Efficiency % (HHV)	
100%	59°F	2824	260	31.4	1412	180	81.4	1.6
	95°F	2824	260	31.4	1412	180	81.4	1.6
75%	59°F	2199	194	30.1	1102	180	80.2	1.6
	95°F	2199	194	30.1	1102	180	80.2	1.6
50%	59°F	1685	127	25.7	870	180	77.3	1.6
	95°F	1685	127	25.7	870	180	77.3	1.6

Notes: 1 – All performance data based on fuel energy content of 1067 Btu/CF HHV

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*	4'11"	13'0"	7'3"	10,692
Core system based on minimum width*	4'11"	13'0"	7'3"	
Heat Rejection subsystem*	Included in module	Included in module	Included in module	Included in module
Largest part for delivery	4'11"	13'0"	7'3"	10,692
Heaviest part for delivery	4'11"	13'0"	7'3"	10,692

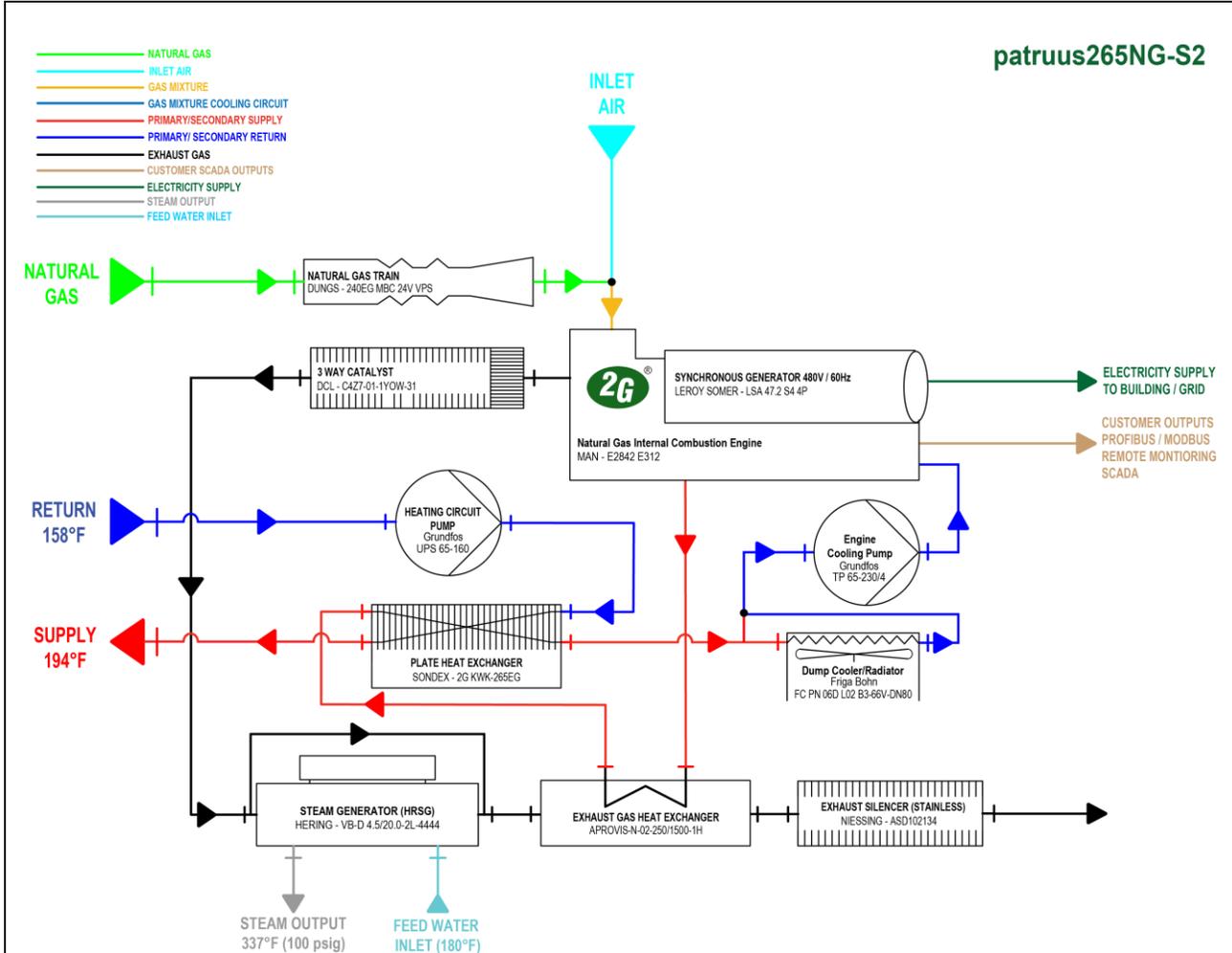
*Includes maintenance clearances.

Vendor Information

2G Energy, Inc. 205 Commercial Drive St. Augustine, FL 32092 (904) 579-3217 j.winfree@2-g.com www.2g-energy.com
--

Vendor Statement

	<p>2G[®] is a global leader in manufacturing highly efficient CHP cogeneration power plants. Known for producing the world's most advanced and efficient cogeneration modules, and as per March 2016, having more than 5000 CHP's installed and operating, 2G[®] is specialized in modular energy conversion technologies. All cogeneration systems are designed and manufactured "connection ready", are fully factory tested and come as complete "Plug & Play" modules. This allows for an extremely fast and cost-effective installation, increases product reliability, and assures trouble-free operations. (Please watch our video located at www.2g-energy.com).</p> <p>*We offer fully containerized and inside building installations.</p> <p style="text-align: center;"><i>“Quality... is everything we do!”</i></p>
--	--



General Notes:

- Heat exchangers are sized to deliver 194°F to the building. Alternative heat exchangers can be selected to supply 120°F or 180°F as required. CHP is equipped with return riser to supply 194°F supply temperature, independent of return temperature.
- Our modules will be configured to produce NOx < 1.6 lbs/MW/hr. Lower emission requirements are achievable with our additional exhaust treatment options.
- NET kW shown above assumes the module has been installed and configured to self-support parasitic loads. All modules can be installed and configured to maximize exported kW to the grid or building; while parasitic loads are supported by utility.
- All 2G Modules up to 500kW can be configured as a "twin-pack" system – meaning the system can be supplied with 2 of the systems shown above and integrated into a single containerized package. This will then make the system eligible for N+1 configuration. Contact 2G Energy for additional information.

The above P&ID displays only the basic configuration components of our modules. We provide a wide range of optional components and configurations to maximize the value of CHP technology for each specific project.

2G Energy, Inc.

patruus400NG

400kW

Description

Type of prime mover	Number of prime mover units	Synchronous or Inverter	Type	Black-Start Capable	Qualification Status
RICE	1	Synchronous	CHP-HW	Yes	Conditionally qualified

Performance

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	Hot Water to Building @ 194°F			NOx lbs/MWh
					MBtu/h	Return °F	Net System Efficiency % (HHV)	
100%	59°F	4067	388	32.5	1860	<172	78.3	1.6
	95°F	4067	388	32.5	1860	<172	78.3	1.6
75%	59°F	3122	288	31.5	1495	<172	79.4	1.6
	95°F	3122	288	31.5	1495	<172	79.4	1.6
50%	59°F	2249	188	28.5	1133	<172	78.9	1.6
	95°F	2249	188	28.5	1133	<172	78.9	1.6

Notes: 1 – All performance data based on fuel energy content of 1067 Btu/CF HHV

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*	4'11"	13'3"	7'7"	13,007
Core system based on minimum width*	4'11"	13'3"	7'7"	
Heat Rejection subsystem*	Included in Module	Included in Module	Included in Module	Included in Module
Largest part for delivery	4'11"	13'3"	7'7"	13,007
Heaviest part for delivery	4'11"	13'3"	7'7"	13,007

*Includes maintenance clearances.

Vendor Information

2G Energy, Inc. 205 Commercial Drive St. Augustine, FL 32092 (904) 579-3217 j.winfree@2-g.com www.2g-energy.com
--

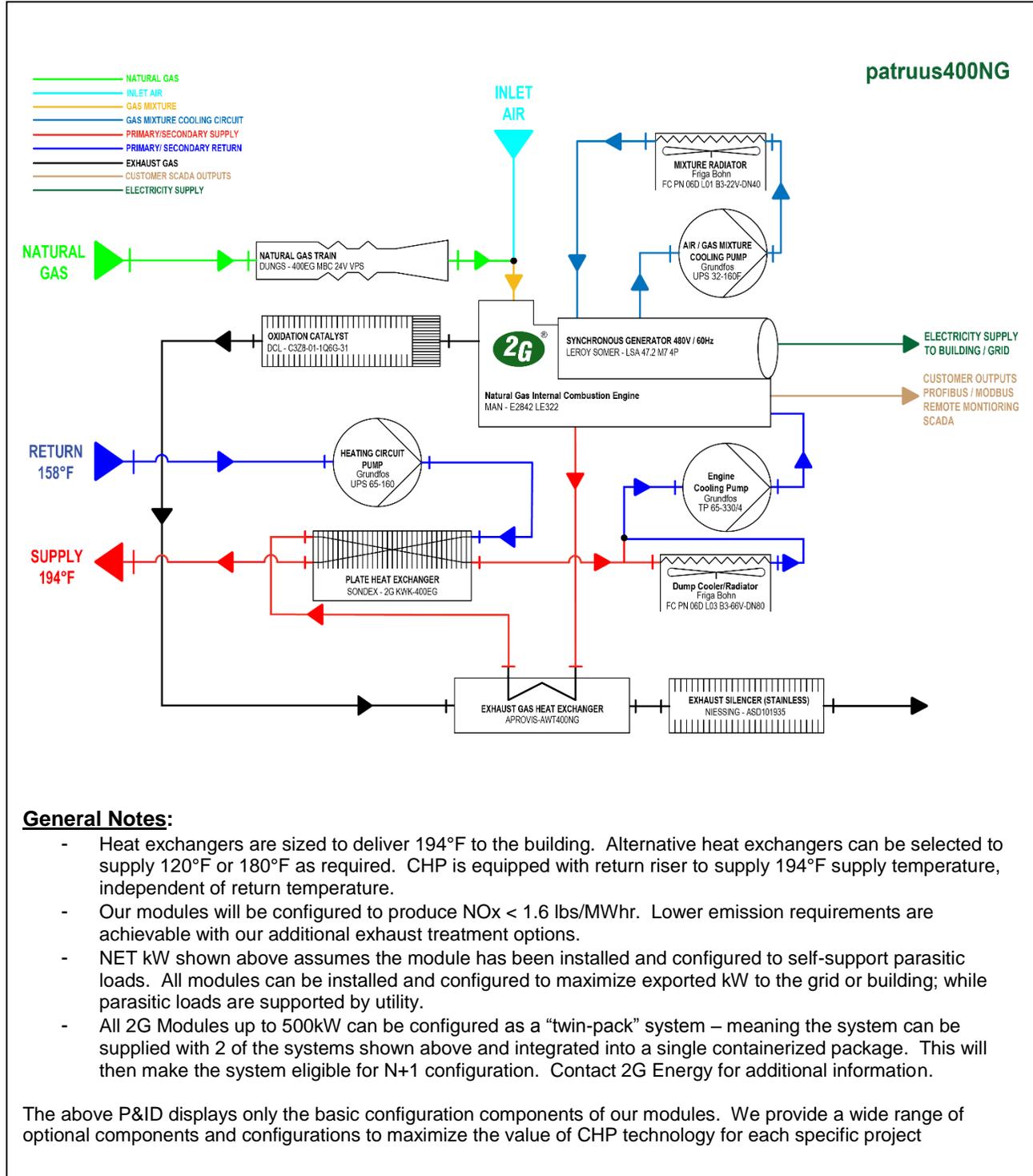
Vendor Statement

	2G [®] is a global leader in manufacturing highly efficient CHP cogeneration power plants. Known for producing the world's most advanced and efficient cogeneration modules, and as per March 2016, having more than 5000 CHP's installed and operating, 2G [®] is specialized in modular energy conversion technologies. All cogeneration systems are designed and manufactured "connection ready", are fully factory tested and come as complete "Plug & Play" modules. This allows for an extremely fast and cost-effective installation, increases product reliability, and assures trouble-free operations. (Please watch our video located at www.2g-energy.com).
*We offer fully containerized and inside building installations.	
<p><i>“Quality... is everything we do!”</i></p>	

2G Energy, Inc.

patruus400NG

400kW





2G Energy, Inc.

patruus400NG-S1

400kW

Description

Type of prime mover	Number of prime mover units	Synchronous or Inverter	Type	Black-Start Capable	Qualification Status
RICE	1	Synchronous	CHP Steam	Yes	Conditionally qualified

Performance

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	Steam @ 10 psig			NOx lbs/MWh
					MBtu/h	Water Inlet Temperature °F	Net System Efficiency % (HHV)	
100%	59°F	4067	388	32.5	1860	180	78.3	1.6
	95°F	4067	388	32.5	1860	180	78.3	1.6
75%	59°F	3122	288	31.5	1495	180	79.4	1.6
	95°F	3122	288	31.5	1495	180	79.4	1.6
50%	59°F	2249	188	28.5	1133	180	78.9	1.6
	95°F	2249	188	28.5	1133	180	78.9	1.6

Notes: 1 – All performance data based on fuel energy content of 1067 Btu/CF HHV

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*	4'11"	13'3"	7'7"	13,007
Core system based on minimum width*	4'11"	13'3"	7'7"	
Heat Rejection subsystem*	Included in Module	Included in Module	Included in Module	Included in Module
Largest part for delivery	4'11"	13'3"	7'7"	13,007
Heaviest part for delivery	4'11"	13'3"	7'7"	13,007

*Includes maintenance clearances.

Vendor Information

2G Energy, Inc. 205 Commercial Drive St. Augustine, FL 32092 (904) 579-3217 j.winfree@2-g.com www.2g-energy.com
--

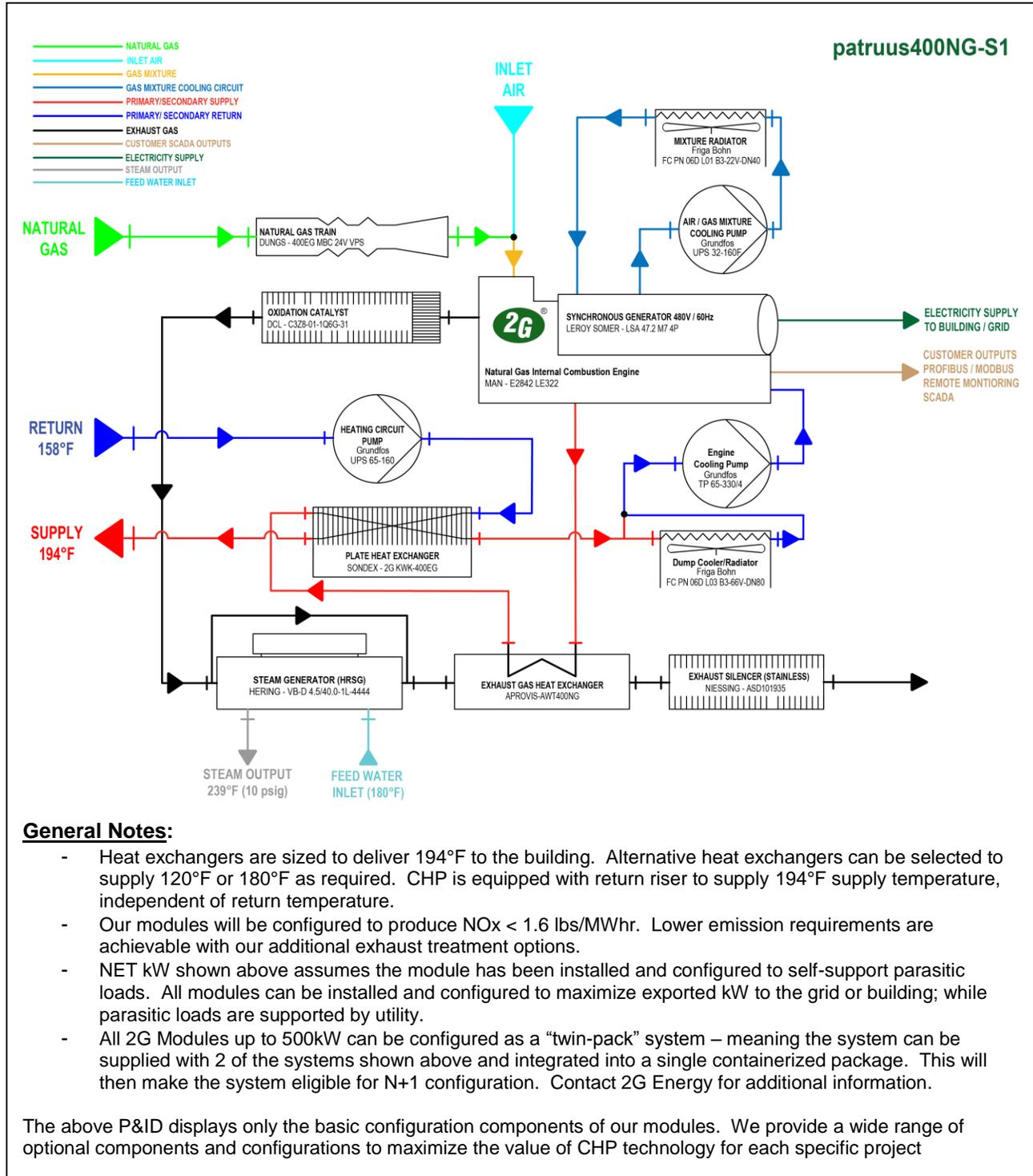
Vendor Statement

	<p>2G[®] is a global leader in manufacturing highly efficient CHP cogeneration power plants. Known for producing the world's most advanced and efficient cogeneration modules, and as per March 2016, having more than 5000 CHP's installed and operating, 2G[®] is specialized in modular energy conversion technologies. All cogeneration systems are designed and manufactured "connection ready", are fully factory tested and come as complete "Plug & Play" modules. This allows for an extremely fast and cost-effective installation, increases product reliability, and assures trouble-free operations. (Please watch our video located at www.2g-energy.com).</p> <p>*We offer fully containerized and inside building installations.</p> <p style="text-align: center;"><i>“Quality... is everything we do!”</i></p>
--	--

2G Energy, Inc.

patruus400NG-S1

400kW



2G Energy, Inc.
patruus400NG-S2
400kW
Description

Type of prime mover	Number of prime mover units	Synchronous or Inverter	Type	Black-Start Capable	Qualification Status
RICE	1	Synchronous	CHP Steam	Yes	Conditionally qualified

Performance

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	Steam @ 100 psig			NOx lbs/MWh
					MBtu/h	Water Inlet Temperature °F	Net System Efficiency % (HHV)	
100%	59°F	4067	388	32.5	1860	180	78.3	1.6
	95°F	4067	388	32.5	1860	180	78.3	1.6
75%	59°F	3122	288	31.5	1495	180	79.4	1.6
	95°F	3122	288	31.5	1495	180	79.4	1.6
50%	59°F	2249	188	28.5	1133	180	78.9	1.6
	95°F	2249	188	28.5	1133	180	78.9	1.6

Notes: 1 – All performance data based on fuel energy content of 1067 Btu/CF HHV

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*	4'11"	13'3"	7'7"	13,007
Core system based on minimum width*	4'11"	13'3"	7'7"	
Heat Rejection subsystem*	Included in Module	Included in Module	Included in Module	Included in Module
Largest part for delivery	4'11"	13'3"	7'7"	13,007
Heaviest part for delivery	4'11"	13'3"	7'7"	13,007

*Includes maintenance clearances.

Vendor Information

2G Energy, Inc. 205 Commercial Drive St. Augustine, FL 32092 (904) 579-3217 j.winfree@2-g.com www.2g-energy.com
--

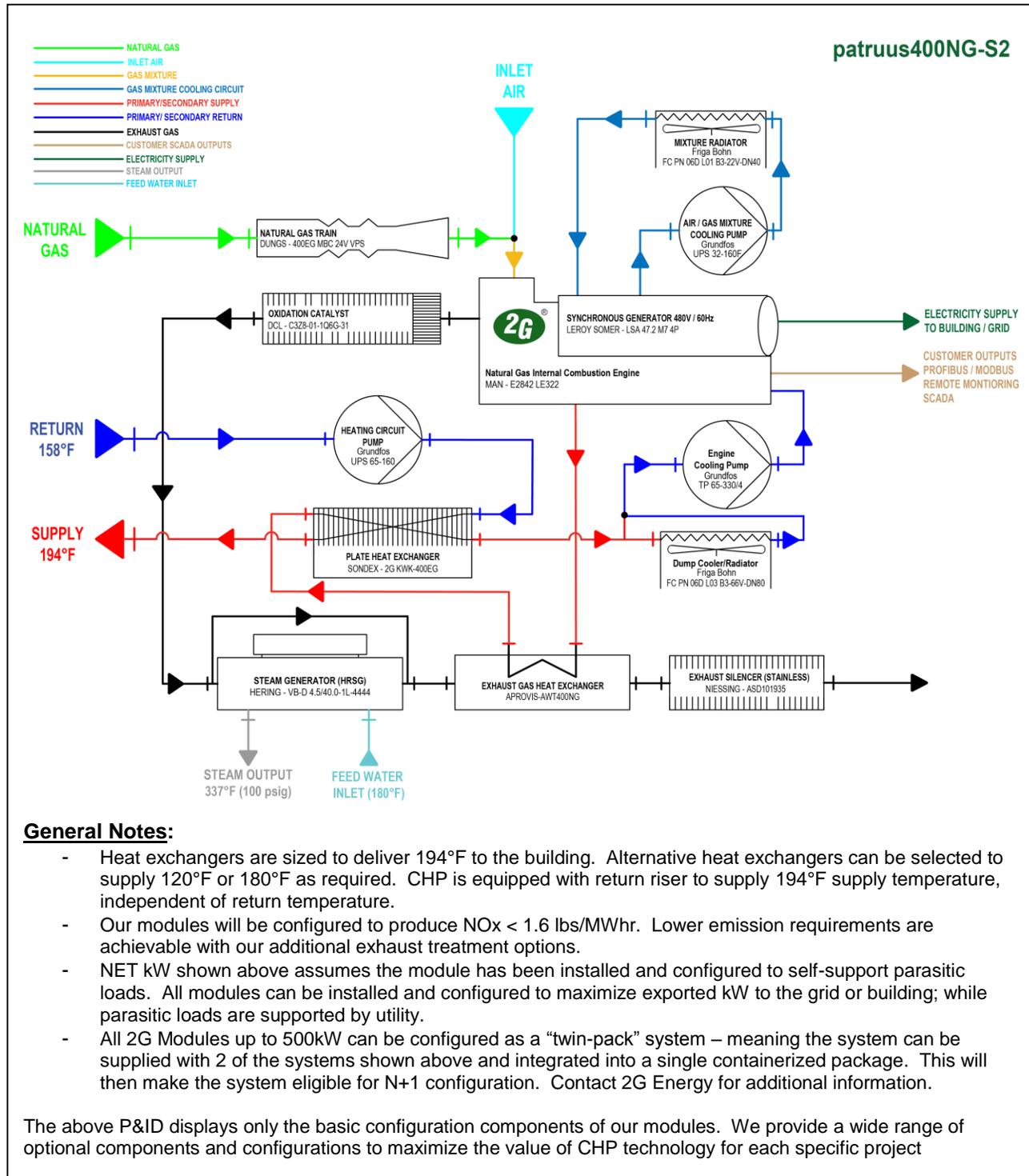
Vendor Statement

 <p>2G[®] is a global leader in manufacturing highly efficient CHP cogeneration power plants. Known for producing the world's most advanced and efficient cogeneration modules, and as per March 2016, having more than 5000 CHP's installed and operating, 2G[®] is specialized in modular energy conversion technologies. All cogeneration systems are designed and manufactured "connection ready", are fully factory tested and come as complete "Plug & Play" modules. This allows for an extremely fast and cost-effective installation, increases product reliability, and assures trouble-free operations. (Please watch our video located at www.2g-energy.com).</p> <p>*We offer fully containerized and inside building installations.</p> <p><i>"Quality... is everything we do!"</i></p>
--

2G Energy, Inc.

patruus400NG-S2

400kW





2G Energy, Inc.

agenitor312NG

450kW

Description

Type of prime mover	Number of prime mover units	Synchronous or Inverter	Type	Black-Start Capable	Qualification Status
RICE	1	Synchronous	CHP-HW	Yes	Conditionally qualified

Performance

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	Hot Water to Building @ 194°F			NOx lbs/MWh
					MBtu/h	Return °F	Net System Efficiency % (HHV)	
100%	59°F	4287	438	34.9	1750	<172	75.7	1.6
	95°F	4287	438	34.9	1750	<172	75.7	1.6
75%	59°F	3312	326	33.6	1371	<172	75.0	1.6
	95°F	3312	326	33.6	1371	<172	75.0	1.6
50%	59°F	2343	213	31.0	986	<172	73.1	1.6
	95°F	2343	213	31.0	986	<172	73.1	1.6

Notes: 1 – All performance data based on fuel energy content of 1067 Btu/CF HHV

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*	4'11"	13'7"	7'3"	13,228
Core system based on minimum width*	4'11"	13'7"	7'3"	
Heat Rejection subsystem*	Included in module	Included in module	Included in module	Included in module
Largest part for delivery	4'11"	13'7"	7'3"	13,228
Heaviest part for delivery	4'11"	13'7"	7'3"	13,228

*Includes maintenance clearances.

Vendor Information

2G Energy, Inc. 205 Commercial Drive St. Augustine, FL 32092 (904-579-3217 j.winfree@2-g.com www.2g-energy.com

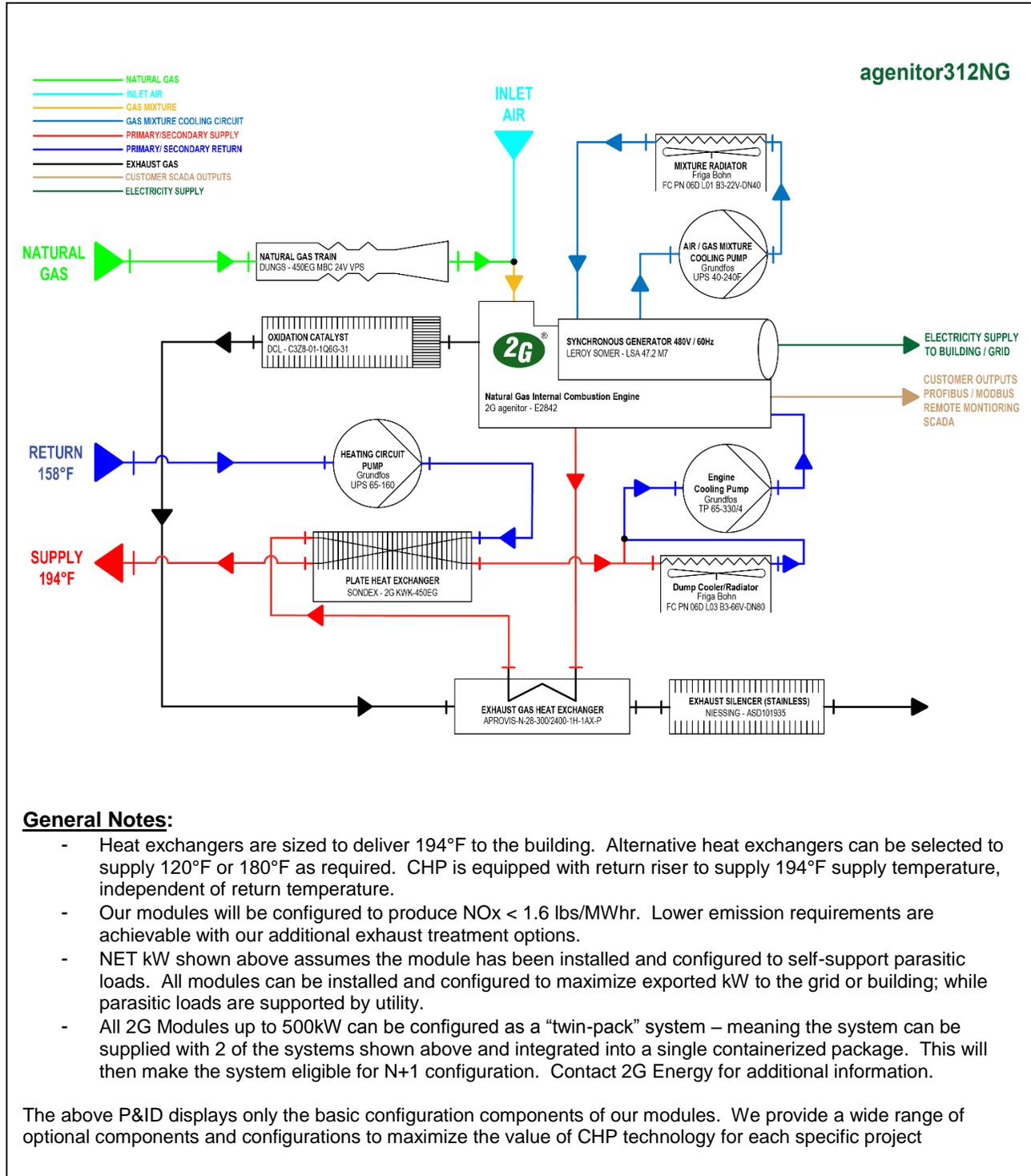
Vendor Statement

	<p>2G[®] is a global leader in manufacturing highly efficient CHP cogeneration power plants. Known for producing the world's most advanced and efficient cogeneration modules, and as per March 2016, having more than 5000 CHP's installed and operating, 2G[®] is specialized in modular energy conversion technologies. All cogeneration systems are designed and manufactured "connection ready", are fully factory tested and come as complete "Plug & Play" modules. This allows for an extremely fast and cost-effective installation, increases product reliability, and assures trouble-free operations. (Please watch our video located at www.2g-energy.com).</p> <p>*We offer fully containerized and inside building installations.</p> <p style="text-align: center;"><i>“Quality... is everything we do!”</i></p>
--	--

2G Energy, Inc.

agenitor312NG

450kW





2G Energy, Inc.

agenitor312NG-S1

450kW

Description

Type of prime mover	Number of prime mover units	Synchronous or Inverter	Type	Black-Start Capable	Qualification Status
RICE	1	Synchronous	CHP Steam	Yes	Conditionally qualified

Performance

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	Steam @ 10 psig			NOx lbs/MWh
					MBtu/h	Water Inlet Temperature °F	Net System Efficiency % (HHV)	
100%	59°F	4287	438	34.9	1750	180	75.7	1.6
	95°F	4287	438	34.9	1750	180	75.7	1.6
75%	59°F	3312	326	33.6	1371	180	75.0	1.6
	95°F	3312	326	33.6	1371	180	75.0	1.6
50%	59°F	2343	213	31.0	986	180	73.1	1.6
	95°F	2343	213	31.0	986	180	73.1	1.6

Notes: 1 – All performance data based on fuel energy content of 1067 Btu/CF HHV

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*	4'11"	13'7"	7'3"	13,228
Core system based on minimum width*	4'11"	13'7"	7'3"	
Heat Rejection subsystem*	Included in module	Included in module	Included in module	Included in module
Largest part for delivery	4'11"	13'7"	7'3"	13,228
Heaviest part for delivery	4'11"	13'7"	7'3"	13,228

*Includes maintenance clearances.

Vendor Information

2G Energy, Inc. 205 Commercial Drive St. Augustine, FL 32092 (904) 579-3217 j.winfree@2-g.com www.2g-energy.com
--

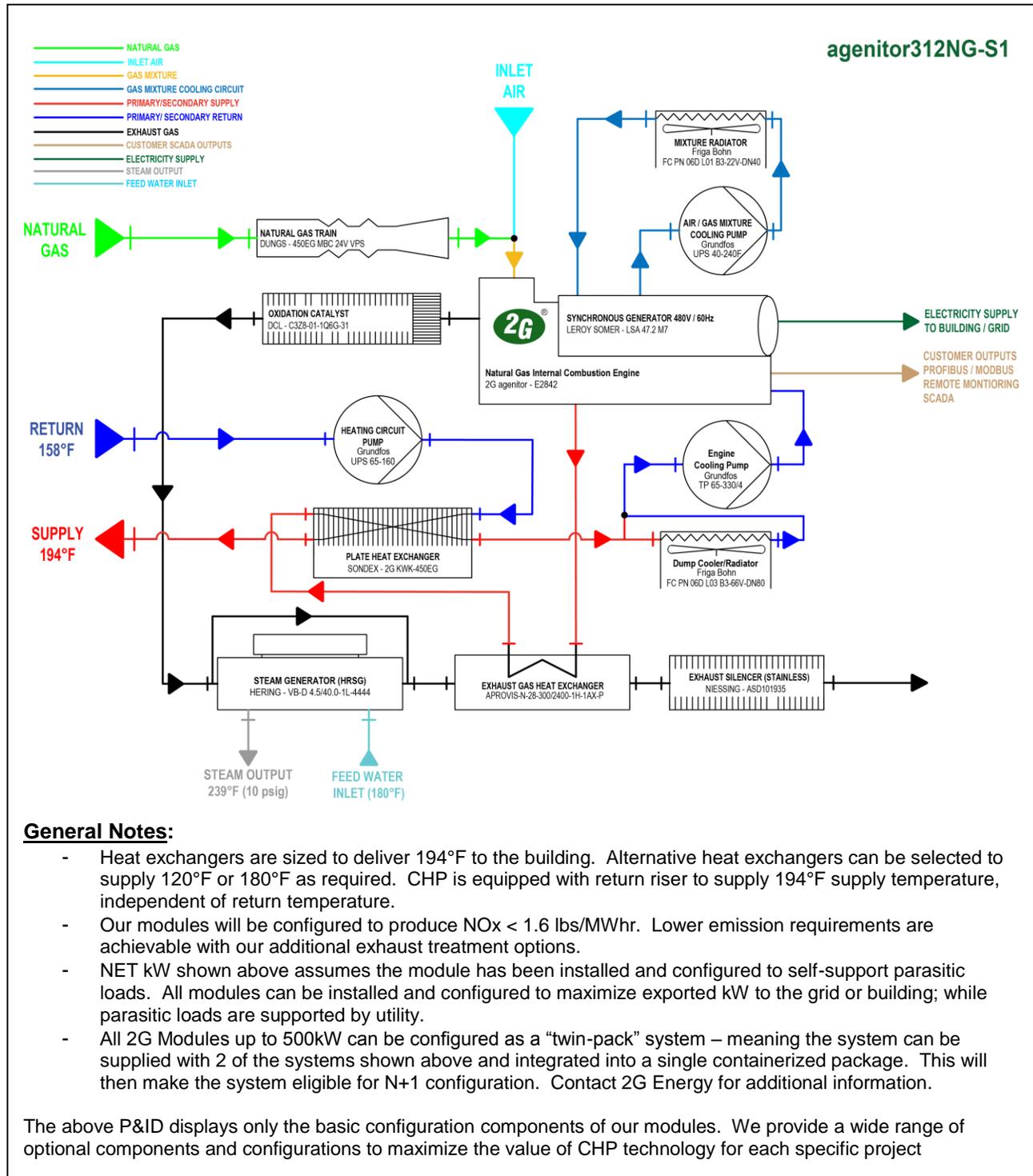
Vendor Statement

	<p>2G[®] is a global leader in manufacturing highly efficient CHP cogeneration power plants. Known for producing the world's most advanced and efficient cogeneration modules, and as per March 2016, having more than 5000 CHP's installed and operating, 2G[®] is specialized in modular energy conversion technologies. All cogeneration systems are designed and manufactured "connection ready", are fully factory tested and come as complete "Plug & Play" modules. This allows for an extremely fast and cost-effective installation, increases product reliability, and assures trouble-free operations. (Please watch our video located at www.2g-energy.com).</p> <p>*We offer fully containerized and inside building installations.</p> <p style="text-align: center;"><i>“Quality... is everything we do!”</i></p>
---	--

2G Energy, Inc.

agenitor312NG-S1

450kW





2G Energy, Inc.

agenitor312NG-S2

450kW

Description

Type of prime mover	Number of prime mover units	Synchronous or Inverter	Type	Black-Start Capable	Qualification Status
RICE	1	Synchronous	CHP Steam	Yes	Conditionally qualified

Performance

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	Steam @ 100 psig			NOx lbs/MWh
					MBtu/h	Water Inlet Temperature °F	Net System Efficiency % (HHV)	
100%	59°F	4287	438	34.9	1750	180	75.7	1.6
	95°F	4287	438	34.9	1750	180	75.7	1.6
75%	59°F	3312	326	33.6	1371	180	75.0	1.6
	95°F	3312	326	33.6	1371	180	75.0	1.6
50%	59°F	2343	213	31.0	986	180	73.1	1.6
	95°F	2343	213	31.0	986	180	73.1	1.6

Notes: 1 – All performance data based on fuel energy content of 1067 Btu/CF HHV

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*	4'11"	13'7"	7'3"	13,228
Core system based on minimum width*	4'11"	13'7"	7'3"	
Heat Rejection subsystem*	Included in module	Included in module	Included in module	Included in module
Largest part for delivery	4'11"	13'7"	7'3"	13,228
Heaviest part for delivery	4'11"	13'7"	7'3"	13,228

*Includes maintenance clearances.

Vendor Information

2G Energy, Inc. 205 Commercial Drive St. Augustine, FL 32092 (904) 579-3217 j.winfree@2-g.com www.2g-energy.com
--

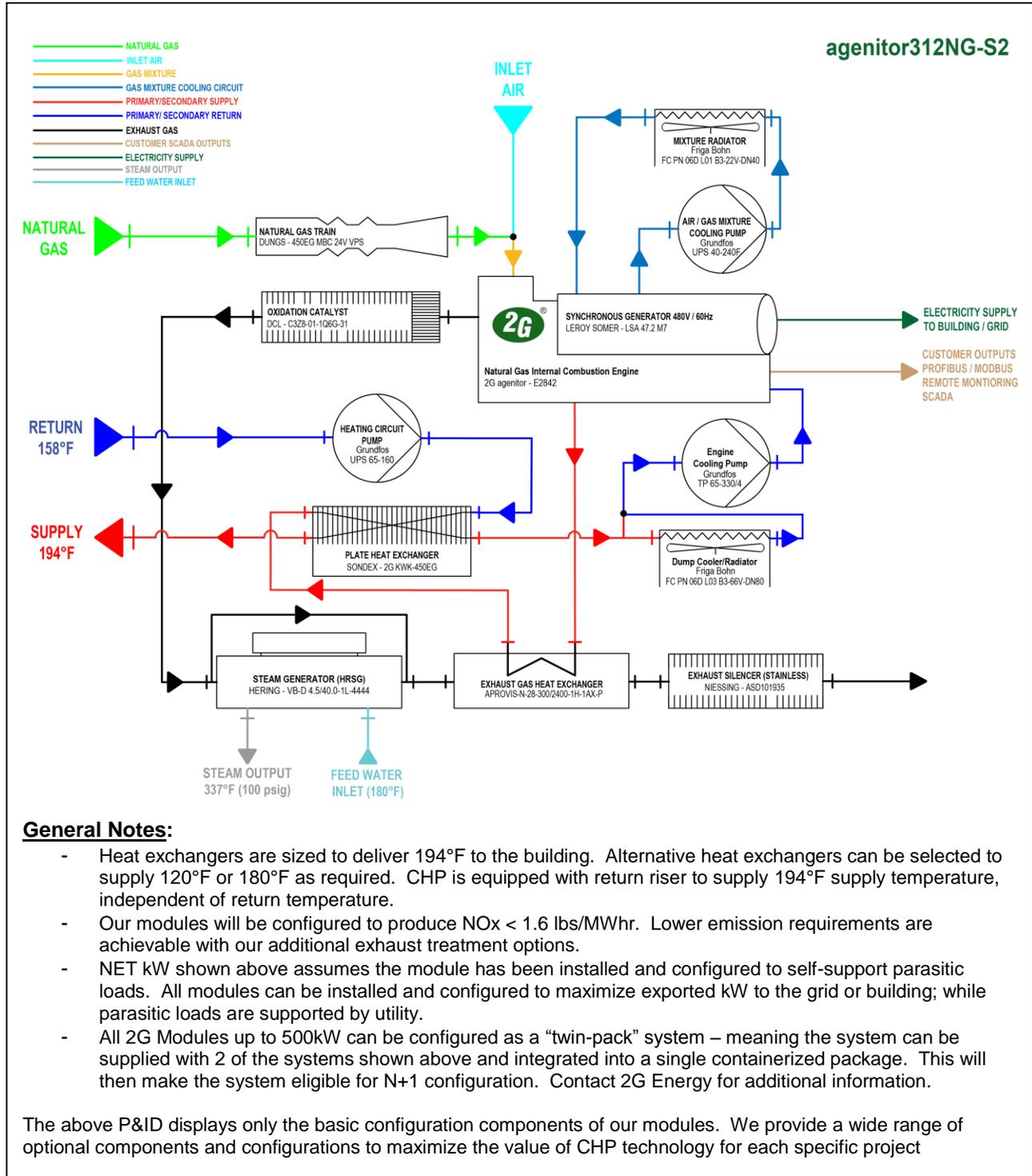
Vendor Statement

	<p>2G[®] is a global leader in manufacturing highly efficient CHP cogeneration power plants. Known for producing the world's most advanced and efficient cogeneration modules, and as per March 2016, having more than 5000 CHP's installed and operating, 2G[®] is specialized in modular energy conversion technologies. All cogeneration systems are designed and manufactured "connection ready", are fully factory tested and come as complete "Plug & Play" modules. This allows for an extremely fast and cost-effective installation, increases product reliability, and assures trouble-free operations. (Please watch our video located at www.2g-energy.com).</p> <p>*We offer fully containerized and inside building installations.</p> <p style="text-align: center;"><i>“Quality... is everything we do!”</i></p>
--	--

2G Energy, Inc.

agenitor312NG-S2

450kW





2G Energy, Inc.

agenitor306NGTP

500kw

Description

Type of prime mover	Number of prime mover units	Synchronous or Inverter	Type	Black-Start Capable	Qualification Status
RICE	2	Synchronous	CHP-HW	Yes	Conditionally qualified

Performance

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	Hot Water to Building @ 194°F			NOx lbs/MWh
					MBtu/h	Return °F	Net System Efficiency % (HHV)	
100%	59°F	4864	484	33.7	2040	<172	75.3	1.6
	95°F	4864	484	33.7	2040	<172	75.3	1.6
75%	59°F	3825	359	31.8	1622	<172	73.9	1.6
	95°F	3825	359	31.8	1622	<172	73.9	1.6
25%	59°F	2787	117	28.4	602	<172	71.3	1.6
	95°F	2787	117	28.4	602	<172	71.3	1.6

Notes: 1 – All performance data based on fuel energy content of 1067 Btu/CF HHV

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*	9'11"	49'3"	9'11"	Approx. 55,321
Core system based on minimum width*	9'11"	49'3"	9'11"	
Heat Rejection subsystem*	Included in container	Included in container	Included in container	Included in container
Largest part for delivery	9'11"	49'3"	9'11"	Approx. 55,321
Heaviest part for delivery	9'11"	49'3"	9'11"	Approx. 55,321

*Includes maintenance clearances. Complete system installed in a container.

Vendor Information

2G Energy, Inc. 205 Commercial Drive St. Augustine, FL 32092 (904) 579-3217 j.winfree@2-g.com www.2g-energy.com
--

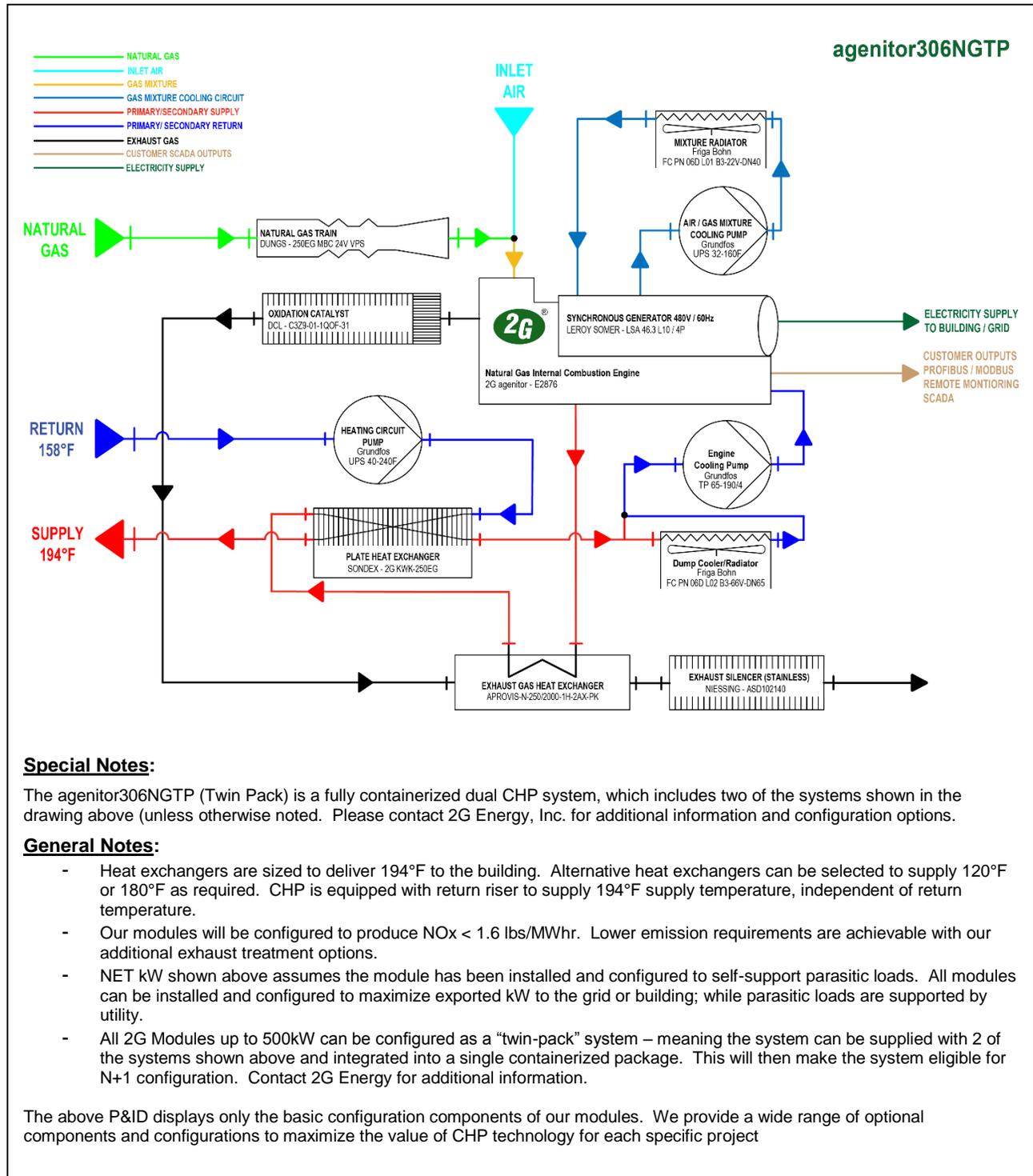
Vendor Statement

	<p>2G[®] is a global leader in manufacturing highly efficient CHP cogeneration power plants. Known for producing the world's most advanced and efficient cogeneration modules, and as per March 2016, having more than 5000 CHP's installed and operating, 2G[®] is specialized in modular energy conversion technologies. All cogeneration systems are designed and manufactured "connection ready", are fully factory tested and come as complete "Plug & Play" modules. This allows for an extremely fast and cost-effective installation, increases product reliability, and assures trouble-free operations. (Please watch our video located at www.2g-energy.com).</p> <p>*We offer fully containerized and inside building installations.</p> <p style="text-align: center;"><i>“Quality... is everything we do!”</i></p>
--	--

2G Energy, Inc.

agenitor306NGTP

500kw





2G Energy, Inc.

agenitor306NGTP-S1

500kw

Description

Type of prime mover	Number of prime mover units	Synchronous or Inverter	Type	Black-Start Capable	Qualification Status
RICE	2	Synchronous	CHP Steam	Yes	Conditionally qualified

Performance

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	Steam @ 10 psig			NOx lbs/MWh
					MBtu/h	Water Inlet Temperature °F	Net System Efficiency % (HHV)	
100%	59°F	4864	484	33.7	2040	180	75.3	1.6
	95°F	4864	484	33.7	2040	180	75.3	1.6
75%	59°F	3825	359	31.8	1622	180	73.9	1.6
	95°F	3825	359	31.8	1622	180	73.9	1.6
50%	59°F	2787	117	28.4	602	180	71.3	1.6
	95°F	2787	117	28.4	602	180	71.3	1.6

Notes: 1 – All performance data based on fuel energy content of 1067 Btu/CF HHV

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*	9'11"	49'3"	9'11"	Approx. 55,321
Core system based on minimum width*	9'11"	49'3"	9'11"	
Heat Rejection subsystem*	Included in container	Included in container	Included in container	Included in container
Largest part for delivery	9'11"	49'3"	9'11"	Approx. 55,321
Heaviest part for delivery	9'11"	49'3"	9'11"	Approx. 55,321

*Includes maintenance clearances.

Vendor Information

2G Energy, Inc. 205 Commercial Drive St. Augustine, FL 32092 (904) 579-3217 j.winfree@2-g.com www.2g-energy.com
--

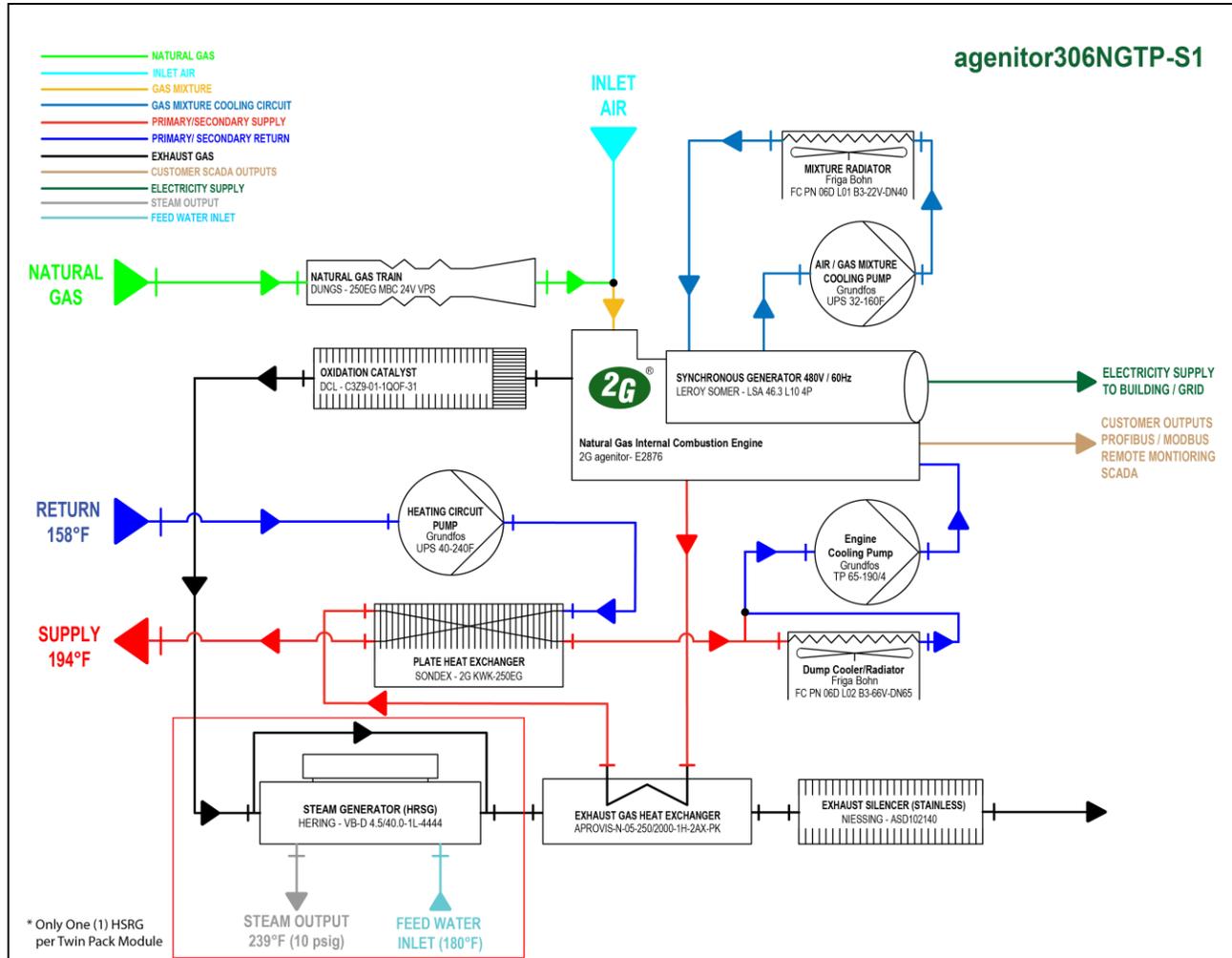
Vendor Statement

	<p>2G[®] is a global leader in manufacturing highly efficient CHP cogeneration power plants. Known for producing the world's most advanced and efficient cogeneration modules, and as per March 2016, having more than 5000 CHP's installed and operating, 2G[®] is specialized in modular energy conversion technologies. All cogeneration systems are designed and manufactured "connection ready", are fully factory tested and come as complete "Plug & Play" modules. This allows for an extremely fast and cost-effective installation, increases product reliability, and assures trouble-free operations. (Please watch our video located at www.2g-energy.com).</p> <p>*We offer fully containerized and inside building installations.</p> <p style="text-align: center;"><i>“Quality... is everything we do!”</i></p>
--	--

2G Energy, Inc.

agenitor306NGTP-S1

500kw



Special Notes:

The agenitor306NGTP (Twin Pack) is a fully containerized dual CHP system, which includes two of the systems shown in the drawing above (unless otherwise noted). Please contact 2G Energy, Inc. for additional information and configuration options.

General Notes:

- Heat exchangers are sized to deliver 194°F to the building. Alternative heat exchangers can be selected to supply 120°F or 180°F as required. CHP is equipped with return riser to supply 194°F supply temperature, independent of return temperature.
- Our modules will be configured to produce NOx < 1.6 lbs/MW/hr. Lower emission requirements are achievable with our additional exhaust treatment options.
- NET kW shown above assumes the module has been installed and configured to self-support parasitic loads. All modules can be installed and configured to maximize exported kW to the grid or building; while parasitic loads are supported by utility.
- All 2G Modules up to 500kW can be configured as a “twin-pack” system – meaning the system can be supplied with 2 of the systems shown above and integrated into a single containerized package. This will then make the system eligible for N+1 configuration. Contact 2G Energy for additional information.

The above P&ID displays only the basic configuration components of our modules. We provide a wide range of optional components and configurations to maximize the value of CHP technology for each specific project.



2G Energy, Inc.

agenitor306NGTP-S2

500kw

Description

Type of prime mover	Number of prime mover units	Synchronous or Inverter	Type	Black-Start Capable	Qualification Status
RICE	2	Synchronous	CHP Steam	Yes	Conditionally qualified

Performance

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	Steam @ 100 psig			NOx lbs/MWh
					MBtu/h	Water Inlet Temperature °F	Net System Efficiency % (HHV)	
100%	59°F	4864	484	33.7	2040	180	75.3	1.6
	95°F	4864	484	33.7	2040	180	75.3	1.6
75%	59°F	3825	359	31.8	1622	180	73.9	1.6
	95°F	3825	359	31.8	1622	180	73.9	1.6
50%	59°F	2787	117	28.4	602	180	71.3	1.6
	95°F	2787	117	28.4	602	180	71.3	1.6

Notes: 1 – All performance data based on fuel energy content of 1067 Btu/CF HHV

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*	9'11"	49'3"	9'11"	Approx. 55,321
Core system based on minimum width*	9'11"	49'3"	9'11"	
Heat Rejection subsystem*	Included in container	Included in container	Included in container	Included in container
Largest part for delivery	9'11"	49'3"	9'11"	Approx. 55,321
Heaviest part for delivery	9'11"	49'3"	9'11"	Approx. 55,321

*Includes maintenance clearances.

Vendor Information

2G Energy, Inc. 205 Commercial Drive St. Augustine, FL 32092 (904) 579-3217 j.winfree@2-g.com www.2g-energy.com
--

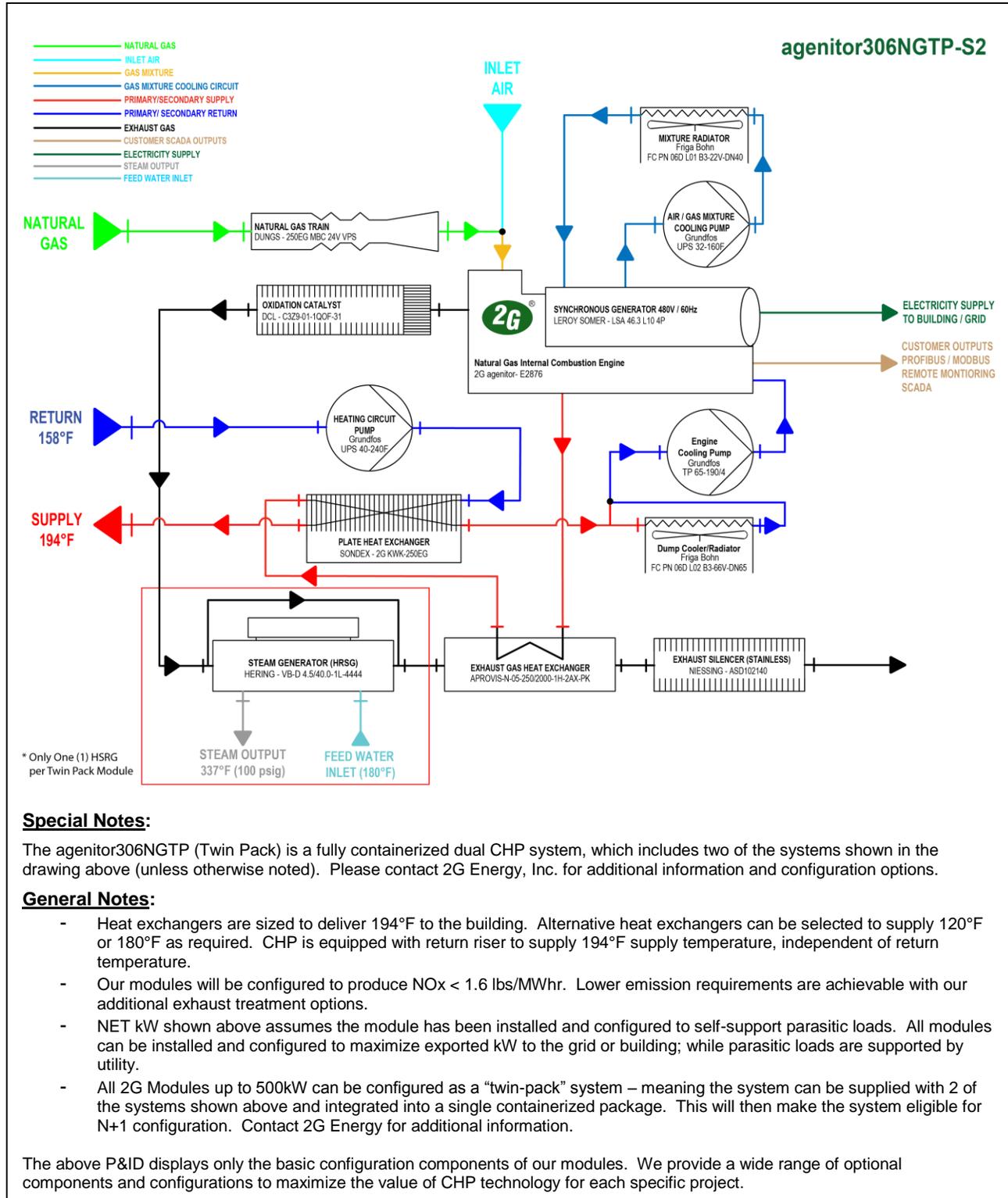
Vendor Statement

	2G [®] is a global leader in manufacturing highly efficient CHP cogeneration power plants. Known for producing the world's most advanced and efficient cogeneration modules, and as per March 2016, having more than 5000 CHP's installed and operating, 2G [®] is specialized in modular energy conversion technologies. All cogeneration systems are designed and manufactured "connection ready", are fully factory tested and come as complete "Plug & Play" modules. This allows for an extremely fast and cost-effective installation, increases product reliability, and assures trouble-free operations. (Please watch our video located at www.2g-energy.com).
*We offer fully containerized and inside building installations.	
<p><i>“Quality... is everything we do!”</i></p>	

2G Energy, Inc.

agenitor306NGTP-S2

500kw





2G Energy, Inc.

patruus265NGTP

530kW

Description

Type of prime mover	Number of prime mover units	Synchronous or Inverter	Type	Black-Start Capable	Qualification Status
RICE	2	Synchronous	CHP-HW	Yes	Conditionally qualified

Performance

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	Hot Water to Building @ 194°F			NOx lbs/MWh
					MBtu/h	Return °F	Net System Efficiency % (HHV)	
100%	59°F	5649	520	31.4	2824	<172	81.4	1.6
	95°F	5649	520	31.4	2824	<172	81.4	1.6
75%	59°F	4510	387	29.3	2282	<172	79.9	1.6
	95°F	4510	387	29.3	2282	<172	79.9	1.6
25%	59°F	1685	127	25.7	870	<172	77.3	1.6
	95°F	1685	127	25.7	870	<172	77.3	1.6

Notes: 1 – All performance data based on fuel energy content of 1067 Btu/CF HHV

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*	9'11"	49'3"	9'11"	Approx. 57,321
Core system based on minimum width*	9'11"	49'3"	9'11"	
Heat Rejection subsystem*	Included in container	Included in container	Included in container	Included in container
Largest part for delivery	9'11"	49'3"	9'11"	Approx. 57,321
Heaviest part for delivery	9'11"	49'3"	9'11"	Approx. 57,321

*Includes maintenance clearances. Complete system installed in a container.

Vendor Information

2G Energy, Inc. 205 Commercial Drive St. Augustine, FL 32092 (904) 579-3217 i.winfree@2-g.com www.2g-energy.com
--

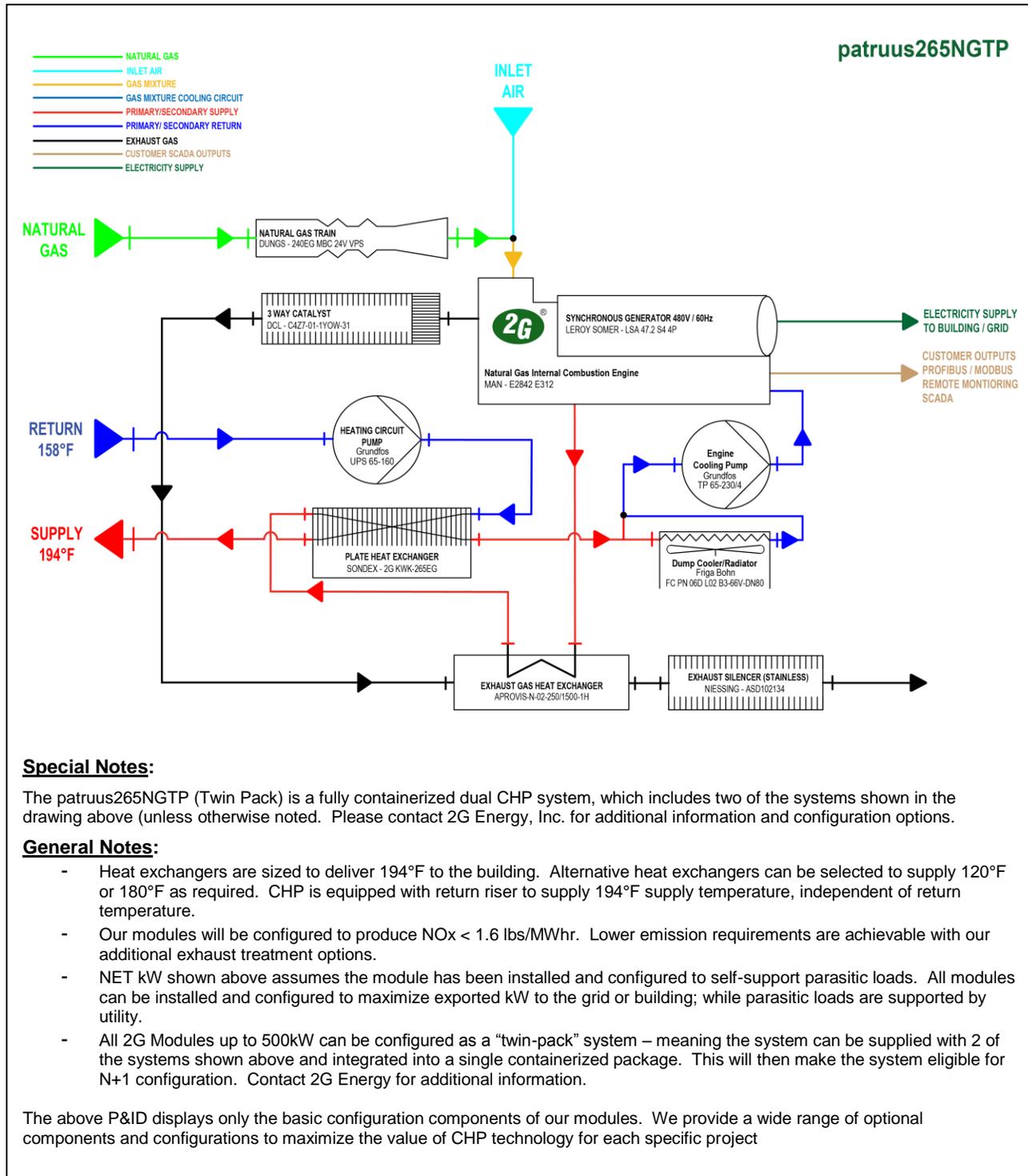
Vendor Statement

	2G [®] is a global leader in manufacturing highly efficient CHP cogeneration power plants. Known for producing the world's most advanced and efficient cogeneration modules, and as per March 2016, having more than 5000 CHP's installed and operating, 2G [®] is specialized in modular energy conversion technologies. All cogeneration systems are designed and manufactured "connection ready", are fully factory tested and come as complete "Plug & Play" modules. This allows for an extremely fast and cost-effective installation, increases product reliability, and assures trouble-free operations. (Please watch our video located at www.2g-energy.com).
*We offer fully containerized and inside building installations.	
<p><i>“Quality... is everything we do!”</i></p>	

2G Energy, Inc.

patruus265NGTP

530kW





2G Energy, Inc.

patruus265NGTP-S1

530kw

Description

Type of prime mover	Number of prime mover units	Synchronous or Inverter	Type	Black-Start Capable	Qualification Status
RICE	2	Synchronous	CHP Steam	Yes	Conditionally qualified

Performance

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	Steam @ 10 psig			NOx lbs/MWh
					MBtu/h	Water Inlet Temperature °F	Net System Efficiency % (HHV)	
100%	59°F	5649	520	31.4	2824	180	81.4	1.6
	95°F	5649	520	31.4	2824	180	81.4	1.6
75%	59°F	4510	387	29.3	2282	180	79.9	1.6
	95°F	4510	387	29.3	2282	180	79.9	1.6
25%	59°F	1685	127	25.7	870	180	77.3	1.6
	95°F	1685	127	25.7	870	180	77.3	1.6

Notes: 1 – All performance data based on fuel energy content of 1067 Btu/CF HHV

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*	9'11"	49'3"	9'11"	Approx. 57,321
Core system based on minimum width*	9'11"	49'3"	9'11"	
Heat Rejection subsystem*	Included in container	Included in container	Included in container	Included in container
Largest part for delivery	9'11"	49'3"	9'11"	Approx. 57,321
Heaviest part for delivery	9'11"	49'3"	9'11"	Approx. 57,321

*Includes maintenance clearances. Complete system installed in a container.

Vendor Information

2G Energy, Inc. 205 Commercial Drive St. Augustine, FL 32092 (904) 579-3217 j.winfree@2-g.com www.2g-energy.com
--

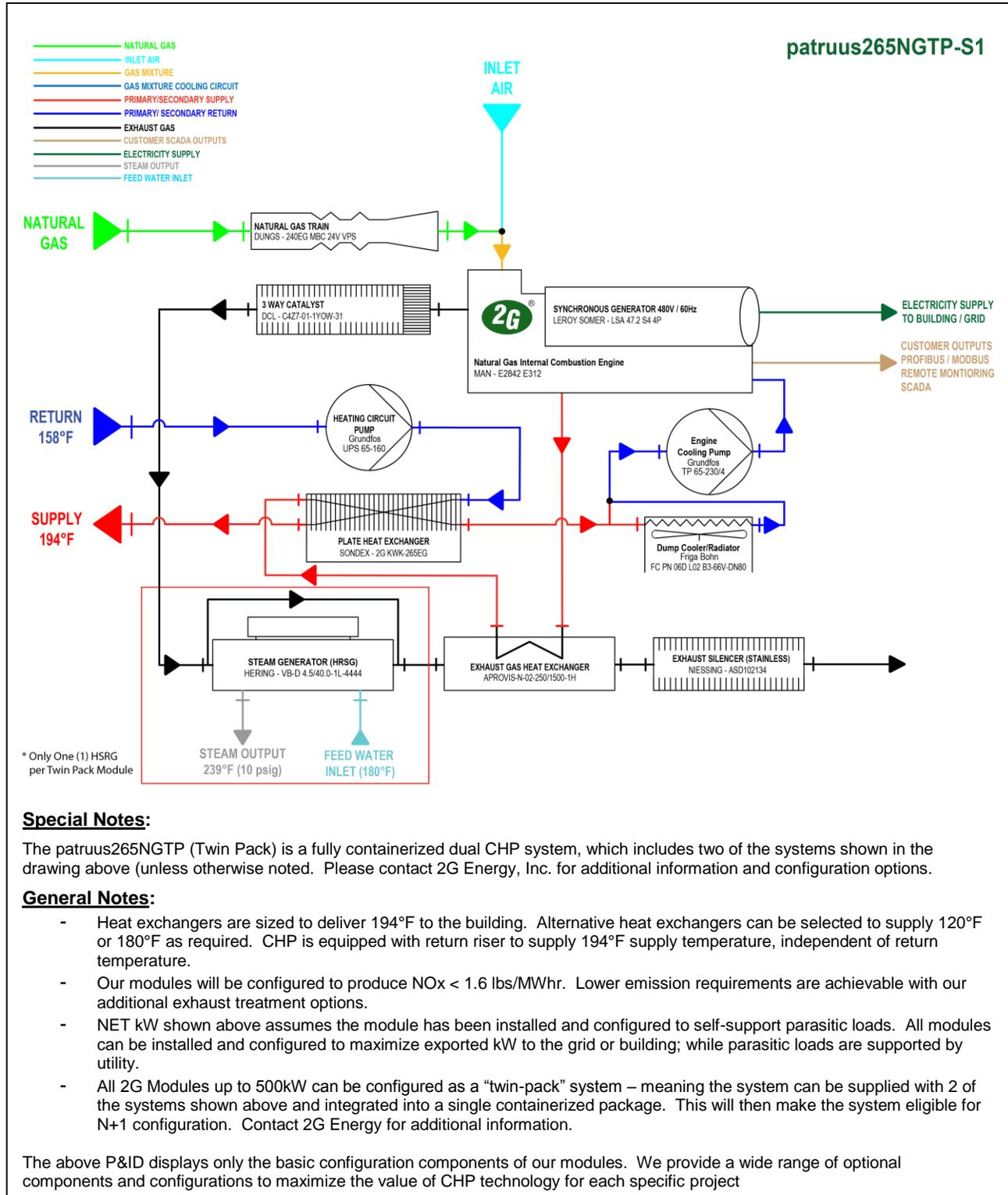
Vendor Statement

	<p>2G[®] is a global leader in manufacturing highly efficient CHP cogeneration power plants. Known for producing the world's most advanced and efficient cogeneration modules, and as per March 2016, having more than 5000 CHP's installed and operating, 2G[®] is specialized in modular energy conversion technologies. All cogeneration systems are designed and manufactured "connection ready", are fully factory tested and come as complete "Plug & Play" modules. This allows for an extremely fast and cost-effective installation, increases product reliability, and assures trouble-free operations. (Please watch our video located at www.2g-energy.com).</p> <p>*We offer fully containerized and inside building installations.</p> <p style="text-align: center;"><i>“Quality... is everything we do!”</i></p>
--	--

2G Energy, Inc.

patruus265NGTP-S1

530kw





2G Energy, Inc.

patruus265NGTP-S2

530kw

Description

Type of prime mover	Number of prime mover units	Synchronous or Inverter	Type	Black-Start Capable	Qualification Status
RICE	2	Synchronous	CHP Steam	Yes	Conditionally qualified

Performance

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	Steam @ 100 psig			NOx lbs/MWh
					MBtu/h	Water Inlet Temperature °F	Net System Efficiency % (HHV)	
100%	59°F	5649	520	31.4	2824	180	81.4	1.6
	95°F	5649	520	31.4	2824	180	81.4	1.6
75%	59°F	4510	387	29.3	2282	180	79.9	1.6
	95°F	4510	387	29.3	2282	180	79.9	1.6
25%	59°F	1685	127	25.7	870	180	77.3	1.6
	95°F	1685	127	25.7	870	180	77.3	1.6

Notes: 1 – All performance data based on fuel energy content of 1067 Btu/CF HHV

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*	9'11"	49'3"	9'11"	Approx. 57,321
Core system based on minimum width*	9'11"	49'3"	9'11"	
Heat Rejection subsystem*	Included in container	Included in container	Included in container	Included in container
Largest part for delivery	9'11"	49'3"	9'11"	Approx. 57,321
Heaviest part for delivery	9'11"	49'3"	9'11"	Approx. 57,321

*Includes maintenance clearances. Complete system installed in a container.

Vendor Information

2G Energy, Inc. 205 Commercial Drive St. Augustine, FL 32092 (904) 579-3217 j.winfree@2-g.com www.2g-energy.com
--

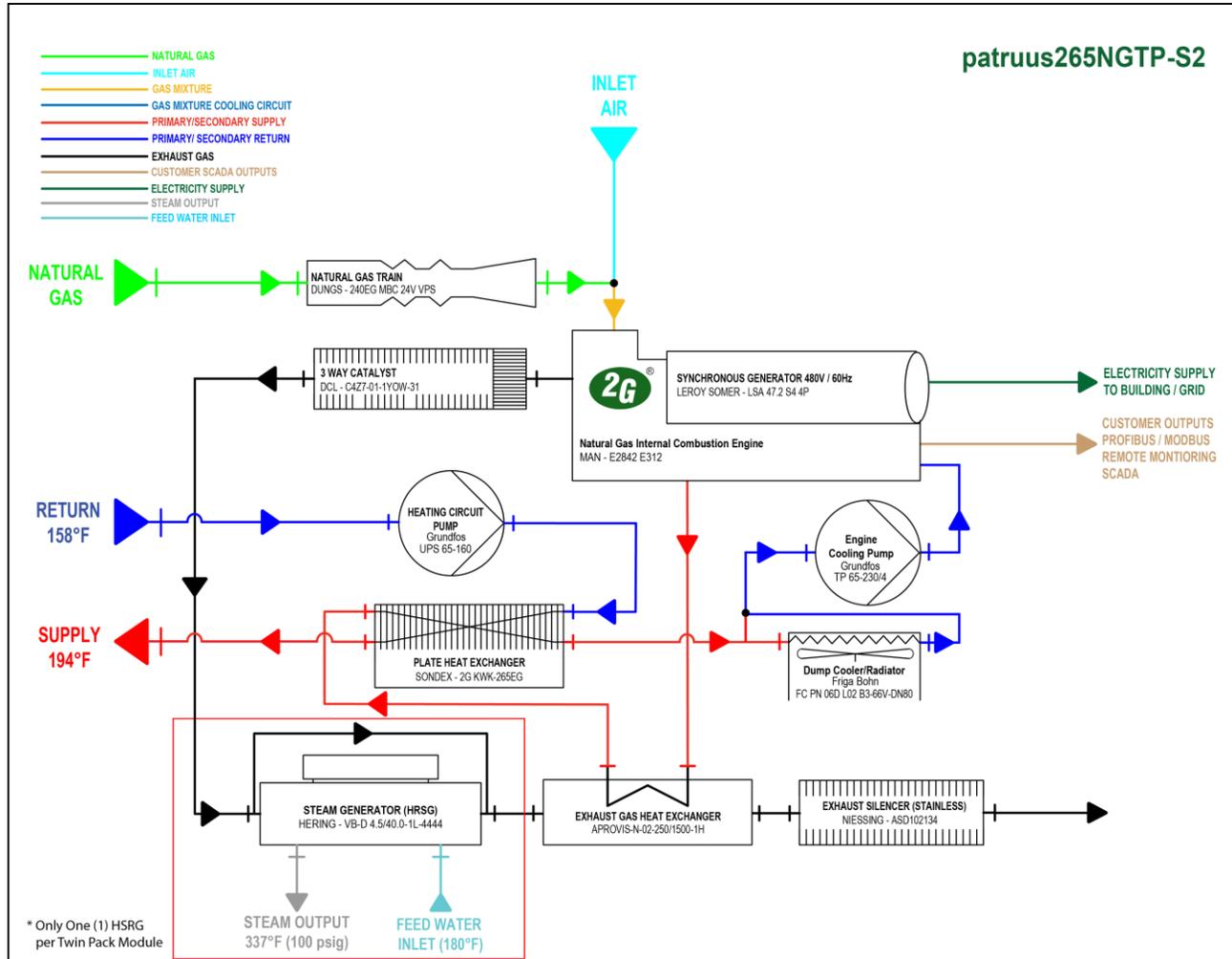
Vendor Statement

	<p>2G[®] is a global leader in manufacturing highly efficient CHP cogeneration power plants. Known for producing the world's most advanced and efficient cogeneration modules, and as per March 2016, having more than 5000 CHP's installed and operating, 2G[®] is specialized in modular energy conversion technologies. All cogeneration systems are designed and manufactured "connection ready", are fully factory tested and come as complete "Plug & Play" modules. This allows for an extremely fast and cost-effective installation, increases product reliability, and assures trouble-free operations. (Please watch our video located at www.2g-energy.com).</p> <p>*We offer fully containerized and inside building installations.</p> <p style="text-align: center;"><i>“Quality... is everything we do!”</i></p>
--	--

2G Energy, Inc.

patruus265NGTP-S2

530kw



* Only One (1) HRSG per Twin Pack Module

Special Notes:

The patruus265NGTP (Twin Pack) is a fully containerized dual CHP system, which includes two of the systems shown in the drawing above (unless otherwise noted). Please contact 2G Energy, Inc. for additional information and configuration options.

General Notes:

- Heat exchangers are sized to deliver 194°F to the building. Alternative heat exchangers can be selected to supply 120°F or 180°F as required. CHP is equipped with return riser to supply 194°F supply temperature, independent of return temperature.
- Our modules will be configured to produce NOx < 1.6 lbs/MW/hr. Lower emission requirements are achievable with our additional exhaust treatment options.
- NET kW shown above assumes the module has been installed and configured to self-support parasitic loads. All modules can be installed and configured to maximize exported kW to the grid or building; while parasitic loads are supported by utility.
- All 2G Modules up to 500kW can be configured as a “twin-pack” system – meaning the system can be supplied with 2 of the systems shown above and integrated into a single containerized package. This will then make the system eligible for N+1 configuration. Contact 2G Energy for additional information.

The above P&ID displays only the basic configuration components of our modules. We provide a wide range of optional components and configurations to maximize the value of CHP technology for each specific project



2G Energy, Inc.

avus600NG

600kW

Description

Type of prime mover	Number of prime mover units	Synchronous or Inverter	Type	Black-Start Capable	Qualification Status
RICE	1	Synchronous	CHP-HW	Yes	Conditionally qualified

Performance

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	Hot Water to Building @ 194°F			NOx lbs/MWh
					MBtu/h	Return °F	Net System Efficiency % (HHV)	
100%	59°F	5476	583	36.3	2320	<172	78.7	1.6
	95°F	5476	583	36.3	2320	<172	78.7	1.6
75%	59°F	4264	433	34.7	1884	<172	78.8	1.6
	95°F	4264	433	34.7	1884	<172	78.8	1.6
50%	59°F	3062	283	31.5	1433	<172	78.3	1.6
	95°F	3062	283	31.5	1433	<172	78.3	1.6

Notes: 1 – All performance data based on fuel energy content of 1067 Btu/CF HHV

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*	9'11"	39'5"	9'11"	Approx. 52,911
Core system based on minimum width*	9'11"	39'5"	9'11"	
Heat Rejection subsystem*	Included in container	Included in container	Included in container	Included in container
Largest part for delivery	9'11"	39'5"	9'11"	Approx. 52,911
Heaviest part for delivery	9'11"	39'5"	9'11"	Approx. 52,911

*Includes maintenance clearances. Complete system installed in a container.

Vendor Information

2G Energy, Inc. 205 Commercial Drive St. Augustine, FL 32092 (904) 579-3217 i.winfree@2-g.com www.2g-energy.com
--

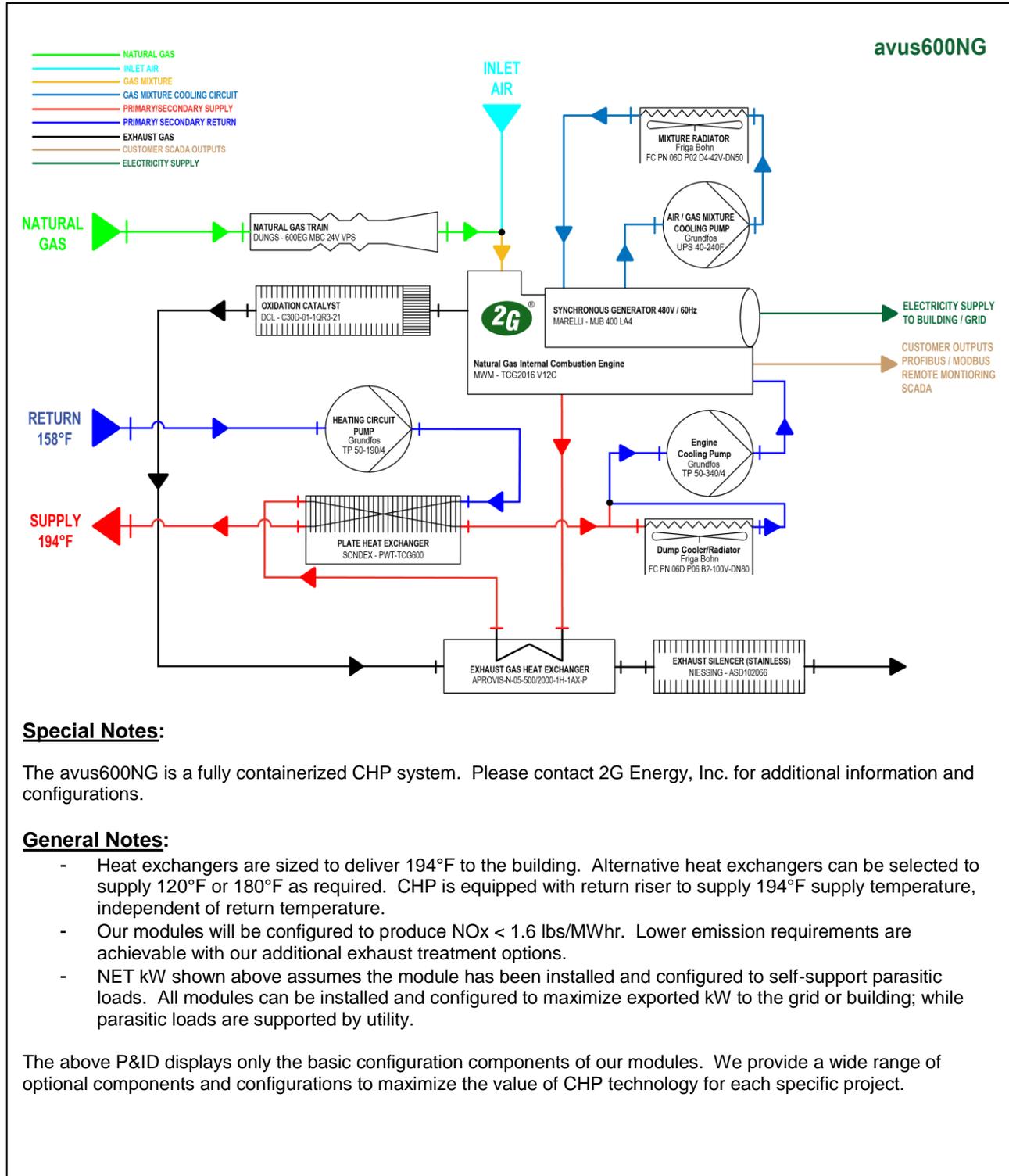
Vendor Statement

	2G [®] is a global leader in manufacturing highly efficient CHP cogeneration power plants. Known for producing the world's most advanced and efficient cogeneration modules, and as per March 2016, having more than 5000 CHP's installed and operating, 2G [®] is specialized in modular energy conversion technologies. All cogeneration systems are designed and manufactured "connection ready", are fully factory tested and come as complete "Plug & Play" modules. This allows for an extremely fast and cost-effective installation, increases product reliability, and assures trouble-free operations. (Please watch our video located at www.2g-energy.com).
*We offer fully containerized and inside building installations.	
<p><i>“Quality... is everything we do!”</i></p>	

2G Energy, Inc.

avus600NG

600kW





2G Energy, Inc.

avus600NG-S1

600kW

Description

Type of prime mover	Number of prime mover units	Synchronous or Inverter	Type	Black-Start Capable	Qualification Status
RICE	1	Synchronous	CHP Steam	Yes	Conditionally qualified

Performance

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	Steam @ 10 psig			NOx lbs/MWh
					MBtu/h	Water Inlet Temperature °F	Net System Efficiency % (HHV)	
100%	59°F	5476	583	36.3	2320	180	78.7	1.6
	95°F	5476	583	36.3	2320	180	78.7	1.6
75%	59°F	4264	433	34.7	1884	180	78.8	1.6
	95°F	4264	433	34.7	1884	180	78.8	1.6
50%	59°F	3062	283	31.5	1433	180	78.3	1.6
	95°F	3062	283	31.5	1433	180	78.3	1.6

Notes: 1 – All performance data based on fuel energy content of 1067 Btu/CF HHV

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*	9'11"	39'5"	9'11"	Approx. 52,911
Core system based on minimum width*	9'11"	39'5"	9'11"	
Heat Rejection subsystem*	Included in container	Included in container	Included in container	Included in container
Largest part for delivery	9'11"	39'5"	9'11"	Approx. 52,911
Heaviest part for delivery	9'11"	39'5"	9'11"	Approx. 52,911

*Includes maintenance clearances.

Vendor Information

2G Energy, Inc. 205 Commercial Drive St. Augustine, FL 32092 (904) 579-3217 j.winfree@2-g.com www.2g-energy.com
--

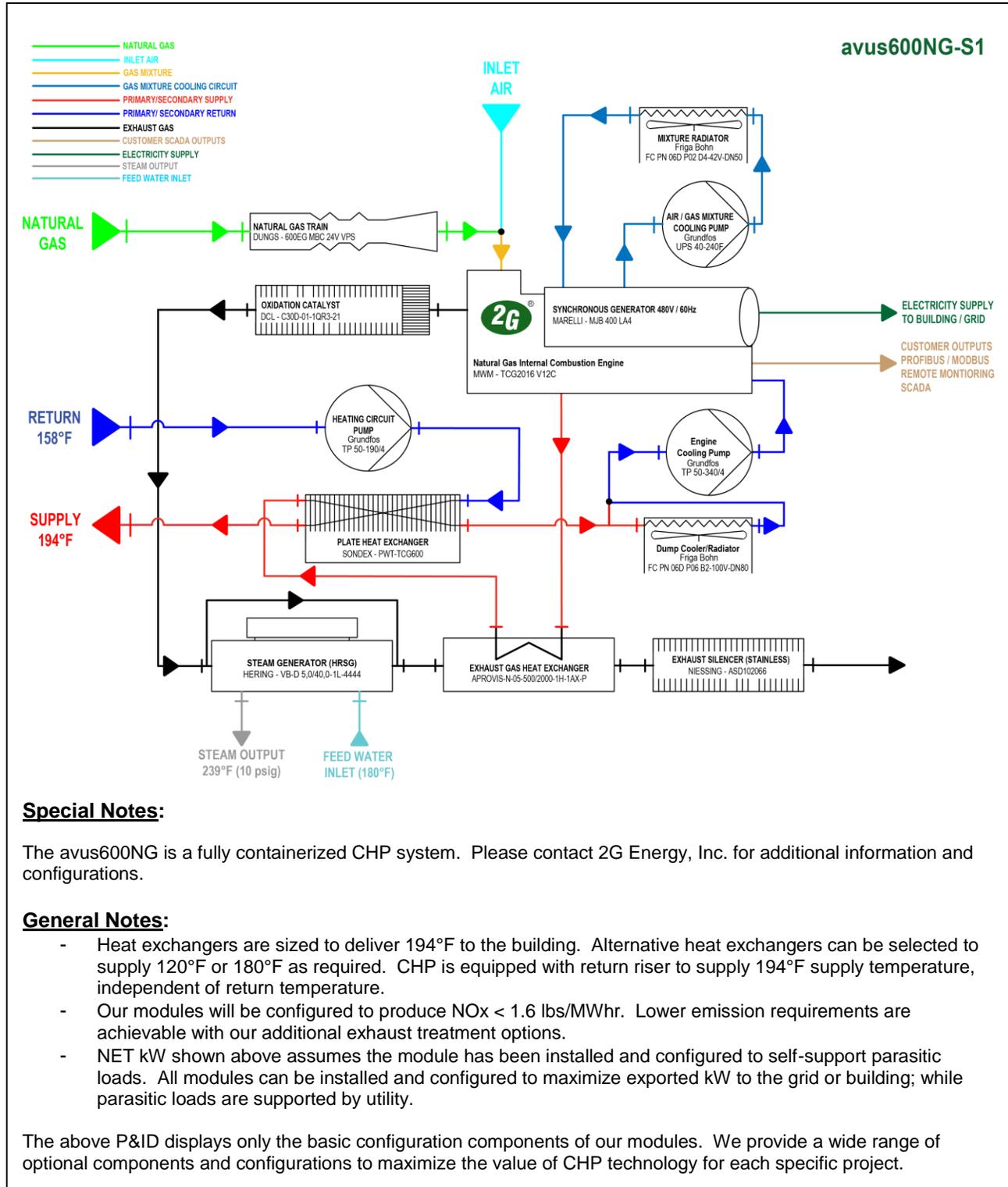
Vendor Statement

	2G [®] is a global leader in manufacturing highly efficient CHP cogeneration power plants. Known for producing the world's most advanced and efficient cogeneration modules, and as per March 2016, having more than 5000 CHP's installed and operating, 2G [®] is specialized in modular energy conversion technologies. All cogeneration systems are designed and manufactured "connection ready", are fully factory tested and come as complete "Plug & Play" modules. This allows for an extremely fast and cost-effective installation, increases product reliability, and assures trouble-free operations. (Please watch our video located at www.2g-energy.com).
*We offer fully containerized and inside building installations.	
<p><i>“Quality... is everything we do!”</i></p>	

2G Energy, Inc.

avus600NG-S1

600kW





2G Energy, Inc.

avus600NG-S2

600kW

Description

Type of prime mover	Number of prime mover units	Synchronous or Inverter	Type	Black-Start Capable	Qualification Status
RICE	1	Synchronous	CHP Steam	Yes	Conditionally qualified

Performance

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	Steam @ 100 psig			NOx lbs/MWh
					MBtu/h	Water Inlet Temperature °F	Net System Efficiency % (HHV)	
100%	59°F	5476	583	36.3	2320	180	78.7	1.6
	95°F	5476	583	36.3	2320	180	78.7	1.6
75%	59°F	4264	433	34.7	1884	180	78.8	1.6
	95°F	4264	433	34.7	1884	180	78.8	1.6
50%	59°F	3062	283	31.5	1433	180	78.3	1.6
	95°F	3062	283	31.5	1433	180	78.3	1.6

Notes: 1 – All performance data based on fuel energy content of 1067 Btu/CF HHV

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*	9'11"	39'5"	9'11"	Approx. 52,911
Core system based on minimum width*	9'11"	39'5"	9'11"	
Heat Rejection subsystem*	Included in container	Included in container	Included in container	Included in container
Largest part for delivery	9'11"	39'5"	9'11"	Approx. 52,911
Heaviest part for delivery	9'11"	39'5"	9'11"	Approx. 52,911

*Includes maintenance clearances.

Vendor Information

2G Energy, Inc. 205 Commercial Drive St. Augustine, FL 32092 (904) 579-3217 j.winfree@2-g.com www.2g-energy.com
--

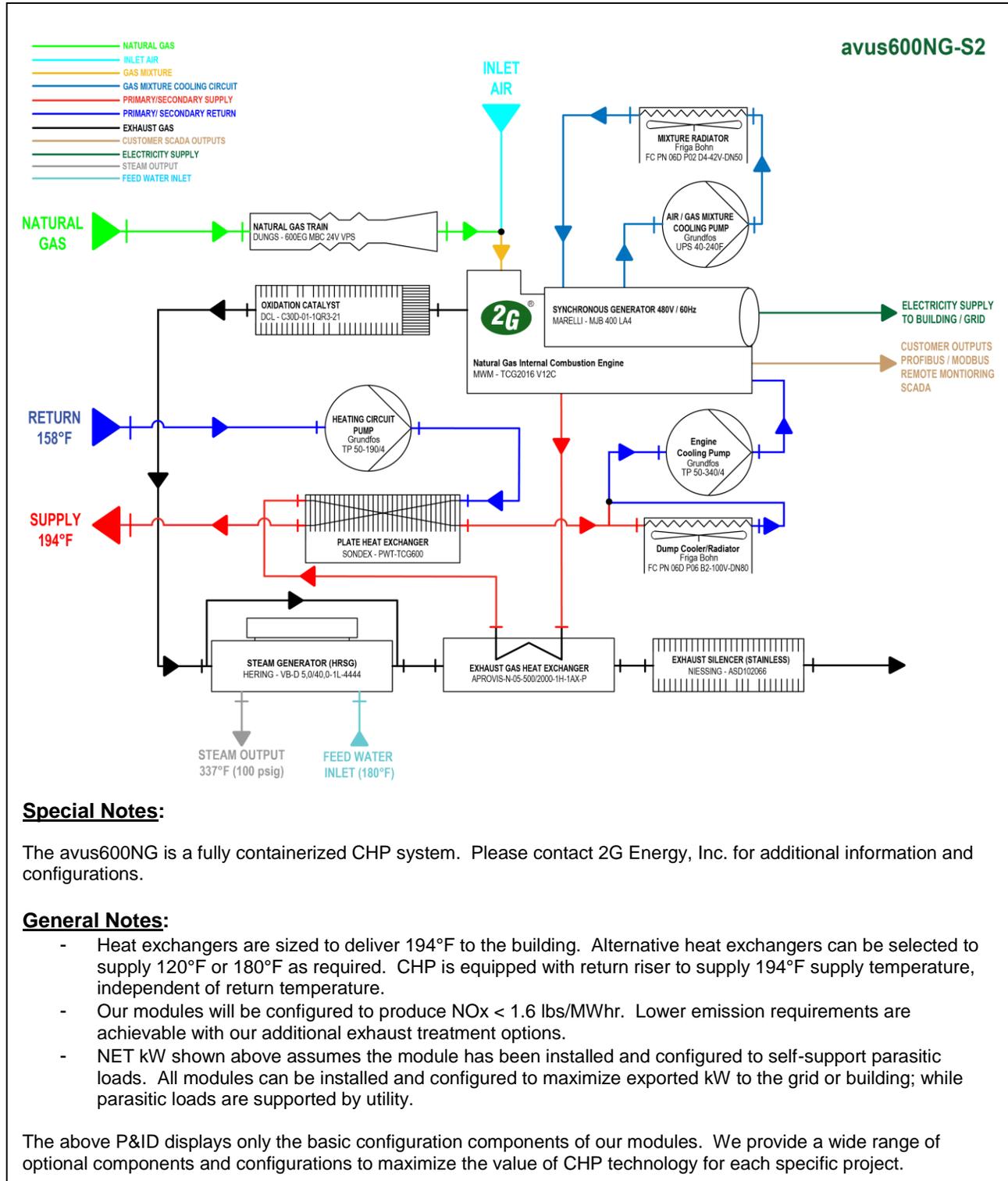
Vendor Statement

	2G [®] is a global leader in manufacturing highly efficient CHP cogeneration power plants. Known for producing the world's most advanced and efficient cogeneration modules, and as per March 2016, having more than 5000 CHP's installed and operating, 2G [®] is specialized in modular energy conversion technologies. All cogeneration systems are designed and manufactured "connection ready", are fully factory tested and come as complete "Plug & Play" modules. This allows for an extremely fast and cost-effective installation, increases product reliability, and assures trouble-free operations. (Please watch our video located at www.2g-energy.com).
*We offer fully containerized and inside building installations.	
<p><i>“Quality... is everything we do!”</i></p>	

2G Energy, Inc.

avus600NG-S2

600kW





2G Energy, Inc.

avus800NG

760kW

Description

Type of prime mover	Number of prime mover units	Synchronous or Inverter	Type	Black-Start Capable	Qualification Status
RICE	1	Synchronous	CHP-HW	Yes	Conditionally qualified

Performance

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	Hot Water to Building @ 194°F			NOx lbs/MWh
					MBtu/h	Return °F	Net System Efficiency % (HHV)	
100%	59°F	7240	740	34.9	3044	<172	76.9	1.6
	95°F	7240	740	34.9	3044	<172	76.9	1.6
75%	59°F	5622	550	33.4	2470	<172	77.3	1.6
	95°F	5622	550	33.4	2470	<172	77.3	1.6
50%	59°F	4027	360	30.5	1884	<172	77.3	1.6
	95°F	4027	360	30.5	1884	<172	77.3	1.6

Notes: 1 – All performance data based on fuel energy content of 1067 Btu/CF HHV

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*	9'11"	39'5"	9'11"	Approx. 55,115
Core system based on minimum width*	9'11"	39'5"	9'11"	
Heat Rejection subsystem*	Included in container	Included in container	Included in container	Included in container
Largest part for delivery	9'11"	39'5"	9'11"	Approx. 55,115
Heaviest part for delivery	9'11"	39'5"	9'11"	Approx. 55,115

*Includes maintenance clearances. Complete system installed in a container.

Vendor Information

2G Energy, Inc. 205 Commercial Drive St. Augustine, FL 32092 (904) 579-3217 j.winfree@2-g.com www.2g-energy.com
--

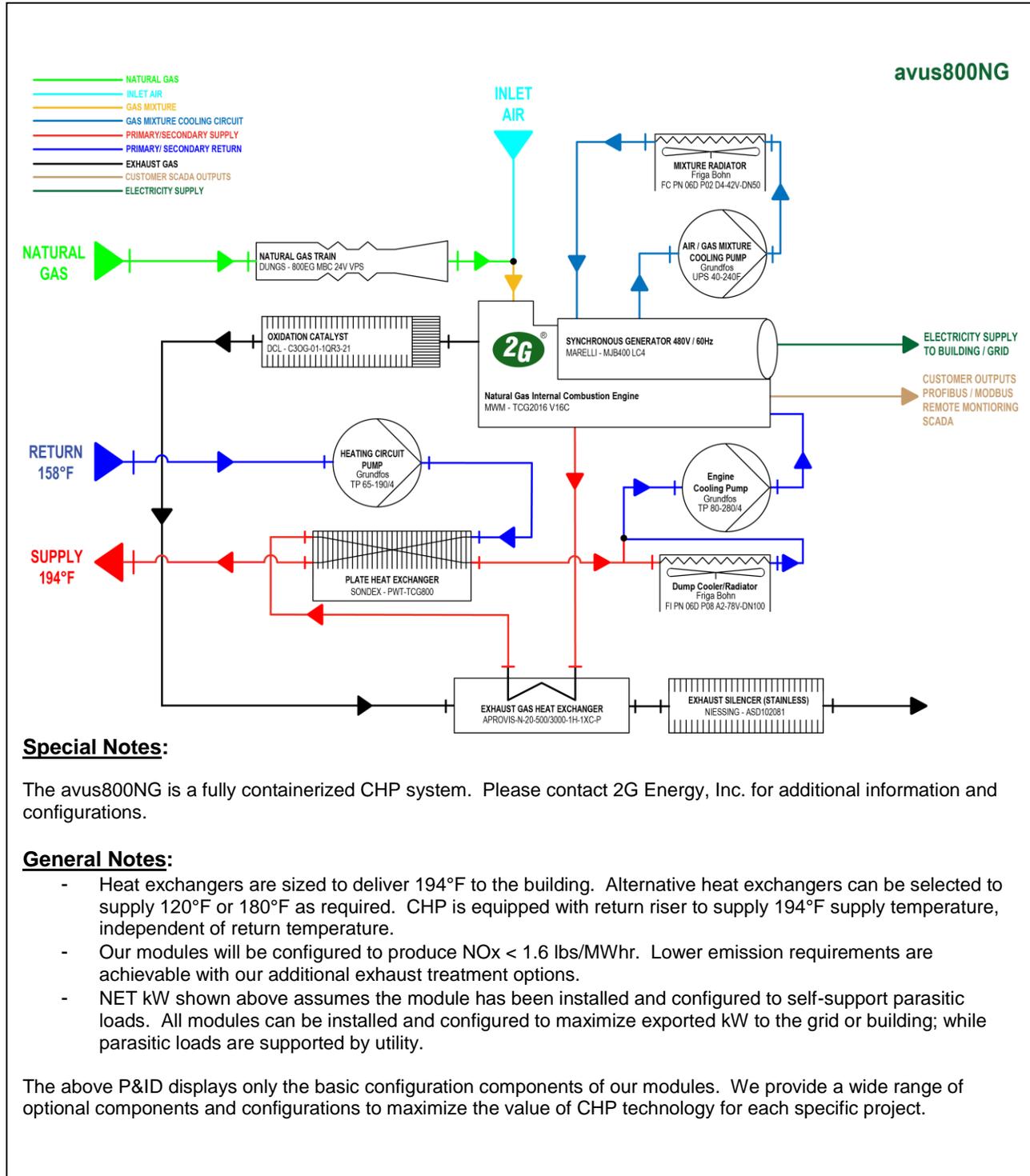
Vendor Statement

	<p>2G[®] is a global leader in manufacturing highly efficient CHP cogeneration power plants. Known for producing the world's most advanced and efficient cogeneration modules, and as per March 2016, having more than 5000 CHP's installed and operating, 2G[®] is specialized in modular energy conversion technologies. All cogeneration systems are designed and manufactured "connection ready", are fully factory tested and come as complete "Plug & Play" modules. This allows for an extremely fast and cost-effective installation, increases product reliability, and assures trouble-free operations. (Please watch our video located at www.2g-energy.com).</p> <p>*We offer fully containerized and inside building installations.</p> <p style="text-align: center;"><i>“Quality... is everything we do!”</i></p>
---	--

2G Energy, Inc.

avus800NG

760kW





2G Energy, Inc.

avus800NG-S1

760kW

Description

Type of prime mover	Number of prime mover units	Synchronous or Inverter	Type	Black-Start Capable	Qualification Status
RICE	1	Synchronous	CHP Steam	Yes	Conditionally qualified

Performance

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	Steam @ 10 psig			NOx lbs/MWh
					MBtu/h	Water Inlet Temperature °F	Net System Efficiency % (HHV)	
100%	59°F	7240	740	34.9	3044	180	76.9	1.6
	95°F	7240	740	34.9	3044	180	76.9	1.6
75%	59°F	5622	550	33.4	2470	180	77.3	1.6
	95°F	5622	550	33.4	2470	180	77.3	1.6
50%	59°F	4027	360	30.5	1884	180	77.3	1.6
	95°F	4027	360	30.5	1884	180	77.3	1.6

Notes: 1 – All performance data based on fuel energy content of 1067 Btu/CF HHV

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*	9'11"	39'5"	9'11"	Approx. 55,115
Core system based on minimum width*	9'11"	39'5"	9'11"	
Heat Rejection subsystem*	Included in container	Included in container	Included in container	Included in container
Largest part for delivery	9'11"	39'5"	9'11"	Approx. 55,115
Heaviest part for delivery	9'11"	39'5"	9'11"	Approx. 55,115

*Includes maintenance clearances.

Vendor Information

2G Energy, Inc. 205 Commercial Drive St. Augustine, FL 32092 (904) 579-3217 j.winfree@2-g.com www.2g-energy.com
--

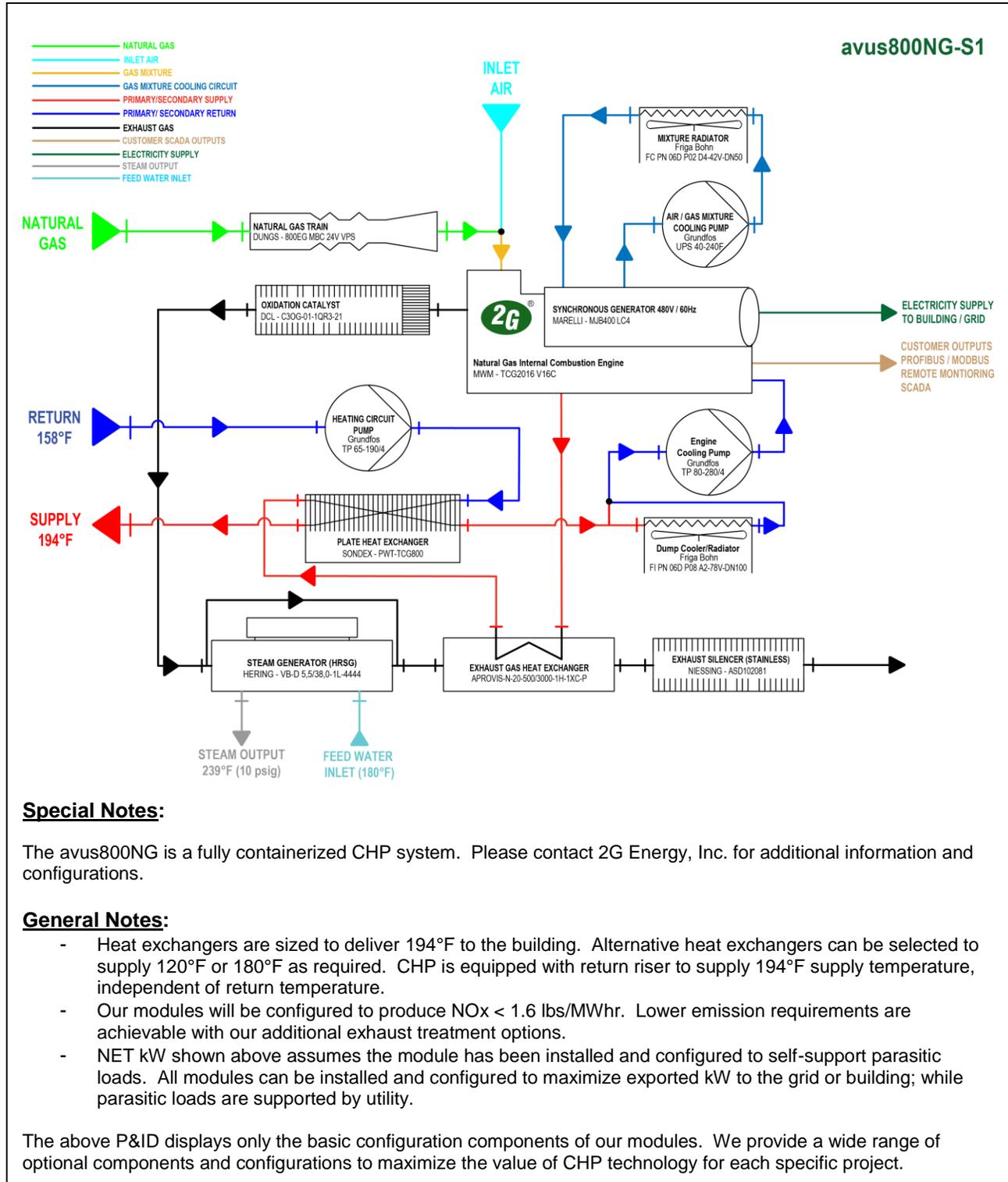
Vendor Statement

	<p>2G[®] is a global leader in manufacturing highly efficient CHP cogeneration power plants. Known for producing the world's most advanced and efficient cogeneration modules, and as per March 2016, having more than 5000 CHP's installed and operating, 2G[®] is specialized in modular energy conversion technologies. All cogeneration systems are designed and manufactured "connection ready", are fully factory tested and come as complete "Plug & Play" modules. This allows for an extremely fast and cost-effective installation, increases product reliability, and assures trouble-free operations. (Please watch our video located at www.2g-energy.com).</p> <p>*We offer fully containerized and inside building installations.</p> <p style="text-align: center;"><i>“Quality... is everything we do!”</i></p>
--	--

2G Energy, Inc.

avus800NG-S1

760kW





2G Energy, Inc.

avus800NG-S2

760kW

Description

Type of prime mover	Number of prime mover units	Synchronous or Inverter	Type	Black-Start Capable	Qualification Status
RICE	1	Synchronous	CHP Steam	Yes	Conditionally qualified

Performance

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	Steam @ 100 psig			NOx lbs/MWh
					MBtu/h	Water Inlet Temperature °F	Net System Efficiency % (HHV)	
100%	59°F	7240	740	34.9	3044	180	76.9	1.6
	95°F	7240	740	34.9	3044	180	76.9	1.6
75%	59°F	5622	550	33.4	2470	180	77.3	1.6
	95°F	5622	550	33.4	2470	180	77.3	1.6
50%	59°F	4027	360	30.5	1884	180	77.3	1.6
	95°F	4027	360	30.5	1884	180	77.3	1.6

Notes: 1 – All performance data based on fuel energy content of 1067 Btu/CF HHV

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*	9'11"	39'5"	9'11"	Approx. 55,115
Core system based on minimum width*	9'11"	39'5"	9'11"	
Heat Rejection subsystem*	Included in container	Included in container	Included in container	Included in container
Largest part for delivery	9'11"	39'5"	9'11"	Approx. 55,115
Heaviest part for delivery	9'11"	39'5"	9'11"	Approx. 55,115

*Includes maintenance clearances.

Vendor Information

2G Energy, Inc. 205 Commercial Drive St. Augustine, FL 32092 (904) 579-3217 j.winfree@2-g.com www.2g-energy.com
--

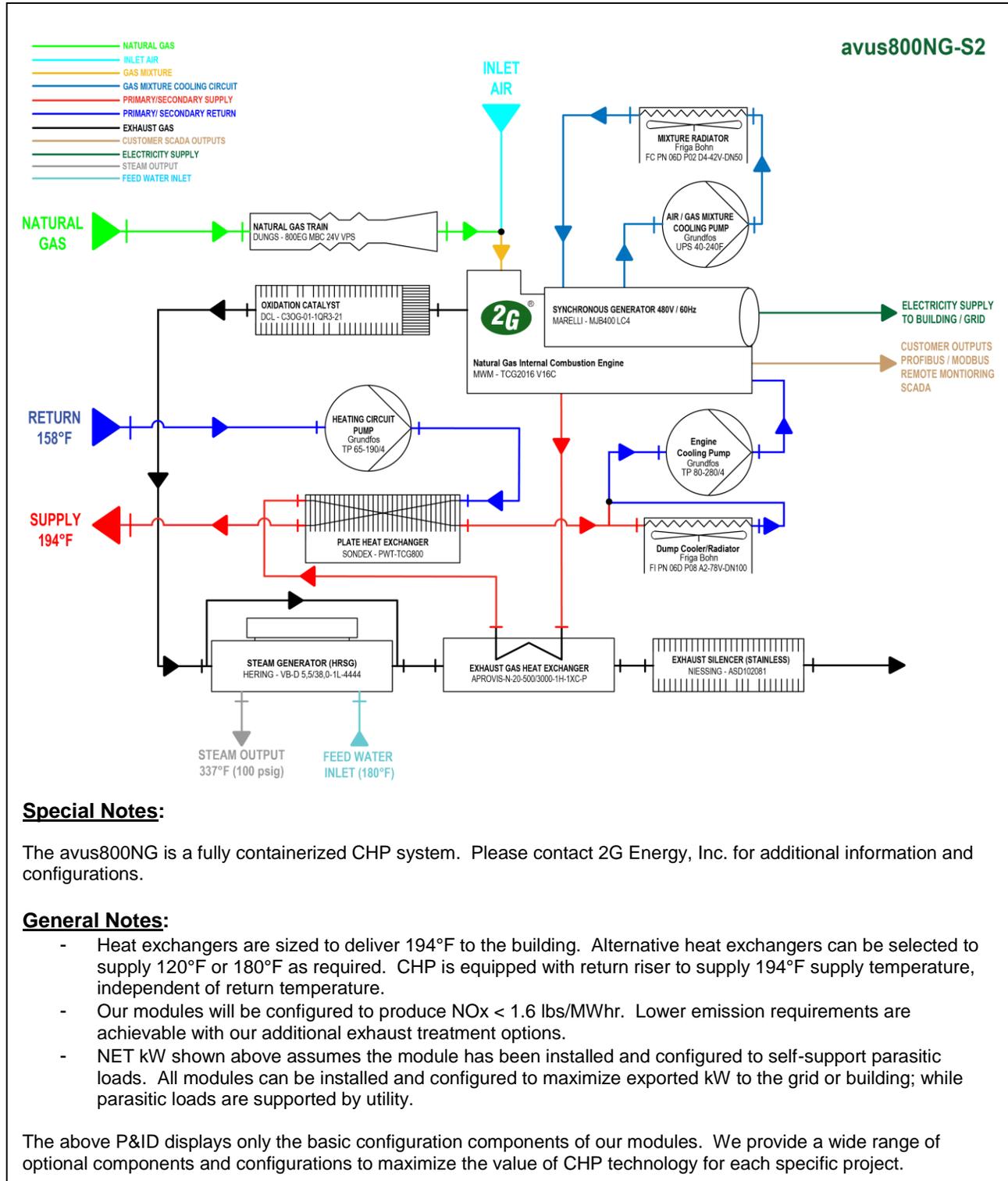
Vendor Statement

	<p>2G[®] is a global leader in manufacturing highly efficient CHP cogeneration power plants. Known for producing the world's most advanced and efficient cogeneration modules, and as per March 2016, having more than 5000 CHP's installed and operating, 2G[®] is specialized in modular energy conversion technologies. All cogeneration systems are designed and manufactured "connection ready", are fully factory tested and come as complete "Plug & Play" modules. This allows for an extremely fast and cost-effective installation, increases product reliability, and assures trouble-free operations. (Please watch our video located at www.2g-energy.com).</p> <p>*We offer fully containerized and inside building installations.</p> <p style="text-align: center;"><i>“Quality... is everything we do!”</i></p>
--	--

2G Energy, Inc.

avus800NG-S2

760kW





2G Energy, Inc.

avus1200NG

1200kW

Description

Type of prime mover	Number of prime mover units	Synchronous or Inverter	Type	Black-Start Capable	Qualification Status
RICE	1	Synchronous	CHP-HW	Yes	Conditionally qualified

Performance

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	Hot Water to Building @ 194°F			NOx lbs/MWh
					MBtu/h	Return °F	Net System Efficiency % (HHV)	
100%	59°F	10385	1171	38.5	4081	<172	77.8	1.6
	95°F	10385	1171	38.5	4081	<172	77.8	1.6
75%	59°F	8031	871	37.0	3265	<172	77.7	1.6
	95°F	8031	871	37.0	3265	<172	77.7	1.6
50%	59°F	5659	571	34.4	2412	<172	77.0	1.6
	95°F	5659	571	34.4	2412	<172	77.0	1.6

Notes: 1 – All performance data based on fuel energy content of 1067 Btu/CF HHV

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*	9'11"	39'5"	9'11"	Approx. 70,547
Core system based on minimum width*	9'11"	39'5"	9'11"	
Heat Rejection subsystem*	Included in container	Included in container	Included in container	Included in container
Largest part for delivery	9'11"	39'5"	9'11"	Approx. 70,547
Heaviest part for delivery	9'11"	39'5"	9'11"	Approx. 70,547

*Includes maintenance clearances. Complete system installed in a container.

Vendor Information

2G Energy, Inc.
 205 Commercial Drive
 St. Augustine, FL 32092
 (904) 579-3217
j.winfree@2-g.com
www.2g-energy.com

Vendor Statement



2G[®] is a global leader in manufacturing highly efficient CHP cogeneration power plants. Known for producing the world's most advanced and efficient cogeneration modules, and as per March 2016, having more than 5000 CHP's installed and operating, 2G[®] is specialized in modular energy conversion technologies. All cogeneration systems are designed and manufactured "connection ready", are fully factory tested and come as complete "Plug & Play" modules. This allows for an extremely fast and cost-effective installation, increases product reliability, and assures trouble-free operations. (Please watch our video located at www.2g-energy.com).

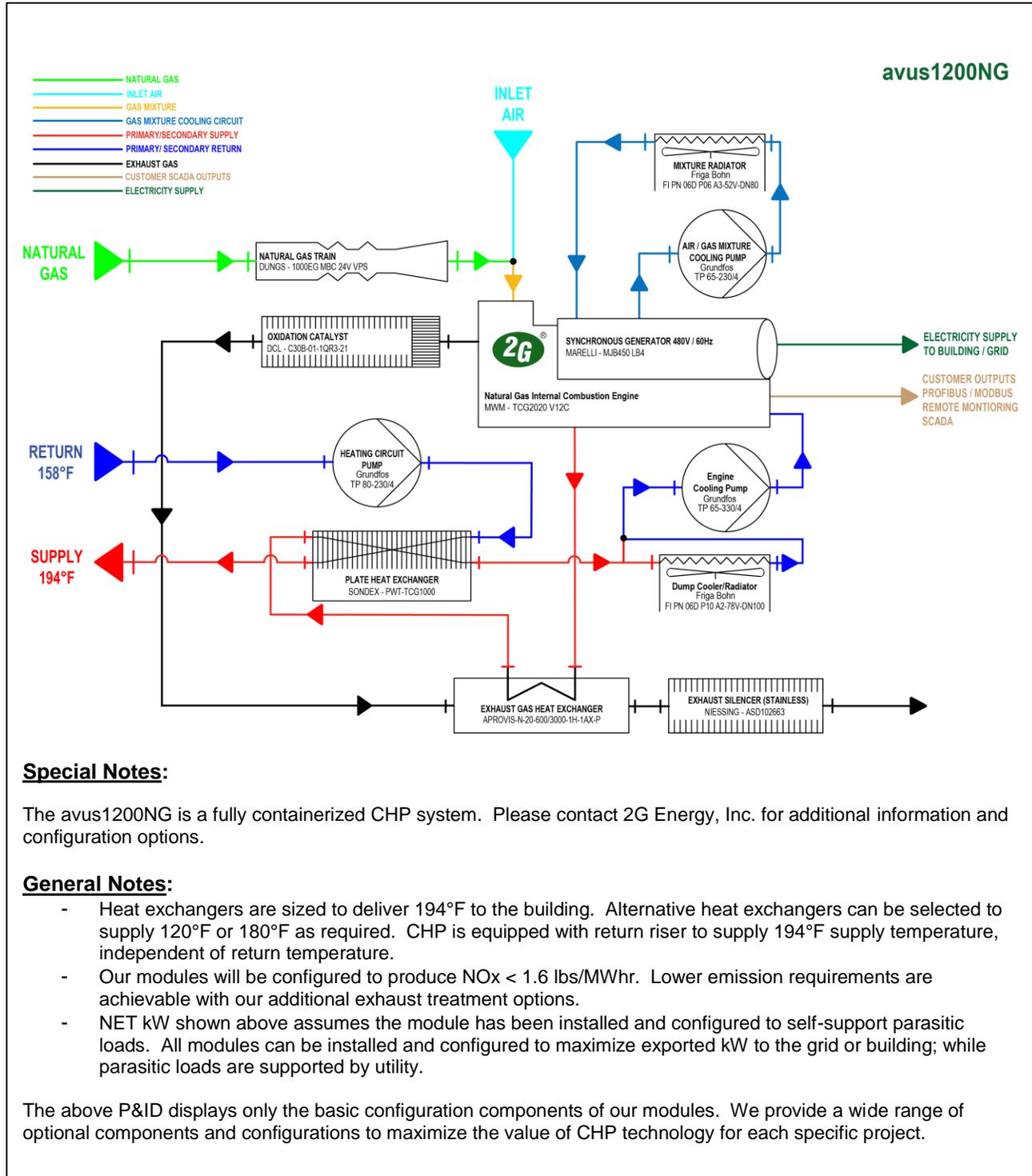
*We offer fully containerized and inside building installations.

“Quality... is everything we do!”

2G Energy, Inc.

avus1200NG

1200kW





2G Energy, Inc.

avus1200NG-S1

1200kW

Description

Type of prime mover	Number of prime mover units	Synchronous or Inverter	Type	Black-Start Capable	Qualification Status
RICE	1	Synchronous	CHP Steam	Yes	Conditionally qualified

Performance

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	Steam @ 10 psig			NOx lbs/MWh
					MBtu/h	Water Inlet Temperature °F	Net System Efficiency % (HHV)	
100%	59°F	10385	1171	38.5	4081	180	77.8	1.6
	95°F	10385	1171	38.5	4081	180	77.8	1.6
75%	59°F	8031	871	37.0	3265	180	77.7	1.6
	95°F	8031	871	37.0	3265	180	77.7	1.6
50%	59°F	5659	571	34.4	2412	180	77.0	1.6
	95°F	5659	571	34.4	2412	180	77.0	1.6

Notes: 1 – All performance data based on fuel energy content of 1067 Btu/CF HHV

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*	9'11"	39'5"	9'11"	Approx. 70,547
Core system based on minimum width*	9'11"	39'5"	9'11"	
Heat Rejection subsystem*	Included in container	Included in container	Included in container	Included in container
Largest part for delivery	9'11"	39'5"	9'11"	Approx. 70,547
Heaviest part for delivery	9'11"	39'5"	9'11"	Approx. 70,547

*Includes maintenance clearances.

Vendor Information

2G Energy, Inc. 205 Commercial Drive St. Augustine, FL 32092 (904) 579-3217 j.winfree@2-g.com www.2g-energy.com
--

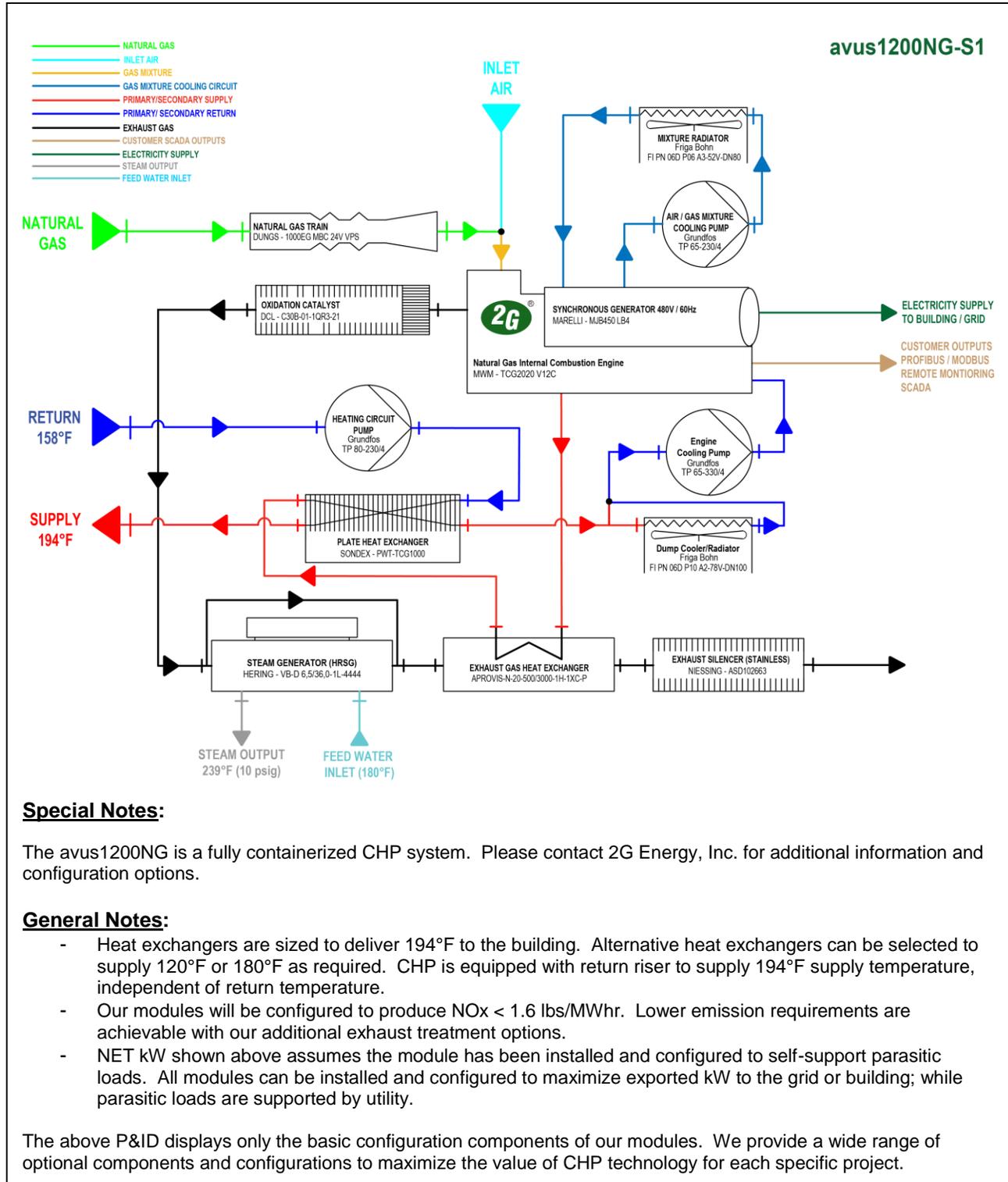
Vendor Statement

	<p>2G[®] is a global leader in manufacturing highly efficient CHP cogeneration power plants. Known for producing the world's most advanced and efficient cogeneration modules, and as per March 2016, having more than 5000 CHP's installed and operating, 2G[®] is specialized in modular energy conversion technologies. All cogeneration systems are designed and manufactured "connection ready", are fully factory tested and come as complete "Plug & Play" modules. This allows for an extremely fast and cost-effective installation, increases product reliability, and assures trouble-free operations. (Please watch our video located at www.2g-energy.com).</p> <p>*We offer fully containerized and inside building installations.</p> <p style="text-align: center;"><i>“Quality... is everything we do!”</i></p>
--	--

2G Energy, Inc.

avus1200NG-S1

1200kW





2G Energy, Inc.

avus1200NG-S2

1200kW

Description

Type of prime mover	Number of prime mover units	Synchronous or Inverter	Type	Black-Start Capable	Qualification Status
RICE	1	Synchronous	CHP Steam	Yes	Conditionally qualified

Performance

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	Steam @ 100 psig			NOx lbs/MWh
					MBtu/h	Water Inlet Temperature °F	Net System Efficiency % (HHV)	
100%	59°F	10385	1171	38.5	4081	180	77.8	1.6
	95°F	10385	1171	38.5	4081	180	77.8	1.6
75%	59°F	8031	871	37.0	3265	180	77.7	1.6
	95°F	8031	871	37.0	3265	180	77.7	1.6
50%	59°F	5659	571	34.4	2412	180	77.0	1.6
	95°F	5659	571	34.4	2412	180	77.0	1.6

Notes: 1 – All performance data based on fuel energy content of 1067 Btu/CF HHV

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*	9'11"	39'5"	9'11"	Approx. 70,547
Core system based on minimum width*	9'11"	39'5"	9'11"	
Heat Rejection subsystem*	Included in container	Included in container	Included in container	Included in container
Largest part for delivery	9'11"	39'5"	9'11"	Approx. 70,547
Heaviest part for delivery	9'11"	39'5"	9'11"	Approx. 70,547

*Includes maintenance clearances.

Vendor Information

2G Energy, Inc. 205 Commercial Drive St. Augustine, FL 32092 (904) 579-3217 j.winfree@2-g.com www.2g-energy.com
--

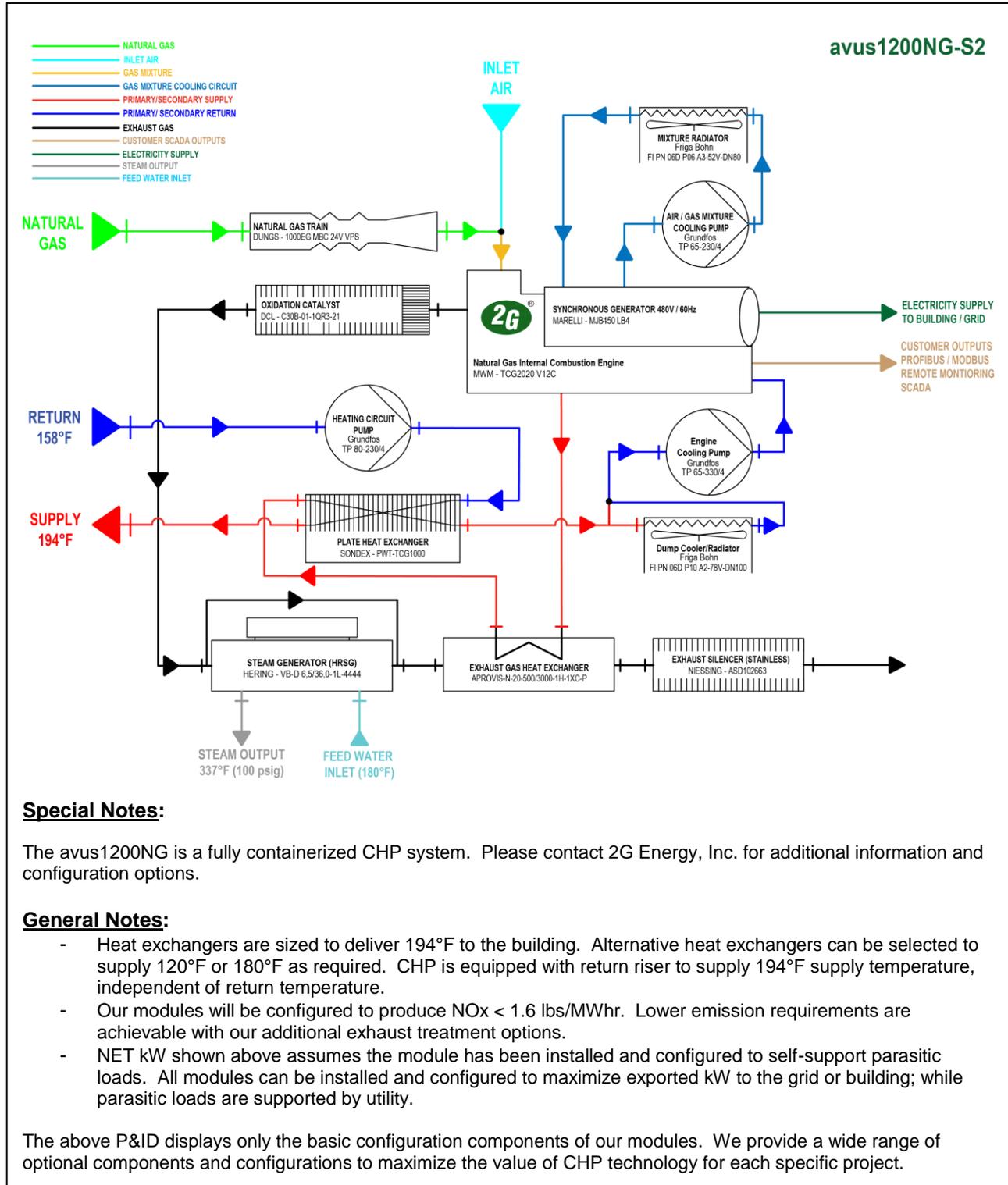
Vendor Statement

	<p>2G[®] is a global leader in manufacturing highly efficient CHP cogeneration power plants. Known for producing the world's most advanced and efficient cogeneration modules, and as per March 2016, having more than 5000 CHP's installed and operating, 2G[®] is specialized in modular energy conversion technologies. All cogeneration systems are designed and manufactured "connection ready", are fully factory tested and come as complete "Plug & Play" modules. This allows for an extremely fast and cost-effective installation, increases product reliability, and assures trouble-free operations. (Please watch our video located at www.2g-energy.com).</p> <p>*We offer fully containerized and inside building installations.</p> <p style="text-align: center;"><i>“Quality... is everything we do!”</i></p>
---	--

2G Energy, Inc.

avus1200NG-S2

1200kW





2G Energy, Inc.

avus1500NG

1560kW

Description

Type of prime mover	Number of prime mover units	Synchronous or Inverter	Type	Black-Start Capable	Qualification Status
RICE	1	Synchronous	CHP-HW	Yes	Conditionally qualified

Performance

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	Hot Water to Building @ 180°F			NOx lbs/MWh
					MBtu/h	Return °F	Net System Efficiency % (HHV)	
100%	59°F	13628	1528	38.3	5422	<172	78.0	1.6
	95°F	13628	1528	38.3	5422	<172	78.0	1.6
75%	59°F	10532	1139	36.9	4299	<172	77.7	1.6
	95°F	10532	1139	36.9	4299	<172	77.7	1.6
50%	59°F	7420	749	34.4	3187	<172	77.4	1.6
	95°F	7420	749	34.4	3187	<172	77.4	1.6

Notes: 1 – All performance data based on fuel energy content of 1067 Btu/CF HHV

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*	9'11"	49'3"	9'11"	76,047
Core system based on minimum width*	9'11"	49'3"	9'11"	
Heat Rejection subsystem*	Included in container	Included in container	Included in container	Included in container
Largest part for delivery	9'11"	49'3"	9'11"	76,047
Heaviest part for delivery	9'11"	49'3"	9'11"	76,047

*Includes maintenance clearances.

Vendor Information

2G Energy, Inc. 205 Commercial Drive St. Augustine, FL 32092 (904) 579-3217 j.winfree@2-g.com www.2g-energy.com
--

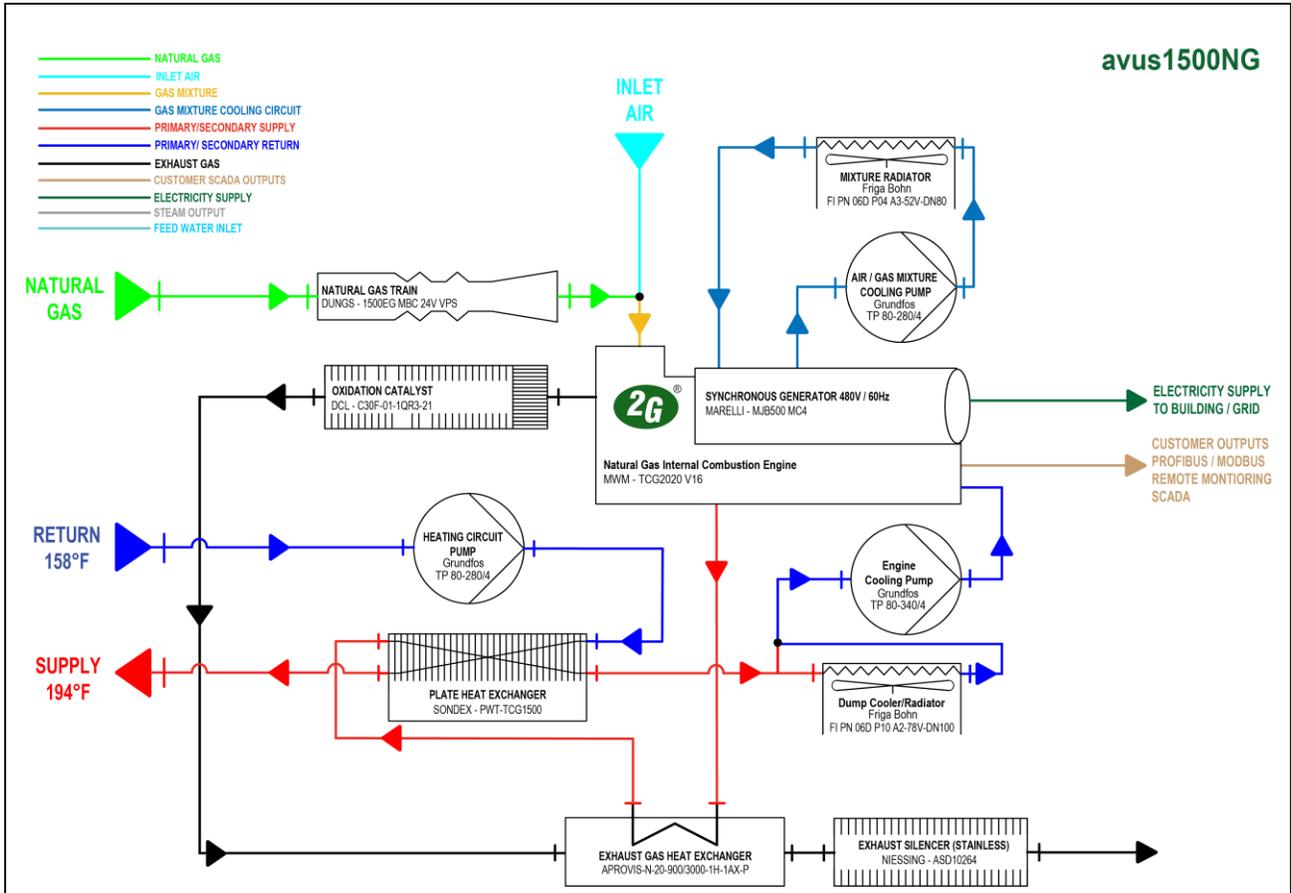
Vendor Statement

	2G [®] is a global leader in manufacturing highly efficient CHP cogeneration power plants. Known for producing the world's most advanced and efficient cogeneration modules, and as per March 2016, having more than 5000 CHP's installed and operating, 2G [®] is specialized in modular energy conversion technologies. All cogeneration systems are designed and manufactured "connection ready", are fully factory tested and come as complete "Plug & Play" modules. This allows for an extremely fast and cost-effective installation, increases product reliability, and assures trouble-free operations. (Please watch our video located at www.2g-energy.com).
	*We offer fully containerized and inside building installations.
	<p><i>“Quality... is everything we do!”</i></p>

2G Energy, Inc.

avus1500NG

1560kW



Special Notes:

The avus1500NG is a fully containerized CHP system. Please contact 2G Energy, Inc. for additional information and configuration options.

General Notes:

- Heat exchangers are sized to deliver 194°F to the building. Alternative heat exchangers can be selected to supply 120°F or 180°F as required. CHP is equipped with return riser to supply 194°F supply temperature, independent of return temperature.
- Our modules will be configured to produce NO_x < 1.6 lbs/MW_{hr}. Lower emission requirements are achievable with our additional exhaust treatment options.
- NET kW shown above assumes the module has been installed and configured to self-support parasitic loads. All modules can be installed and configured to maximize exported kW to the grid or building; while parasitic loads are supported by utility.

The above P&ID displays only the basic configuration components of our modules. We provide a wide range of optional components and configurations to maximize the value of CHP technology for each specific project.



2G Energy, Inc.

avus2000NG

2000kW

Description

Type of prime mover	Number of prime mover units	Synchronous or Inverter	Type	Black-Start Capable	Qualification Status
RICE	1	Synchronous	CHP-HW	Yes	Conditionally qualified

Performance

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	Hot Water to Building @ 194°F			NOx lbs/MWh
					MBtu/h	Return °F	Net System Efficiency % (HHV)	
100%	59°F	17310	1965	38.7	6794	<172	78.0	1.6
	95°F	17310	1965	38.7	6794	<172	78.0	1.6
75%	59°F	13418	1465	37.3	5418	<172	77.6	1.6
	95°F	13418	1465	37.3	5418	<172	77.6	1.6
50%	59°F	9488	965	34.7	4006	<172	76.9	1.6
	95°F	9488	965	34.7	4006	<172	76.9	1.6

Notes: 1 – All performance data based on fuel energy content of 1067 Btu/CF HHV

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*	9'11"	49'3"	9'11"	90,046
Core system based on minimum width*	9'11"	49'3"	9'11"	
Heat Rejection subsystem*	Included in container	Included in container	Included in container	Included in container
Largest part for delivery	9'11"	49'3"	9'11"	90,046
Heaviest part for delivery	9'11"	49'3"	9'11"	90,046

*Includes maintenance clearances.

Vendor Information

2G Energy, Inc. 205 Commercial Drive St. Augustine, FL 32092 (904) 579-3217 j.winfree@2-g.com www.2g-energy.com
--

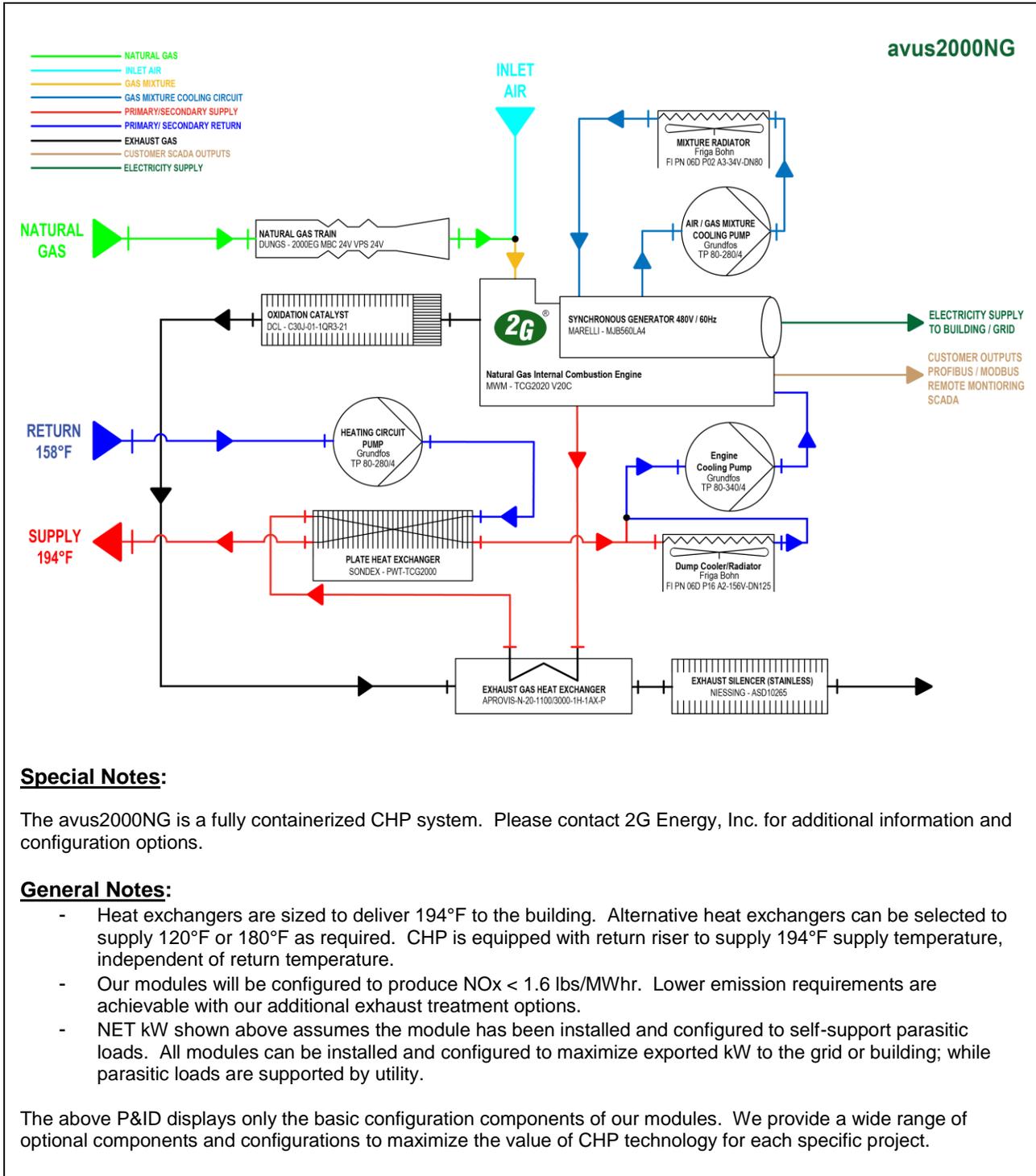
Vendor Statement

	<p>2G[®] is a global leader in manufacturing highly efficient CHP cogeneration power plants. Known for producing the world's most advanced and efficient cogeneration modules, and as per March 2016, having more than 5000 CHP's installed and operating, 2G[®] is specialized in modular energy conversion technologies. All cogeneration systems are designed and manufactured "connection ready", are fully factory tested and come as complete "Plug & Play" modules. This allows for an extremely fast and cost-effective installation, increases product reliability, and assures trouble-free operations. (Please watch our video located at www.2g-energy.com).</p> <p>*We offer fully containerized and inside building installations.</p> <p style="text-align: center;"><i>“Quality... is everything we do!”</i></p>
---	--

2G Energy, Inc.

avus2000NG

2000kW





Aegis Energy Services, Inc.

Yanmar CP35D1(Z)-TNUG

35kW

Description

Type of prime mover	Number of prime mover units	Synchronous, Inverter or Induction	Type	Black-Start Capable	Qualification Status
Rice	1	Inverter	CHP-HW	Yes	Conditionally qualified

Performance

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	Hot Water to Building @ 180°F			NOx lbs/MWh
					MBtu/h	Return °F	Net System Efficiency % (HHV)	
100%	59°F	408.24	34.3	25.2%	204.12	167	78.6%	0.049
	95°F	408.24	34.3	25.2%	204.12	167	78.6%	0.049
75%	59°F	330.12	25.6	24.1%	167.76	167	77.3%	0.044
	95°F	330.12	25.6	24.1%	167.76	167	77.3%	0.044
50%	59°F	250.56	16.8	20.6%	132.84	167	75.9%	0.051
	95°F	250.56	16.8	20.6%	132.84	167	75.9%	0.051

Notes: 1 – All performance data based on fuel energy content of 1150 Btu/CF HHV

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*		7.2FT	8.2FT	3,196
Core system based on minimum width*		7.2FT	8.2FT	
Heat Rejection subsystem*	Integrated Within System			
Largest part for delivery		7.2FT	8.2FT	3,196
Heaviest part for delivery		7.2FT	8.2FT	3,196

*Includes maintenance clearances.

Vendor Information

Aegis Energy Services, Inc. 55 Jackson St. Holyoke, MA 01040 (413)536-1156 LeeV@aegisenergyservices.com www.aesigenergyservices.com

Vendor Statement



The Leader in Combined Heat & Power since 1985

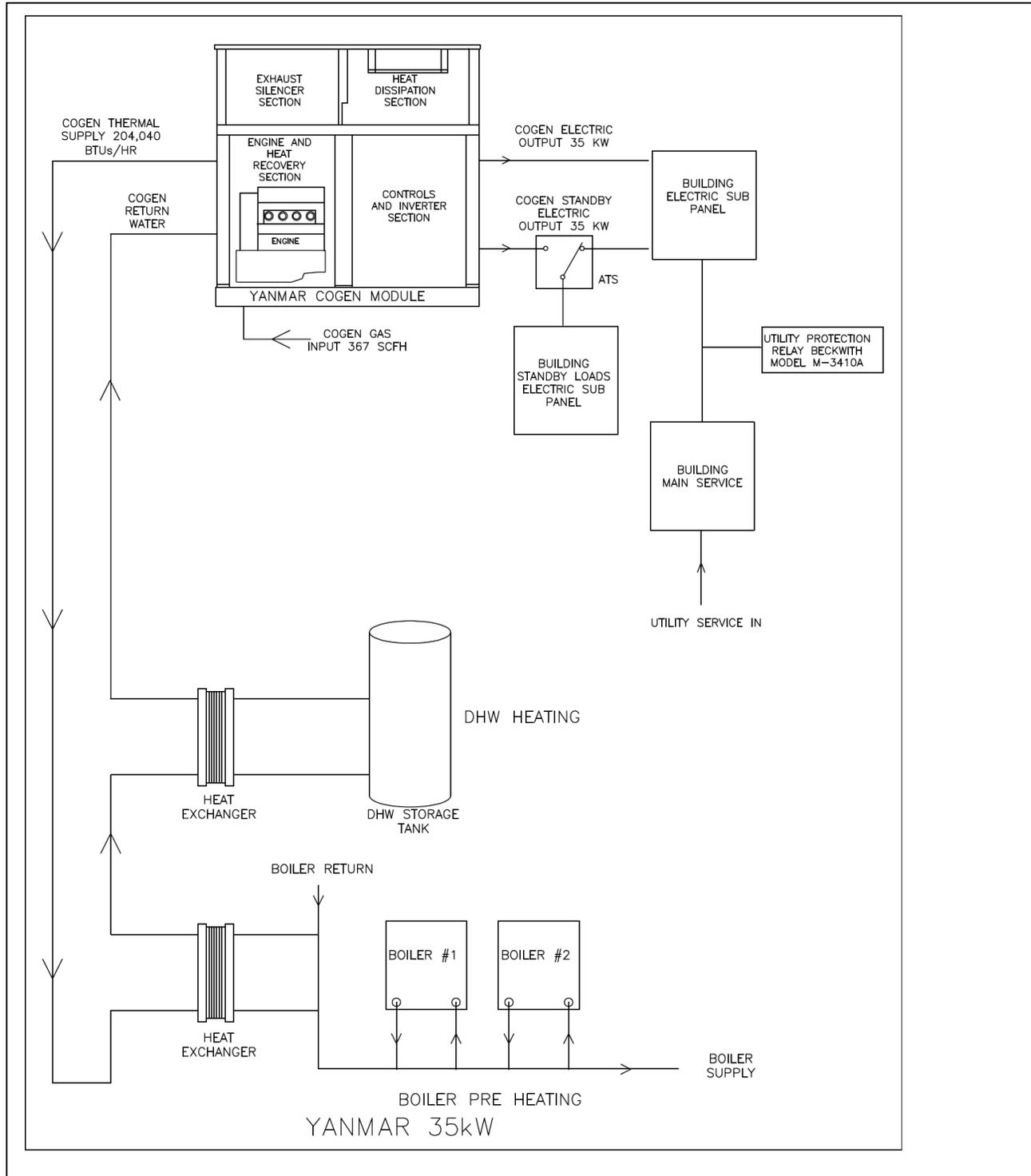

Made in the USA

**Reducing Energy Costs with Onsite
Combined Heat and Power**

Aegis Energy Services, Inc.

Yanmar CP35D1(Z)-TNUG

35kW





Aegis Energy Services, Inc.

Aegen PowerSync 75

75 kW

Description

Type of prime mover	Number of prime mover units	Synchronous or Inverter	Type	Black-Stare Capable	Qualification Status
RICE	1	Synchronous	CHP-HW	Yes	Pre-qualified

Performance

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	Hot Water to Building @ 180°F			NOx lbs/MWh
					MBtu/h	Return °F	Net System Efficiency % (HHV)	
100%	59°F	948.6	73.0	26.2%	523	170	81.4%	0.177
	95°F	948.6	73.0	26.2%	523	170	81.4%	0.177
75%	59°F	718.1	54.3	25.8%	397	170	81.1%	0.037
	95°F	718.1	54.3	25.8%	397	170	81.1%	0.037
40%	59°F	477.4	28.0	20.0%	277	170	78.0%	0.050
	95°F	477.4	28.0	20.0%	277	170	78.0%	0.050

Notes: 1 – All performance data based on fuel energy content of 1020 Btu/CF HHV

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*	8FT	13FT	4FT	3,050
Core system based on minimum width*	8FT	13FT	4FT	
Heat Rejection subsystem*	4.5FT	4.5FT	5FT	750
Largest part for delivery	2.67FT	2.67FT	2.5FT	850
Heaviest part for delivery	2.67FT	2.67FT	2.5FT	850

*Includes maintenance clearances.

Vendor Statement



The Leader in Combined Heat & Power since 1985


Made in the USA

Reducing Energy Costs with Onsite Combined Heat and Power

Vendor Information

Aegis Energy Services, Inc. 55 Jackson St. Holyoke, MA 01040 (413) 536-1156 LeeV@aegisenergyservices.com www.aegisenergyservices.com



Aegis Energy Services, Inc.

Aegen PowerVerter 75

75 kW

Description

Type of prime mover	Number of prime mover units	Synchronous or Inverter	Type	Black-Start Capable	Qualification Status
RICE	1	Inverter	CHP-HW	Yes	Pre-qualified

Performance

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	Hot Water to Building @ 180°F			NOx lbs/MWh
					MBtu/h	Return °F	Net System Efficiency % (HHV)	
100%	59°F	948.6	67.1	24.1%	523	170	79.3%	0.177
	95°F	948.6	67.1	24.1%	523	170	79.3%	0.177
75%	59°F	718.1	48.4	23.0%	397	170	78.3%	0.037
	95°F	718.1	48.4	23.0%	397	170	78.3%	0.037
40%	59°F	477.4	22.1	15.8%	277	170	73.8%	0.050
	95°F	477.4	22.1	15.8%	277	170	73.8%	0.050

Notes: 1 – All performance data based on fuel energy content of 1020 Btu/CF HHV

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*	8FT	18FT	8.5FT	4,250
Core system based on minimum width*	8FT	18FT	8.5FT	
Heat Rejection subsystem*	4.5FT	4.5FT	5FT	750
Largest part for delivery	2FT	5.25FT	8.5FT	1,200
Heaviest part for delivery	2FT	5.25FT	8.5FT	1,200

*Includes maintenance clearances.

Vendor Statement



The Leader in Combined Heat & Power since 1985


Made in the USA

Reducing Energy Costs with Onsite Combined Heat and Power

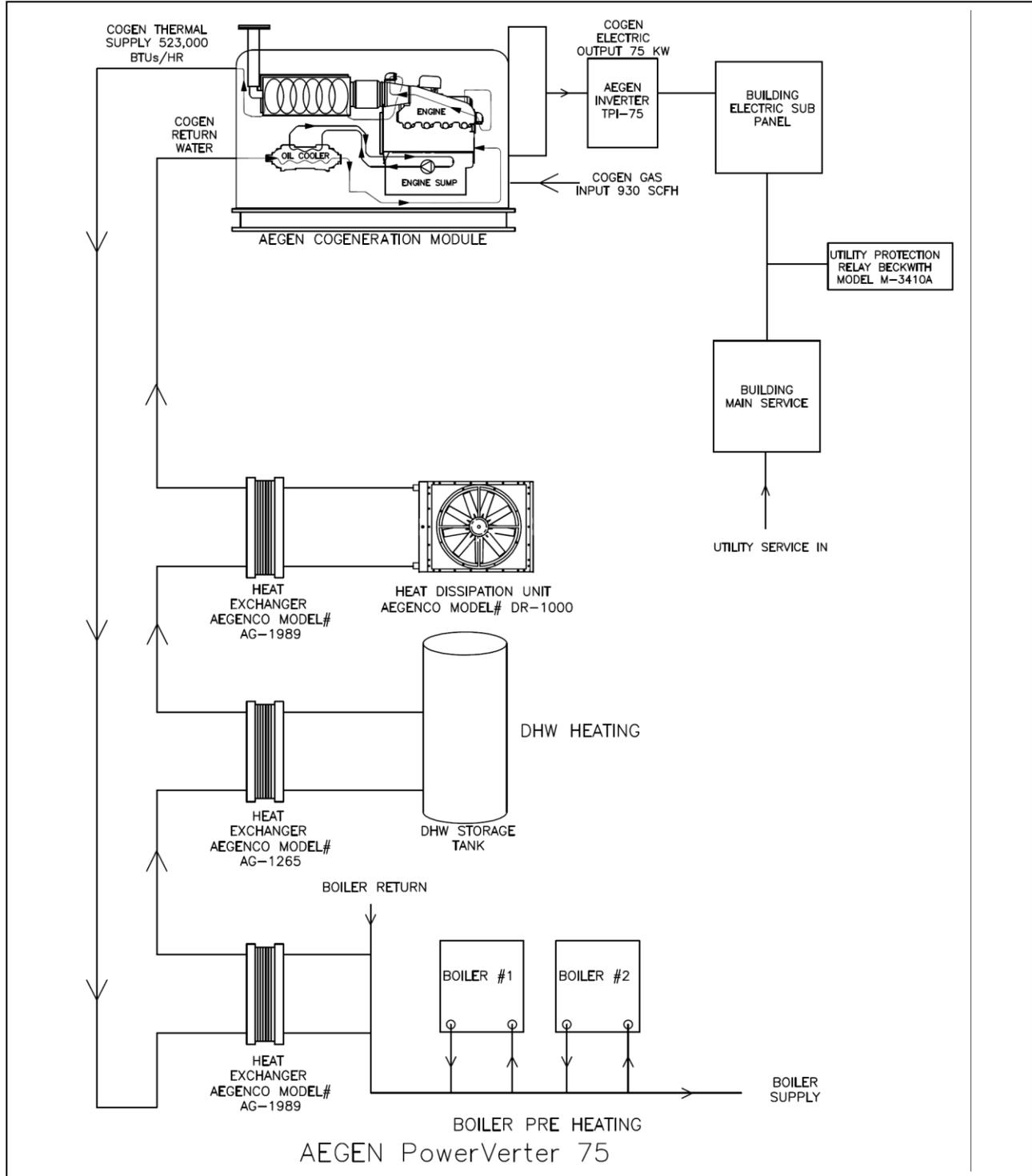
Vendor Information

Aegis Energy Services, Inc. 55 Jackson St. Holyoke, MA 01040 (413) 536-1156 LeeV@aegisenergyservices.com www.aegisenergyservices.com

Aegis Energy Services, Inc.

Aegen PowerVerter 75

75 kW





Aegis Energy Services, Inc.

Aegen PowerVerter 100

100kW

Description

Type of prime mover	Number of prime mover units	Synchronous, Inverter or Induction	Type	Black-Start Capable	Qualification Status
Rice	1	Inverter	CHP-HW	Yes	Conditionally qualified

Performance

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	Hot Water to Building @ 180°F			NOx lbs/MWh
					MBtu/h	Return °F	Net System Efficiency % (HHV)	
100%	59°F	1244.4	92.0	25.2%	643.2	170	76.9%	0.256
	95°F	1244.4	92.0	25.2%	643.2	170	76.9%	0.256
75%	59°F	948.6	67.0	24.1%	523	170	79.2%	0.177
	95°F	948.6	67.0	24.1%	523	170	79.2%	0.177
45%	59°F	612.0	37.0	20.6%	351.0	170	78.0%	0.050
	95°F	612.0	37.0	20.6%	351.0	170	78.0%	0.050

Notes: 1 – All performance data based on fuel energy content of 1020 Btu/CF HHV

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*	8FT	18FT	8.5FT	4,250
Core system based on minimum width*	8FT	18FT	8.5FT	
Heat Rejection subsystem*	4.5FT	4.5FT	5FT	750
Largest part for delivery	2FT	5.25FT	8.5FT	1,200
Heaviest part for delivery	2FT	5.25FT	8.5FT	1,200

*Includes maintenance clearances.

Vendor Information

Aegis Energy Services, Inc. 55 Jackson St. Holyoke, MA 01040 (413)536-1156 LeeV@aegisenergyservices.com www.aesenergyservices.com

Vendor Statement



The Leader in Combined Heat & Power since 1985

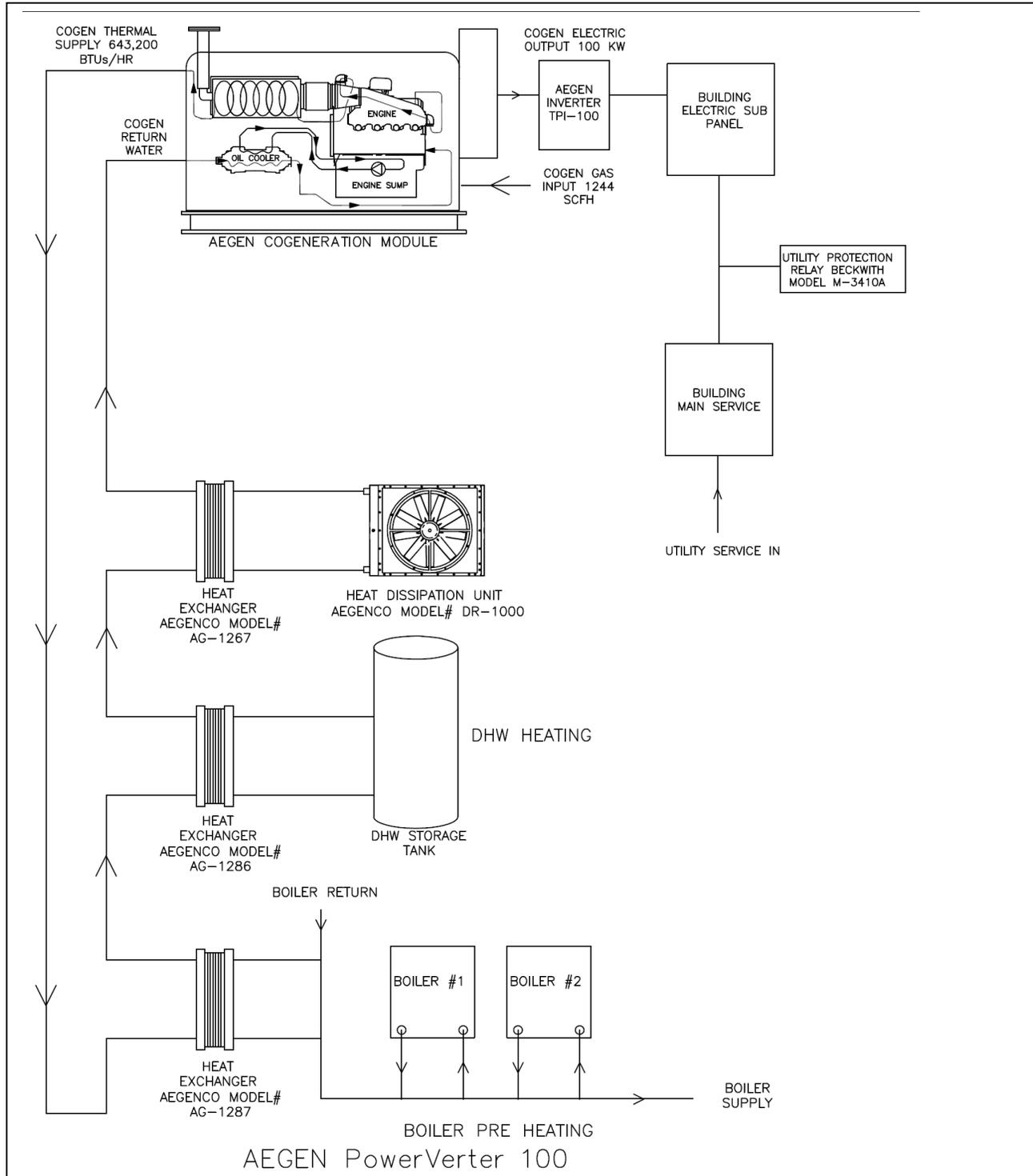

Made in the USA

Reducing Energy Costs with Onsite Combined Heat and Power

Aegis Energy Services, Inc.

Aegen PowerVerter 100

100kW





Aegis Energy Services, Inc.

Aegen PowerSync 150

150 kW

Description

Type of prime mover	Number of prime mover units	Synchronous or Inverter	Type	Black-Start Capable	Qualification Status
RICE	2	Synchronous	CHP-HW	Yes	Pre-qualified

Performance

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	Hot Water to Building @ 180°F			NOx lbs/MWh
					MBtu/h	Return °F	Net System Efficiency % (HHV)	
100%	59°F	1897.2	143.5	25.8%	1046.0	170	81.0%	0.177
	95°F	1897.2	143.5	25.8%	1046.0	170	81.0%	0.177
75%	59°F	1436.2	106.0	25.2%	794.0	170	80.5%	0.037
	95°F	1436.2	106.0	25.2%	794.0	170	80.5%	0.037
30%	59°F	612.0	38.5	21.5%	351.0	170	78.8%	0.050
	95°F	612.0	38.5	21.5%	351.0	170	78.8%	0.050

Notes: 1 – All performance data based on fuel energy content of 1020 Btu/CF HHV

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*	16FT	13FT	4FT	6,100
Core system based on minimum width*	8FT	26FT	4FT	
Heat Rejection subsystem*	4.5FT	9FT	5FT	1,400
Largest part for delivery	2.67FT	2.67FT	2.5FT	850
Heaviest part for delivery	2.67FT	2.67FT	2.5FT	850

*Includes maintenance clearances.

Vendor Statement



The Leader in Combined Heat & Power since 1985

 Made in the USA

Reducing Energy Costs with Onsite Combined Heat and Power

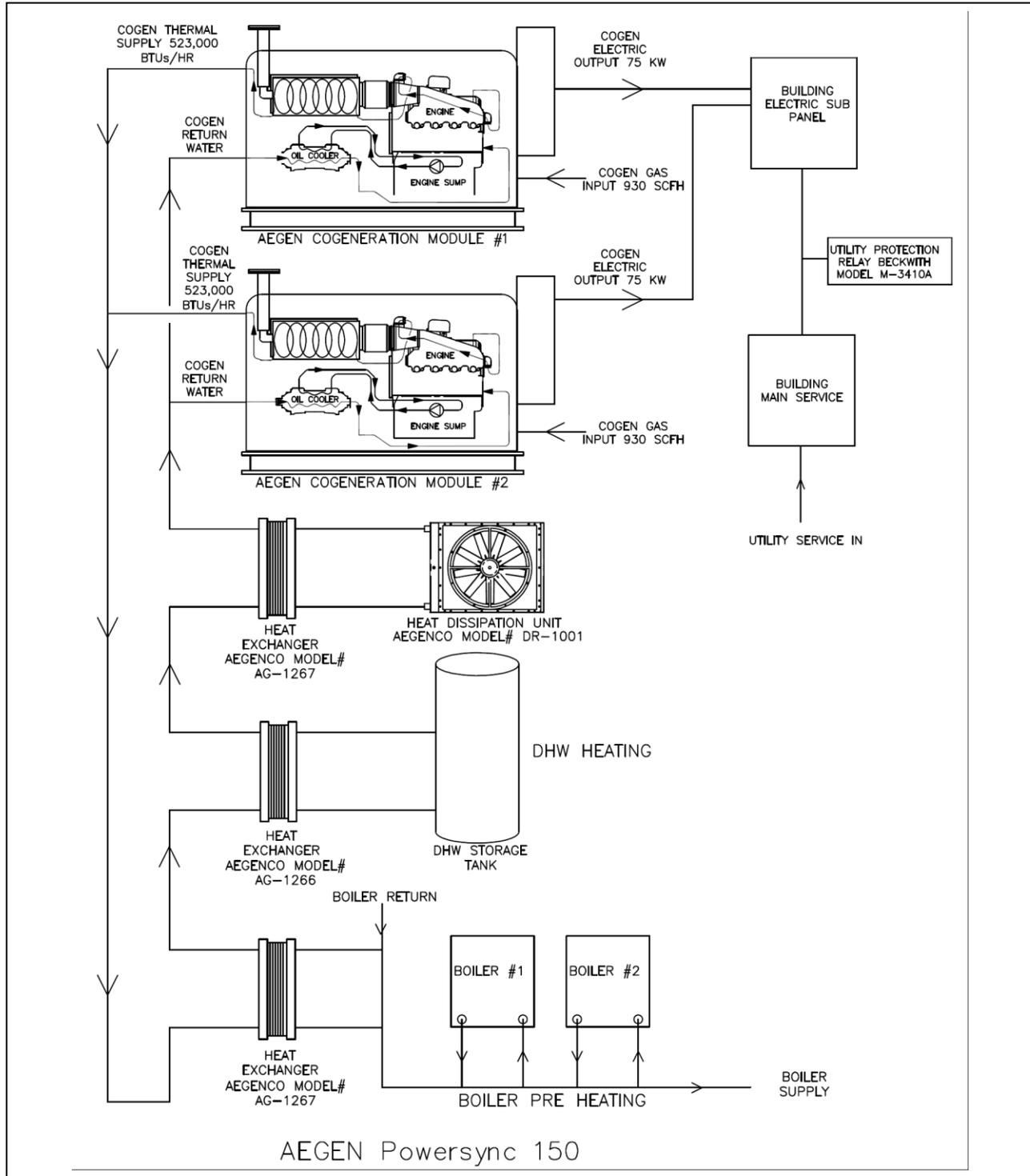
Vendor Information

Aegis Energy Services, Inc. 55 Jackson St. Holyoke, MA 01040 (413) 536-1156 LeeV@aegisenergyservices.com www.aegisenergyservices.com

Aegis Energy Services, Inc.

Aegen PowerSync 150

150 kW





Aegis Energy Services, Inc.

Aegen PowerVerter 150

150 kW

Description

Type of prime mover	Number of prime mover units	Synchronous or Inverter	Type	Black-Start Capable	Qualification Status
RICE	2	Inverter	CHP-HW	Yes	Pre-qualified

Performance

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	Hot Water to Building @ 180°F			NOx lbs/MWh
					MBtu/h	Return °F	Net System Efficiency % (HHV)	
100%	59°F	1897.2	131.8	23.7%	1046.0	170	78.8%	0.177
	95°F	1897.2	131.8	23.7%	1046.0	170	78.8%	0.177
75%	59°F	1436.2	94.3	22.4%	794.0	170	77.7%	0.037
	95°F	1436.2	94.3	22.4%	794.0	170	77.7%	0.037
30%	59°F	612.0	32.7	18.2%	351.0	170	75.6%	0.050
	95°F	612.0	32.7	18.2%	351.0	170	75.6%	0.050

Notes: 1 – All performance data based on fuel energy content of 1020 Btu/CF HHV

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*	13FT	21FT	8.5FT	8,500
Core system based on minimum width*	8FT	36FT	8.5FT	
Heat Rejection subsystem*	4.5FT	9FT	4.5FT	1,400
Largest part for delivery	2FT	5.25FT	8.5FT	1,200
Heaviest part for delivery	2FT	5.25FT	8.5FT	1,200

*Includes maintenance clearances.

Vendor Statement



The Leader in Combined Heat & Power since 1985


Made in the USA

Reducing Energy Costs with Onsite Combined Heat and Power

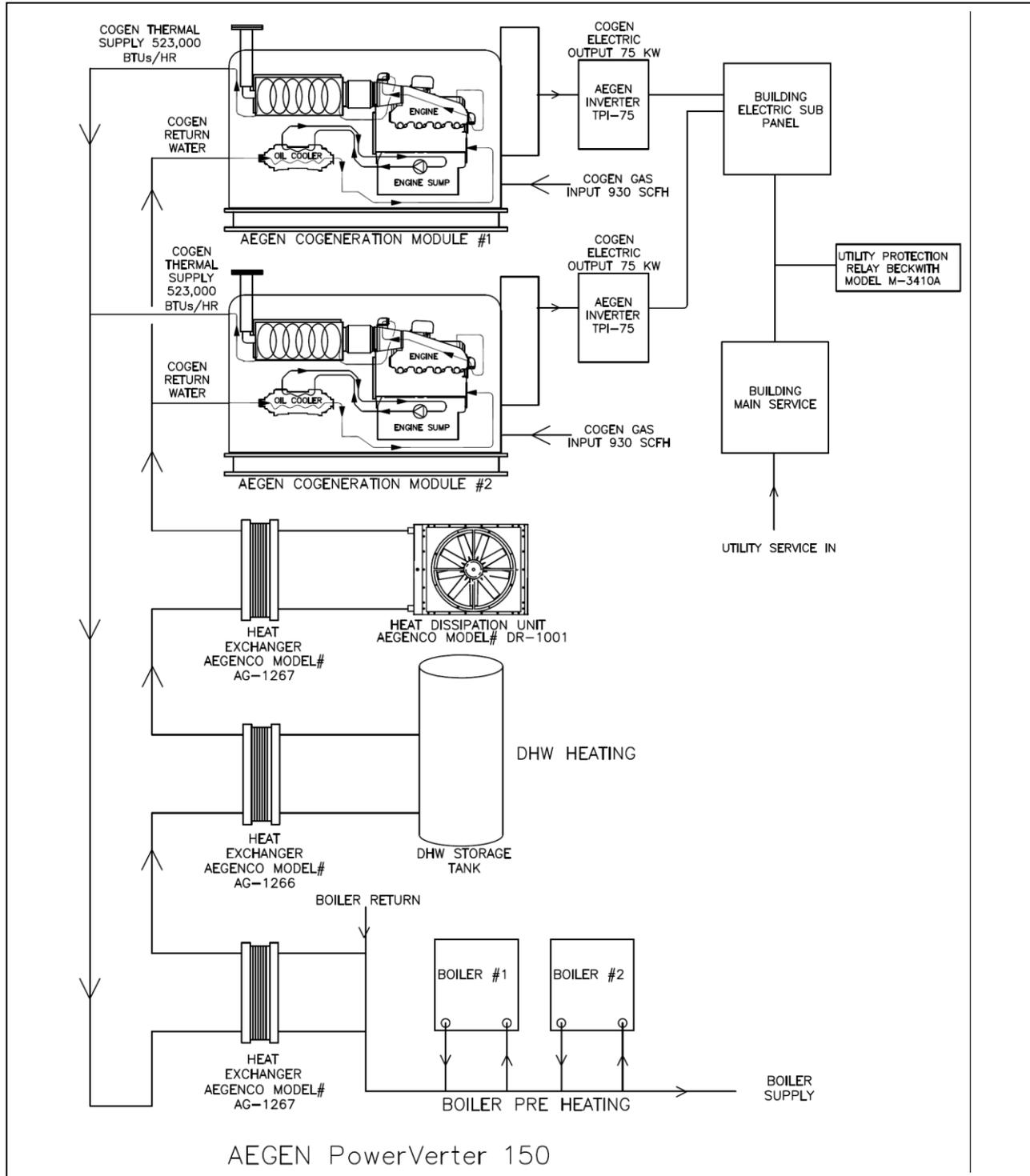
Vendor Information

Aegis Energy Services, Inc. 55 Jackson St. Holyoke, MA 01040 (413) 536-1156 LeeV@aegisenergyservices.com www.aegisenergyservices.com

Aegis Energy Services, Inc.

Aegen PowerVerter 150

150 kW





NYSERDA



Aegis Energy Services, Inc.

Aegen PowerVerter 200

200kW

Description

Type of prime mover	Number of prime mover units	Synchronous or Inverter	Type	Black-Start Capable	Qualification Status
Rice	2	Inverter	CHP-HW	Yes	Conditionally qualified

NYSERDA Incentives

Downstate	Upstate

Performance

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	Hot Water to Building @ 180°F			NOx lbs/MWh
					MBtu/h	Return °F	Net System Efficiency % (HHV)	
100%	59°F	2488.8	180.7	24.8%	1286.4	170	76.5%	0.256
	95°F	2488.8	180.7	24.8%	1286.4	170	76.5%	0.256
75%	59°F	1897.2	130.7	23.5%	1046	170	78.6%	0.177
	95°F	1897.2	130.7	23.5%	1046	170	78.6%	0.177
22.5%	59°F	612.0	31.6	17.6%	351.0	170	75.0%	0.050
	95°F	612.0	31.6	17.6%	351.0	170	75.0%	0.050

Notes: 1 – All performance data based on fuel energy content of 1020 Btu/CF HHV

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*	13FT	21FT	8.5FT	8,500
Core system based on minimum width*	8FT	36FT	8.5FT	
Heat Rejection subsystem*	4.5FT	9FT	4.5FT	1,400
Largest part for delivery	2FT	5.25FT	8.5FT	1,200
Heaviest part for delivery	2FT	5.25FT	8.5FT	1,200

*Includes maintenance clearances.

Vendor Statement



The Leader in Combined Heat & Power since 1985


Made in the USA

**Reducing Energy Costs with Onsite
Combined Heat and Power**

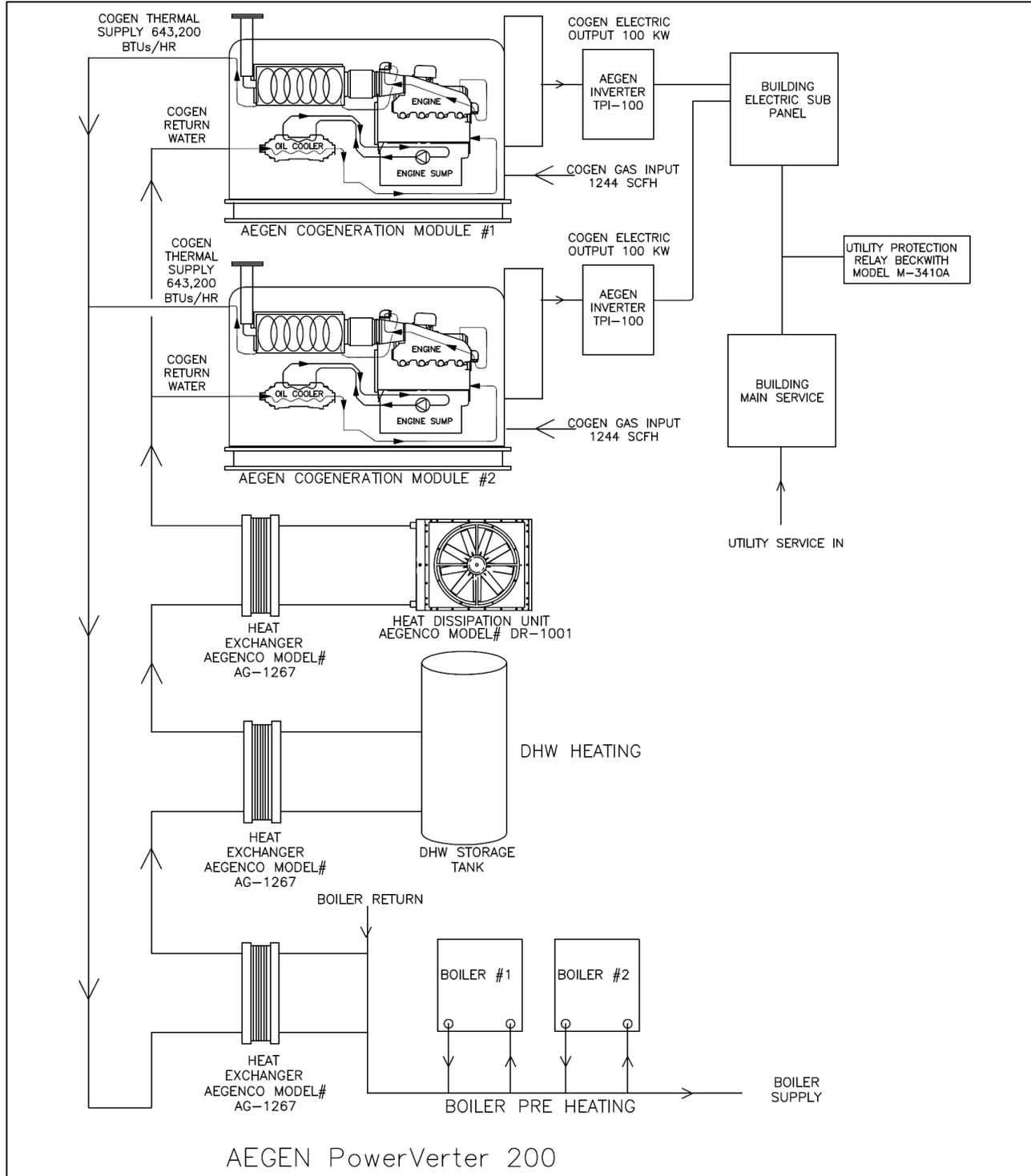
Vendor Information

Aegis Energy Services, Inc. 55 Jackson St. Holyoke, MA 01040 (413) 536-1156 LeeV@aegisenergyservices.com www.aegisenergyservices.com
--

Aegis Energy Services, Inc.

Aegen PowerVerter 200

200kW





Aegis Energy Services, Inc.

Aegen PowerSync 225

225 kW

Description

Type of prime mover	Number of prime mover units	Synchronous or Inverter	Type	Black-Start Capable	Qualification Status
RICE	3	Synchronous	CHP-HW	Yes	Pre-qualified

Performance

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	Hot Water to Building @ 180°F			NOx lbs/MWh
					MBtu/h	Return °F	Net System Efficiency % (HHV)	
100%	59°F	2845.8	215.9	25.9%	1569.0	170	81.0%	0.177
	95°F	2845.8	215.9	25.9%	1569.0	170	81.0%	0.177
75%	59°F	2154.3	159.6	25.3%	1191.0	170	80.6%	0.037
	95°F	2154.3	159.6	25.3%	1191.0	170	80.6%	0.037
20%	59°F	612.0	35.9	20.0%	351	170	77.4%	0.050
	95°F	612.0	35.9	20.0%	351	170	77.4%	0.050

Notes: 1 – All performance data based on fuel energy content of 1020 Btu/CF HHV

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*	24FT	13FT	4FT	9,150
Core system based on minimum width*	8FT	39FT	4FT	
Heat Rejection subsystem*	4.5FT	13.5FT	5FT	2,100
Largest part for delivery	2.67FT	2.67FT	2.5FT	850
Heaviest part for delivery	2.67FT	2.67FT	2.5FT	850

* Includes maintenance clearances.

Vendor Statement



The Leader in Combined Heat & Power since 1985


 Made in the USA

Reducing Energy Costs with Onsite Combined Heat and Power

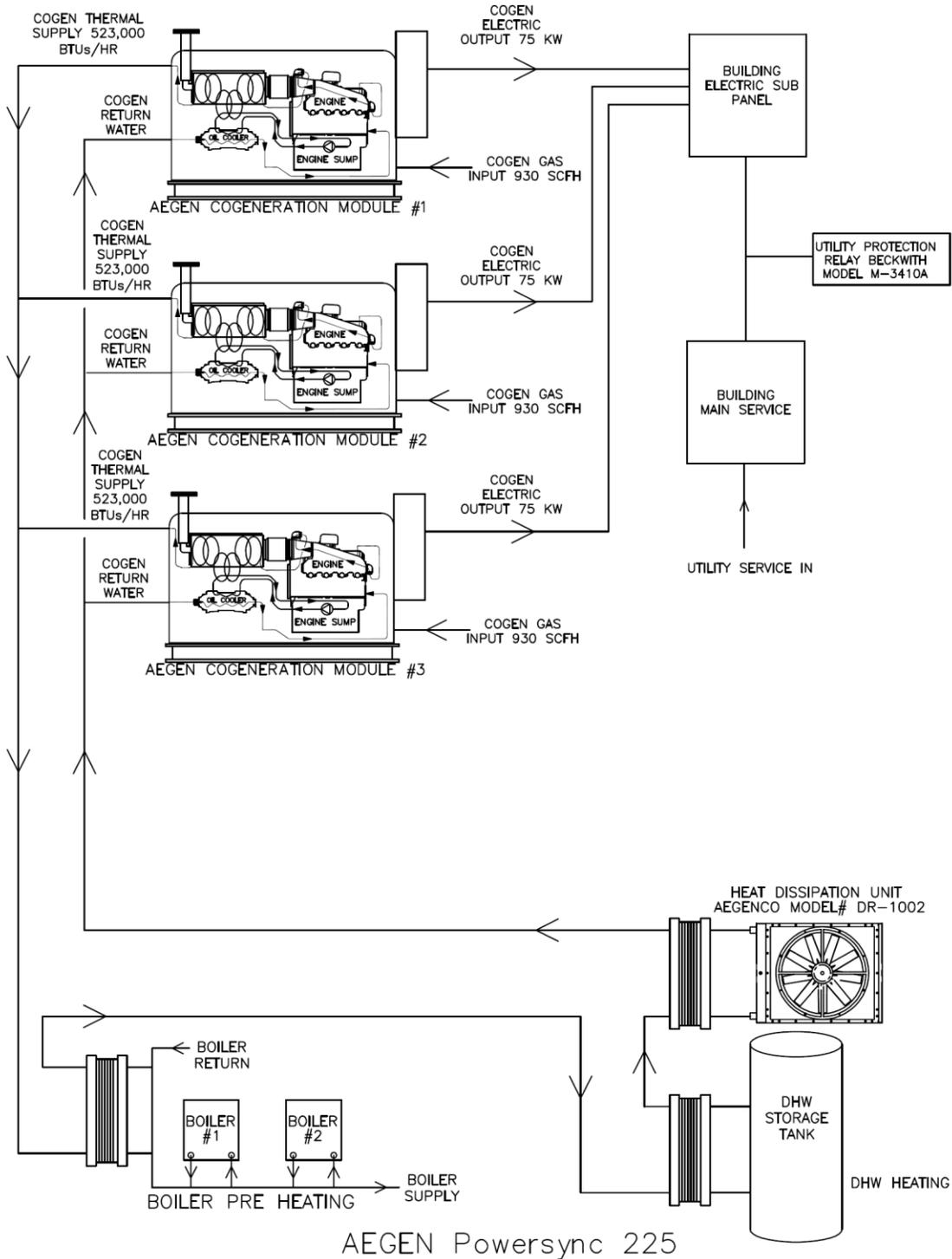
Vendor Information

Aegis Energy Services, Inc. 55 Jackson St. Holyoke, MA 01040 (413) 536-1156 LeeV@aegisenergyservices.com www.aegisenergyservices.com

Aegis Energy Services, Inc.

Aegen PowerSync 225

225 kW





Aegis Energy Services, Inc.

Aegen PowerVerter 225

225 kW

Description

Type of prime mover	Number of prime mover units	Synchronous or Inverter	Type	Black-Start Capable	Qualification Status
RICE	3	Inverter	CHP-HW	Yes	Pre-qualified

Performance

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	Hot Water to Building @ 180°F			NOx lbs/MWh
					MBtu/h	Return °F	Net System Efficiency % (HHV)	
100%	59°F	2845.8	198.2	23.8%	1569.0	170	78.9%	0.177
	95°F	2845.8	198.2	23.8%	1569.0	170	78.9%	0.177
75%	59°F	2154.3	142.0	22.5%	1191.0	170	77.8%	0.037
	95°F	2154.3	142.0	22.5%	1191.0	170	77.7%	0.037
17.8%	59°F	612.0	29.2	16.3%	351	170	73.6%	0.050
	95°F	612.0	29.2	16.3%	351	170	73.6%	0.050

Notes: 1 – All performance data based on fuel energy content of 1020 Btu/CF HHV

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*	18FT	22FT	8.5FT	12,750
Core system based on minimum width*	8FT	54FT	8.5FT	
Heat Rejection subsystem*	4.5FT	13.5FT	5FT	2,100
Largest part for delivery	2FT	5.25FT	8.5FT	1,200
Heaviest part for delivery	2FT	5.25FT	8.5FT	1,200

*Includes maintenance clearances.

Vendor Statement



The Leader in Combined Heat & Power since 1985


Made in the USA

Reducing Energy Costs with Onsite
 Combined Heat and Power

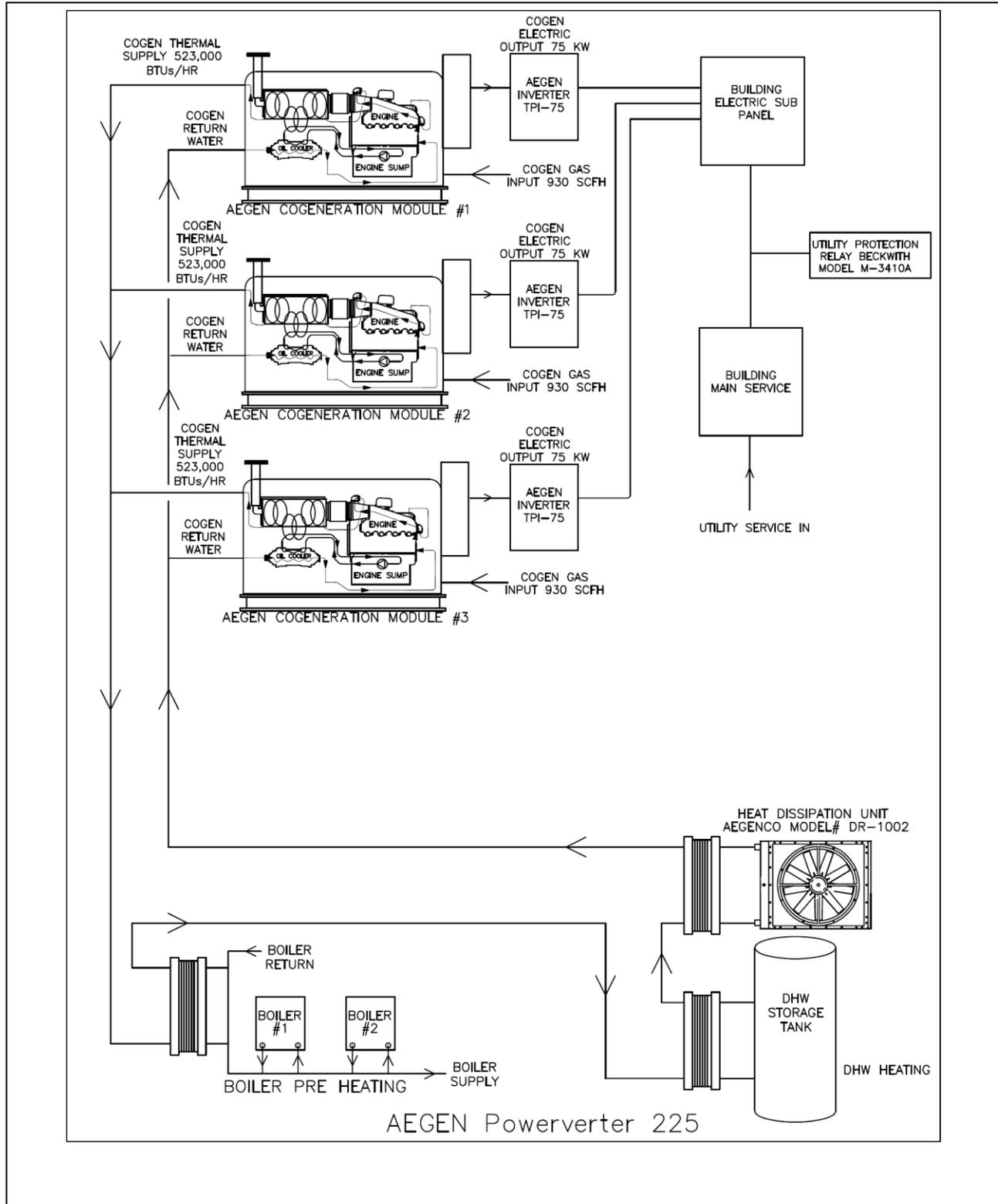
Vendor Information

Aegis Energy Services, Inc. 55 Jackson St. Holyoke, MA 01040 (413) 536-1156 LeeV@aegisenergyservices.com www.aegisenergyservices.com

Aegis Energy Services, Inc.

Aegen PowerVerter 225

225 kW





Aegis Energy Services, Inc.

Aegen PowerSync 300

300 kW

Description

Type of prime mover	Number of prime mover units	Synchronous or Inverter	Type	Black-Start Capable	Qualification Status
RICE	4	Synchronous	CHP-HW	Yes	Pre-qualified

Performance

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	Hot Water to Building @ 180°F			NOx lbs/MWh
					MBtu/h	Return °F	Net System Efficiency % (HHV)	
100%	59°F	3794.4	289.7	26.1%	2092	170	81.2%	0.177
	95°F	3794.4	289.7	26.1%	2092	170	81.2%	0.177
75%	59°F	2845.8	214.7	25.8%	1569.0	170	80.9%	0.177
	95°F	2845.8	214.7	25.8%	1569.0	170	80.9%	0.177
15%	59°F	612.0	34.7	19.4%	351.0	170	76.7%	0.050
	95°F	612.0	34.7	19.4%	351.0	170	76.7%	0.050

Notes: 1 – All performance data based on fuel energy content of 1020 Btu/CF HHV

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*	32FT	13FT	4FT	12,200
Core system based on minimum width*	8FT	52FT	4FT	
Heat Rejection subsystem*	9FT	9FT	5FT	2,800
Largest part for delivery	2.67FT	2.67FT	2.5FT	850
Heaviest part for delivery	2.67FT	2.67FT	2.5FT	850

*Includes maintenance clearances.

Vendor Statement



The Leader in Combined Heat & Power since 1985


Made in the USA

Reducing Energy Costs with Onsite
 Combined Heat and Power

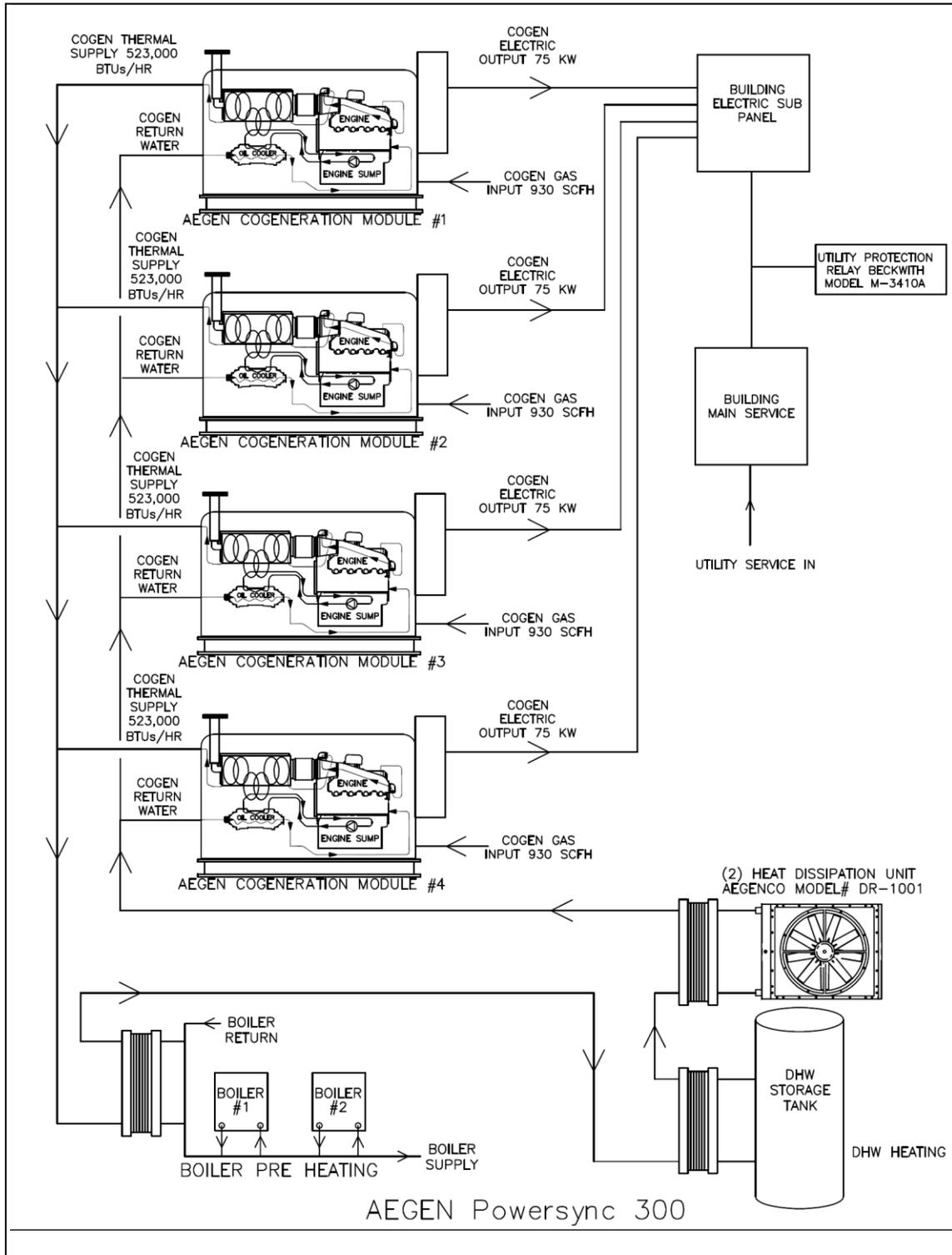
Vendor Information

Aegis Energy Services, Inc. 55 Jackson St. Holyoke, MA 01040 (413) 536-1156 LeeV@aegisenergyservices.com www.aegisenergyservices.com

Aegis Energy Services, Inc.

Aegen PowerSync 300

300 kW





Aegis Energy Services, Inc.

Aegen PowerVerter 300

300 kW

Description

Type of prime mover	Number of prime mover units	Synchronous or Inverter	Type	Black-Start Capable	Qualification Status
RICE	4	Inverter	CHP-HW	Yes	Pre-qualified

Performance

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	Hot Water to Building @ 180°F			NOx lbs/MWh
					MBtu/h	Return °F	Net System Efficiency % (HHV)	
100%	59°F	3794.4	265.4	23.9%	2092	170	79.0%	0.177
	95°F	3794.4	265.4	23.9%	2092	170	79.0%	0.177
75%	59°F	2845.8	190.4	22.8%	1569.0	170	78.0%	0.177
	95°F	2845.8	190.4	22.8%	1569.0	170	78.0%	0.177
15%	59°F	612.0	28.1	15.7%	351.0	170	73.0%	0.050
	95°F	612.0	28.1	15.7%	351.0	170	73.0%	0.050

Notes: 1 – All performance data based on fuel energy content of 1020 Btu/CF HHV

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*	18FT	27FT	8.5FT	17,000
Core system based on minimum width*	8FT	72FT	8.5FT	
Heat Rejection subsystem*	9FT	9FT	5FT	2800
Largest part for delivery	2FT	5.25FT	8.5FT	1200
Heaviest part for delivery	2FT	5.25FT	8.5FT	1200

*Includes maintenance clearances.

Vendor Statement



The Leader in Combined Heat & Power since 1985

 Made in the USA

Reducing Energy Costs with Onsite Combined Heat and Power

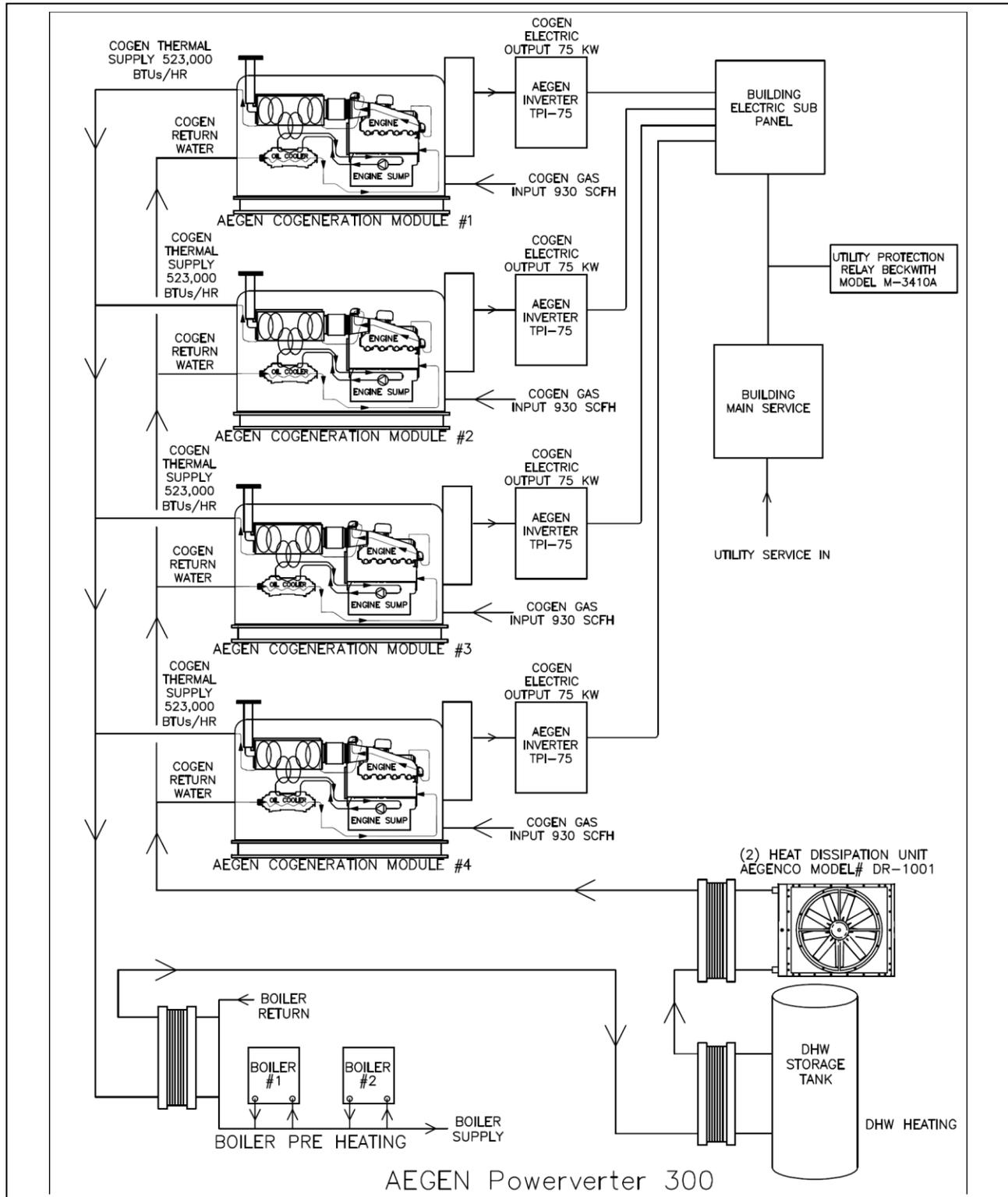
Vendor Information

<p>Aegis Energy Services, Inc. 55 Jackson St. Holyoke, MA 01040 (413) 536-1156 LeeV@aegisenergyservices.com www.aegisenergyservices.com</p>
--

Aegis Energy Services, Inc.

Aegen PowerVerter 300

300 kW



Co-Energy America
Amerigen 8150
150kW
Description

Type of prime mover	Number of prime mover units	Synchronous or Inverter	Type	Black-Start Capable	Qualification Status
RICE	1	Synchronous	CHP-HW	Yes	Conditionally qualified

Performance

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	Hot Water to Building @ 180°F			NOx lbs/MWh
					MBtu/h	Return °F	Net System Efficiency % (HHV)	
100%	59°F	1538	144	33.9	778	163	82.5	.33
	95°F	1538	144	33.9	778	163	82.5	.33
75%	59°F	1260	108	31.0	671	166	82.5	.33
	95°F	1260	108	31.0	671	166	82.5	.33
50%	59°F	942	72	27.7	498	169	79.0	.33
	95°F	942	72	27.7	498	169	79.0	.33

Notes: 1 – All performance data based on fuel energy content of 1030 _____ Btu/CF HHV

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*	11	16	8	11,000
Core system based on minimum width*	5	12	8	
Heat Rejection subsystem*	4	10	5	1,500
Largest part for delivery	13	5	1	1,000
Heaviest part for delivery	2.5	6	6	4000

*Includes maintenance clearances.

Vendor Information

Co-Energy America 156 Milford St Upton, MA 01568 508-529-6599 rhm@coenergyamerica.com www.coenergyamerica.com
--

Vendor Statement

<p>Co-Energy America is a leading developer of packaged combined heat and power systems, specializing in the design, manufacture, installation and maintenance of 60kW to 1MW CHP Systems. Since 1998 we have designed, installed and serviced over 70 cogeneration units at schools, hotels, apartment buildings, assisted living facilities and other commercial properties totaling nearly 11MW of continuous power throughout New York and New England. Our Amerigen CHP unit is the result of years of fine tuning, rework and testing. Co-Energy America performs facility energy audits, design-builds projects, and services all of our cogeneration systems. Co-Energy remotely monitors and manages all CHP systems in our Network Operations Center. Experienced service technicians stand ready 24/7 for preventative and unscheduled maintenance.</p>
--



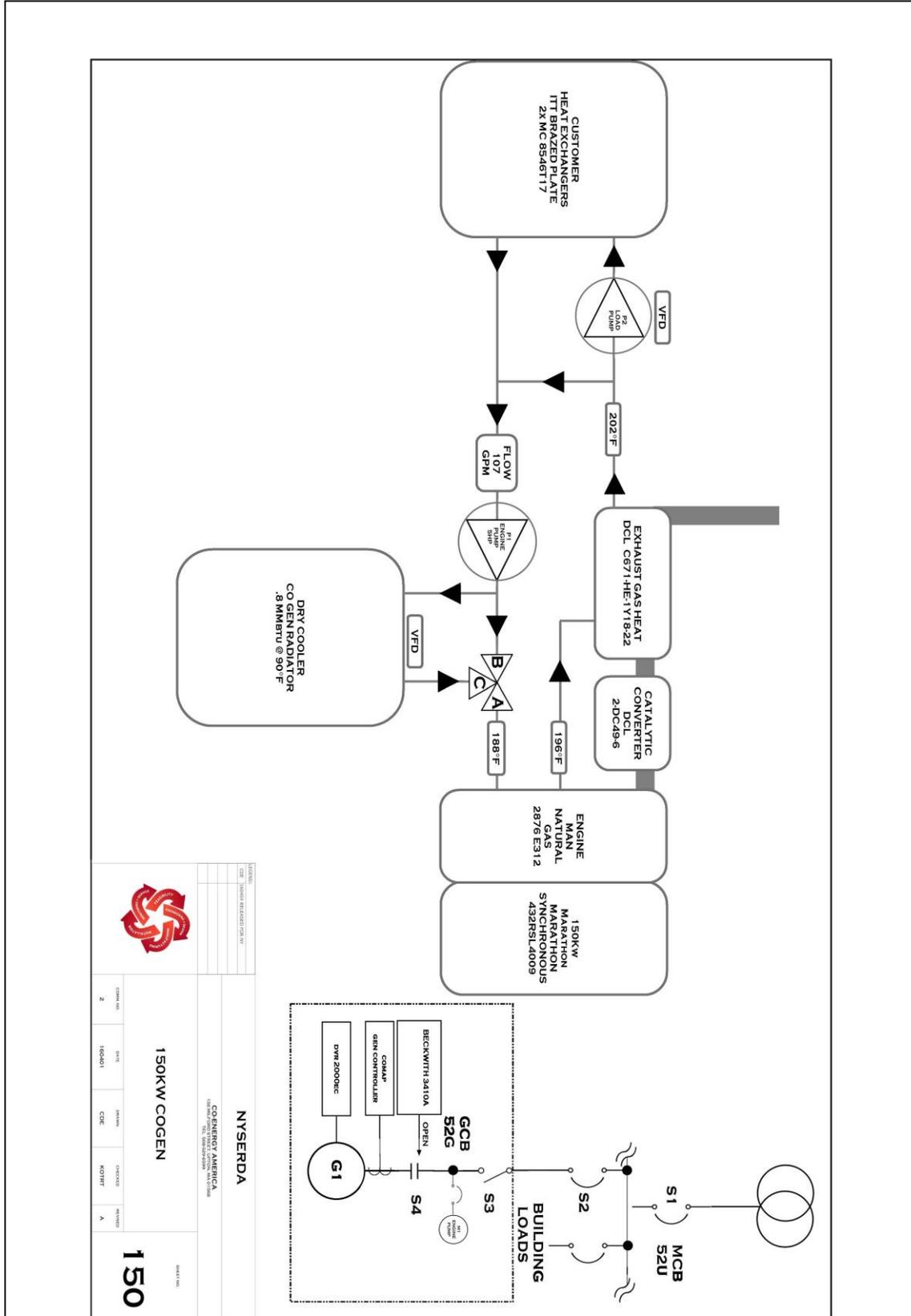
NYSERDA



Co-Energy America
Co-Energy America

Amerigen 8150
Amerigen 8150

150kW
150kW




150kW COGEN
150

COMP NO	DATE	BY	CHKD	APPV
Z	10/04/1	CDE	KOYTF	A

NYSERDA
 CO-ENERGY AMERICA
 150kW COGEN

Co-Energy America
AMERIGEN250 (Sync)
250 kW
Description

Type of prime mover	Number of prime mover units	Synchronous or Inverter	Type	Black-Start Capable	Qualification Status
RICE	1	Synchronous	CHP-HW	Yes	Conditionally qualified

Performance

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	Hot Water to Building @ 180°F			NOx lbs/MWh
					MBtu/h	Return °F	Net System Efficiency % (HHV)	
100%	59°F	2626	250	33.2	1290	163	82.3	.33
	95°F	2626	250	33.2	1290	163	82.3	.33
75%	59°F	2101	188	32.1	1032	166	81.0	.33
	95°F	2101	188	32.1	1032	166	81.0	.33
50%	59°F	1564	125	27.9	768	169	79.5	.33
	95°F	1564	125	27.9	768	169	79.5	.33

Notes: 1 – All performance data based on fuel energy content of 1030 Btu/CF HHV

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*	6	13	8	9,125
Core system based on minimum width*	6	13	8	
Heat Rejection subsystem*	4	12	5	2,000
Largest part for delivery	6	13	8	9,125
Heaviest part for delivery	6	13	8	9,125

*Includes maintenance clearances.

Vendor Information

Co-Energy America 156 Milford St Upton, MA 01568 508-529-6599 rhm@coenergyamerica.com www.coenergyamerica.com

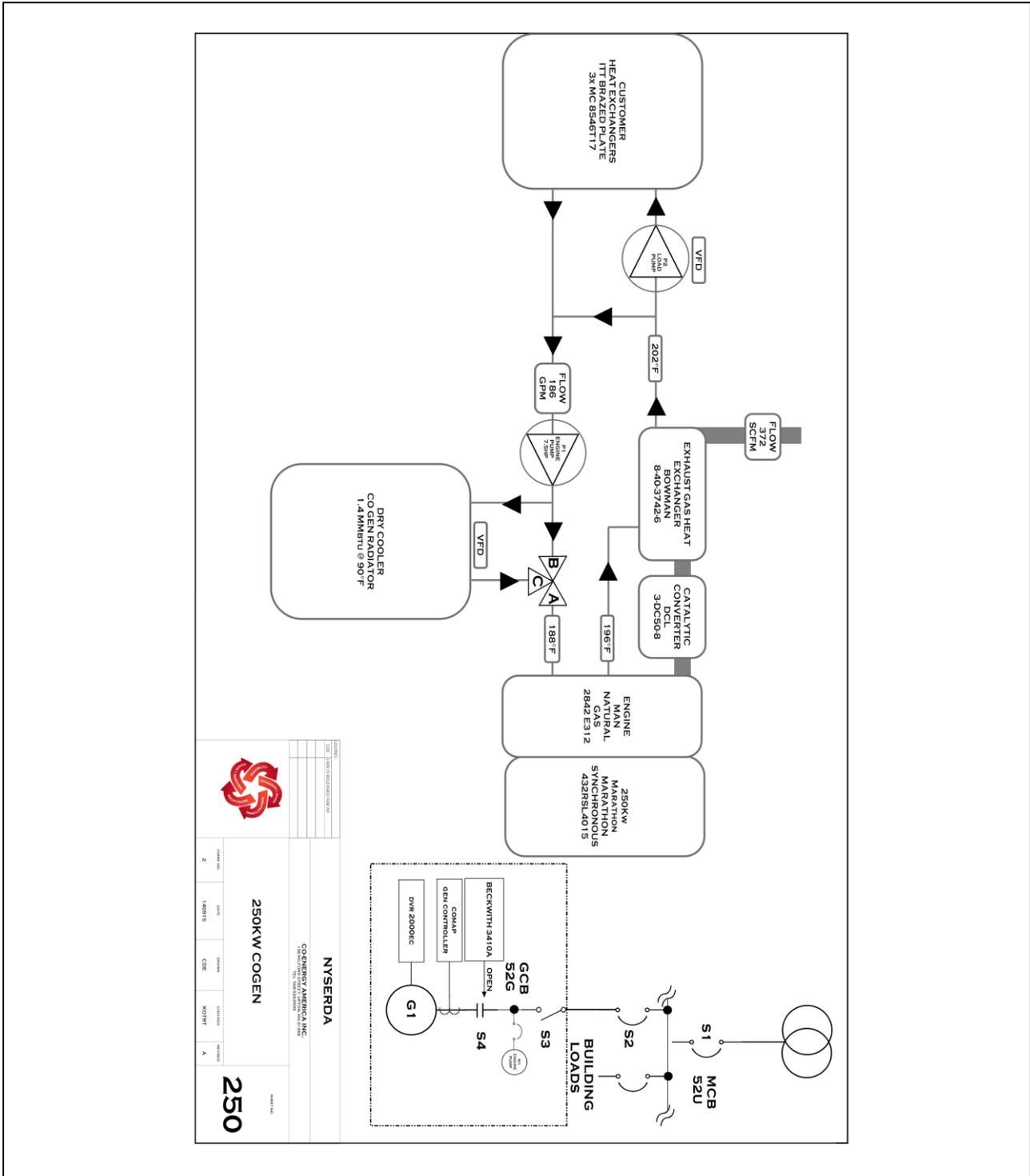
Vendor Statement

Co-Energy America is a leading developer of packaged combined heat and power systems, specializing in the design, manufacture, installation and maintenance of 60kW to 1MW CHP Systems. Since 1998 we have designed, installed and serviced over 70 cogeneration units at schools, hotels, apartment buildings, assisted living facilities and other commercial properties totaling nearly 10MW of continuous power throughout New York and New England. Our Amerigen CHP unit is the result of years of fine tuning, rework and testing. Co-Energy America performs facility energy audits, design-builds projects, and services all of our cogeneration systems. Co-Energy remotely monitors and manages all CHP systems in our Network Operations Center. Experienced service technicians stand ready 24/7 for preventative and unscheduled maintenance.

Co-Energy America

AMERIGEN250 (Sync)

250 kW



Cogen Power Technologies
1137-1
1,137 kW
Description

Type of prime mover	Number of prime mover units	Synchronous or Inverter	Type	Black-Start Capable	Qualification Status
RICE	1	Synchronous	CHP-HW	Yes	Conditionally qualified

Performance

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	Hot Water to Building @ 180°F			NOx lbs/MWh
					MBtu/h	Return °F	Net System Efficiency % (HHV)	
100%	59°F	10,640	1,131	36%	4,077	81°	73%	1,567
	95°F	10,640	1,131	36%	4,077	81°	73%	1,567

Notes: 1 – All performance data based on fuel energy content of 1020 Btu/CF HHV
Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*	17 ft.	43 ft. 9 in.	20 ft	70,400 lbs. (Operating Weight)
Core system based on minimum width*	17 ft.	43 ft. 9 in.	20 ft	
Heat Rejection subsystem*	17 ft.	42 ft.	10 ft	11,600 lbs
Largest part for delivery	10 ft.	40 ft.	9 ft. 2 in.	68,060 lbs. (Dry Weight)
Heaviest part for delivery	10 ft.	40 ft.	9 ft. 2 in.	

*Includes maintenance clearances.

Vendor Information

Cogen Power Technologies 22 Century Hill Drive Suite 201 Latham, NY 12110 (518) 213-1090 info@powerbycogen.com www.powerbycogen.com
--

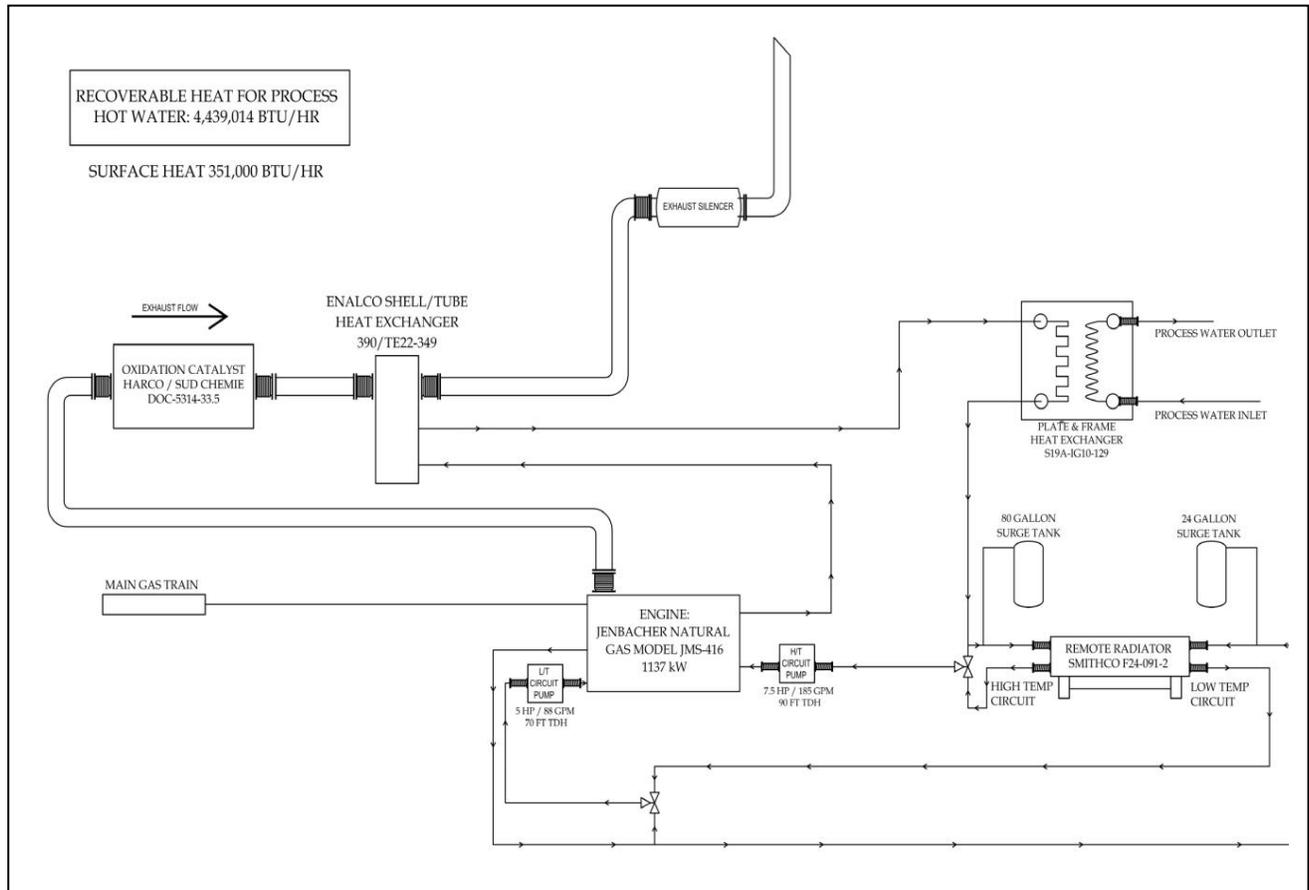
Vendor Statement

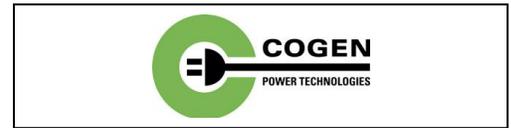
Cogen Power Technologies (Cogen) is full-service provider of cogeneration solutions for public and private sector entities across New York State and the region. Cogen is recognized as an authority in planning, developing, and operating cogeneration systems, and has earned a reputation as a leader in the green energy world. Our comprehensive approach begins at planning and design, regulatory compliance, utility coordination, plant construction, and goes on through implementation and operation. Cogen is managed by a group with extensive experience in energy management, procurement, engineering, commissioning, and systems design to offer comprehensive services for the planning, design and implementation of cogeneration and district energy systems. Cogen has received the 2013 "Outstanding Leadership" Award from the Northeast Clean Heat and Power Initiative (NECHPI) for its body of CHP work.

Cogen Power Technologies

1137-1

1,137 kW





Cogen Power Technologies

1137-2 CCHP

1,137 kW

Description

Type of prime mover	Number of prime mover units	Synchronous or Inverter	Type	Black-Start Capable	Qualification Status
RICE	1	Synchronous	CCHP	Yes	Conditionally qualified

Performance - Heating Mode

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	Hot Water to Building @ 180°F			NOx lbs/MWh
					MBtu/h	Return °F	Net System Efficiency % (HHV)	
100%	59°F	10,640	1,084	36%	4,077	141	73%	1.567
	95°F	10,640	1,084	36%	4,077	141	73%	1.567

¹ All performance data based on fuel energy content of 1020 Btu/CF HHV

Performance – Cooling Mode

Ambient DB/WB	Fuel in MBtu/h (HHV)	Net Prime Mover kW	Prime Mover Hot Water Supply to Chiller			Chiller			Chiller Cooling Tower Water		
			MBtu/h	Supply °F	Return °F	Capacity ² tons	Coefficient of Performance	Parasitic kW	gpm	Supply °F	Return °F
95/78°F	9,673	1,084	3,384	203	164	189	.62	8.0	1,283	82	91

² Using heat from the prime mover. 45 °F chilled water output.

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*	17 ft.	43 ft. 9 in.	20 ft	70,400 lbs.
Core system based on minimum width*	17 ft.	43 ft. 9 in.	20 ft	
PM Heat Rejection subsystem*	17 ft.	42 ft.	10 ft	11,600 lbs
Chiller Cooling Tower*				7,500 lbs.
Largest part for delivery	10 ft.	40 ft.	9 ft. 2 in.	68,060 lbs
Heaviest part for delivery	10 ft.	40 ft.	9 ft. 2 in.	

*Includes maintenance clearances.

Vendor Information

Cogen Power Technologies 22 Century Hill Drive Suite 201 Latham, NY 12110 (518) 213-1090 info@powerbycogen.com www.powerbycogen.com
--

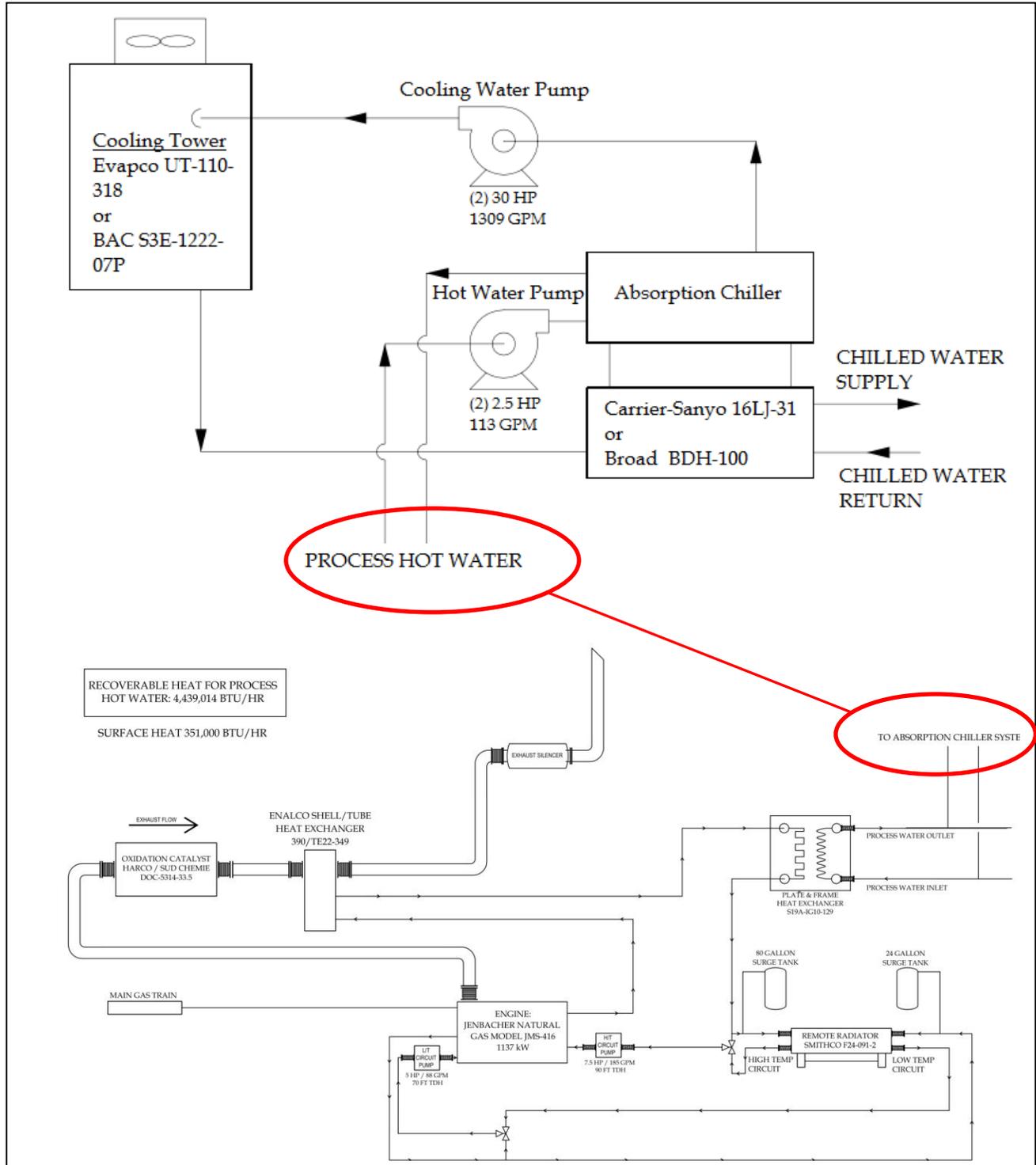
Vendor Statement

Cogen Power Technologies (Cogen) is full-service provider of cogeneration solutions for public and private sector entities across New York State and the region. Cogen is recognized as an authority in planning, developing, and operating cogeneration systems, and has earned a reputation as a leader in the green energy world. Our comprehensive approach begins at planning and design, regulatory compliance, utility coordination, plant construction, and goes on through implementation and operation. Cogen is managed by a group with extensive experience in energy management, procurement, engineering, commissioning, and systems design to offer comprehensive services for the planning, design and implementation of cogeneration and district energy systems. Cogen has received the 2013 “Outstanding Leadership” Award from the Northeast Clean Heat and Power Initiative (NECHPI) for its body of CHP work.

Cogen Power Technologies

1137-2 CCHP

1,137 kW



Elite Energy Engineering LLC
EEE150
150 kW
Description

Type of prime mover	Number of prime mover units	Synchronous or Inverter	Type	Black-Start Capable	Qualification Status
RICE	1	Synchronous	CHP-HW	Yes	Conditionally qualified

Performance

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	Hot Water to Building @ 180°F			NOx lbs/MWh
					MBtu/h	Return °F	Net System Efficiency % (HHV)	
100%	59°F	1,840	155	28.6%	799	156	71.9%	<1.6
	95°F	1,840	155	28.6%	799	156	71.9%	<1.6
75%	59°F	1,447	114	26.5%	638	160	70.5%	<1.6
	95°F	1,447	114	26.5%	638	160	70.5%	<1.6
65%	59°F	1,290	97	25.6%	574	161	70.0%	<1.6
	95°F	1,290	97	25.6%	574	161	70.0%	<1.6

 Notes: 1 – All performance data based on fuel energy content of 1025 Btu/CF HHV

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*	107"	174"	144"	10,140
Core system based on minimum width*	107"	174"	144"	
Heat Rejection subsystem*	N/A	N/A	N/A	N/A
Largest part for delivery (core system)	67"	134"	84"	10,140
Heaviest part for delivery	67"	134"	84"	10,140

*Includes maintenance clearances.

Vendor Information

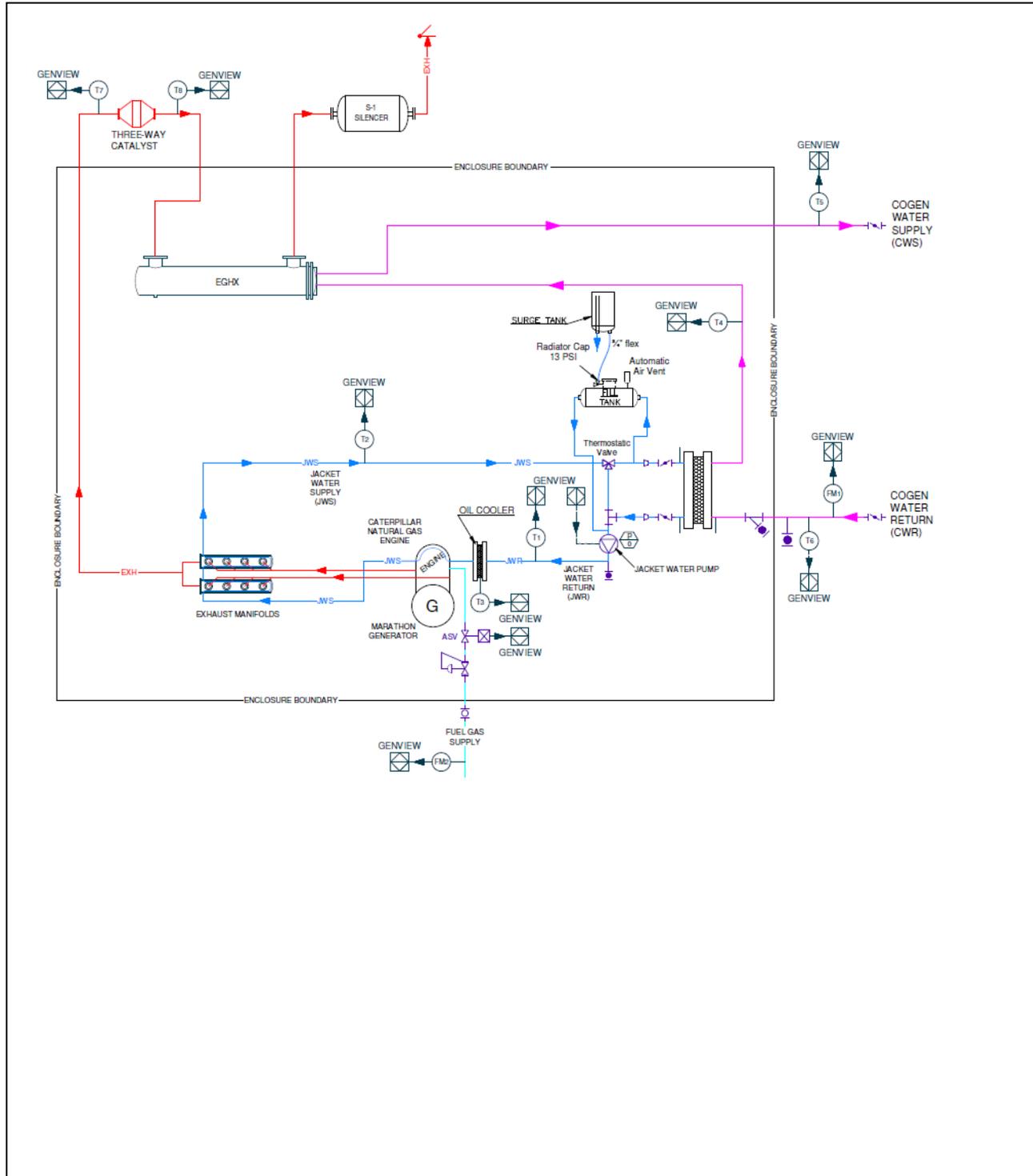
 Elite Energy Engineering LLC (Formally Elite Energy Systems LLC)
 20 Industrial Parkway
 Carson City, NV 89706
 (775) 246-8111
 ppalmer@e3nv.com
 www.e3nv.com

Vendor Statement

Elite Energy Engineering LLC

EEE150

150 kW





Elite Energy Engineering LLC

EEE250

250 kW

Description

Type of prime mover	Number of prime mover units	Synchronous or Inverter	Type	Black-Start Capable	Qualification Status
RICE	1	Synchronous	CHP-HW	Yes	Conditionally qualified

Performance

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	Hot Water to Building @ 180°F			NOx lbs/MWh
					MBtu/h	Return °F	Net System Efficiency % (HHV)	
100%	59°F	3,138	251	27.3%	1,579	153	77.5%	<1.6
	95°F	3,138	251	27.3%	1,579	153	77.5%	<1.6
75%	59°F	2,515	187	25.2%	1,300	160	76.9%	<1.6
	95°F	2,515	187	25.2%	1,300	160	76.9%	<1.6
70%	59°F	2,390	174	24.8%	1,245	161	76.8%	<1.6
	95°F	2,390	174	24.8%	1,245	161	76.8%	<1.6

Notes: 1 – All performance data based on fuel energy content of 1025 Btu/CF HHV

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*	107"	174"	144"	11,460
Core system based on minimum width*	107"	174"	144"	
Heat Rejection subsystem*	N/A	N/A	N/A	N/A
Largest part for delivery (core system)	67"	134"	84"	11,460
Heaviest part for delivery	67"	134"	84"	11,460

*Includes maintenance clearances.

Vendor Information

Elite Energy Engineering LLC (Formally Elite Energy Systems LLC) 20 Industrial Parkway Carson City, NV 89706 (775) 246-8111 ppalmer@e3nv.com www.e3nv.com
--

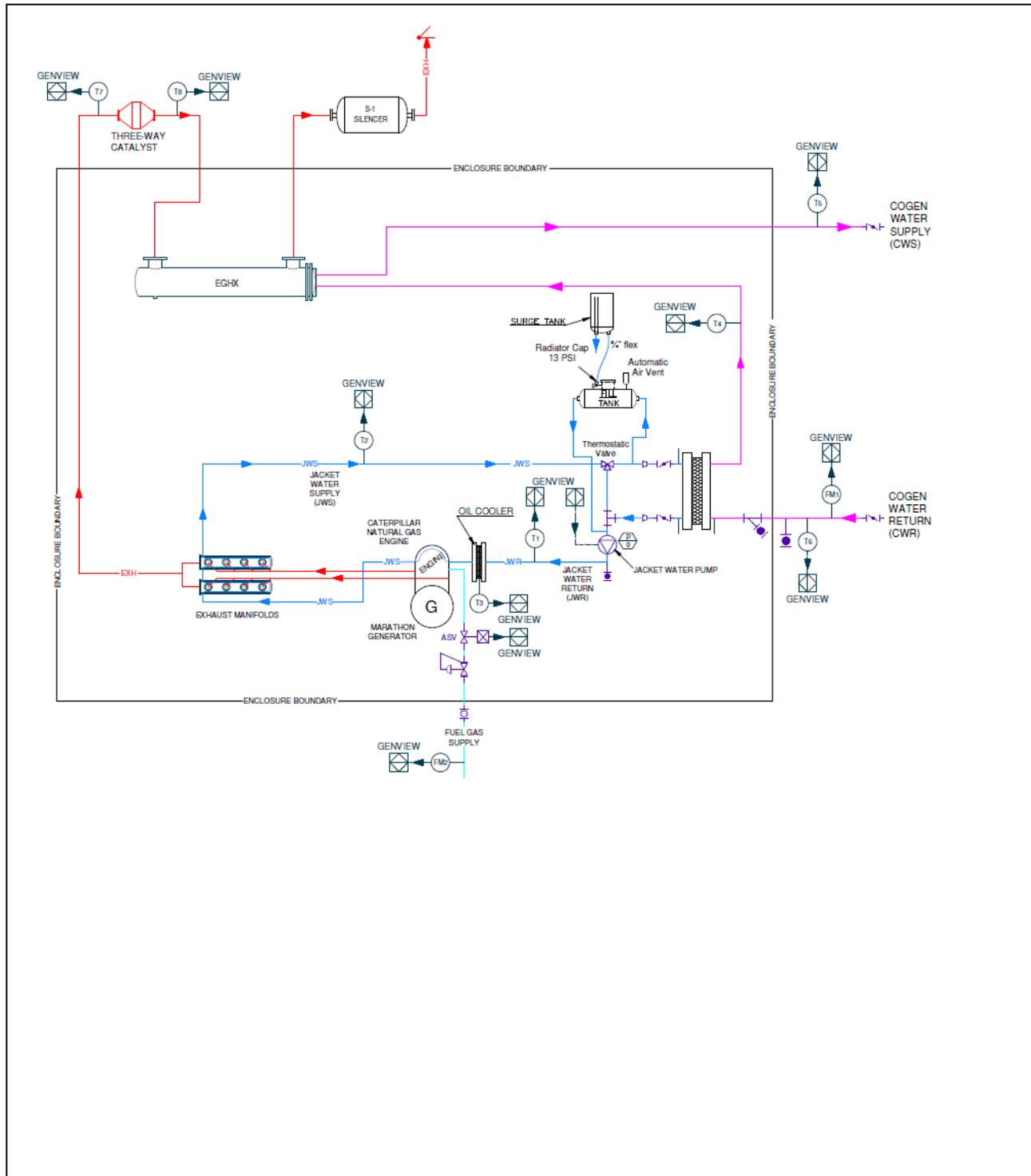
Vendor Statement

--

Elite Energy Engineering LLC

EEE250

250 kW





ENER-G Rudox Inc

ER80UL HW

80 kW

Description

Type of prime mover	Number of prime mover units	Synchronous, Inverter or Induction	Type	Black-Start Capable	Qualification Status
RICE	1	Synchronous	CHP-HW	Yes	Conditionally qualified

Performance

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	Hot Water to Building @ 180°F			NOx lbs/MWh
					MBtu/h	Return °F	Net System Efficiency % (HHV)	
100%	59°F	871	75	30.72	380.1	160	79.09	0.3
	95°F	871	75	30.72	380.1	160	79.09	0.3
75%	59°F	692	55	29.00	308.9	160	78.55	0.3
	95°F	692	55	29.00	308.9	160	78.55	0.3
50%	59°F	518	35	25.76	239.8	160	77.11	0.3
	95°F	518	35	25.76	239.8	160	77.11	0.3

Notes: 1 – All performance data based on fuel energy content of 1016 Btu/CF HHV

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*	11ft	18.7ft	7ft	9,240
Core system based on minimum width*	11ft	18.7ft	8ft	
Heat Rejection subsystem*	5ft	4ft	5ft	1,200
Largest part for delivery	4ft	12ft	7ft	9,240
Heaviest part for delivery	4ft	12ft	7ft	9,240

*Includes maintenance clearances.

Vendor Information

Ener-G Rudox Inc 180 East Union Avenue East Rutherford, NJ, 07072 (917)-281-0020, chp@energ-rudox.com www.energ-rudox.com

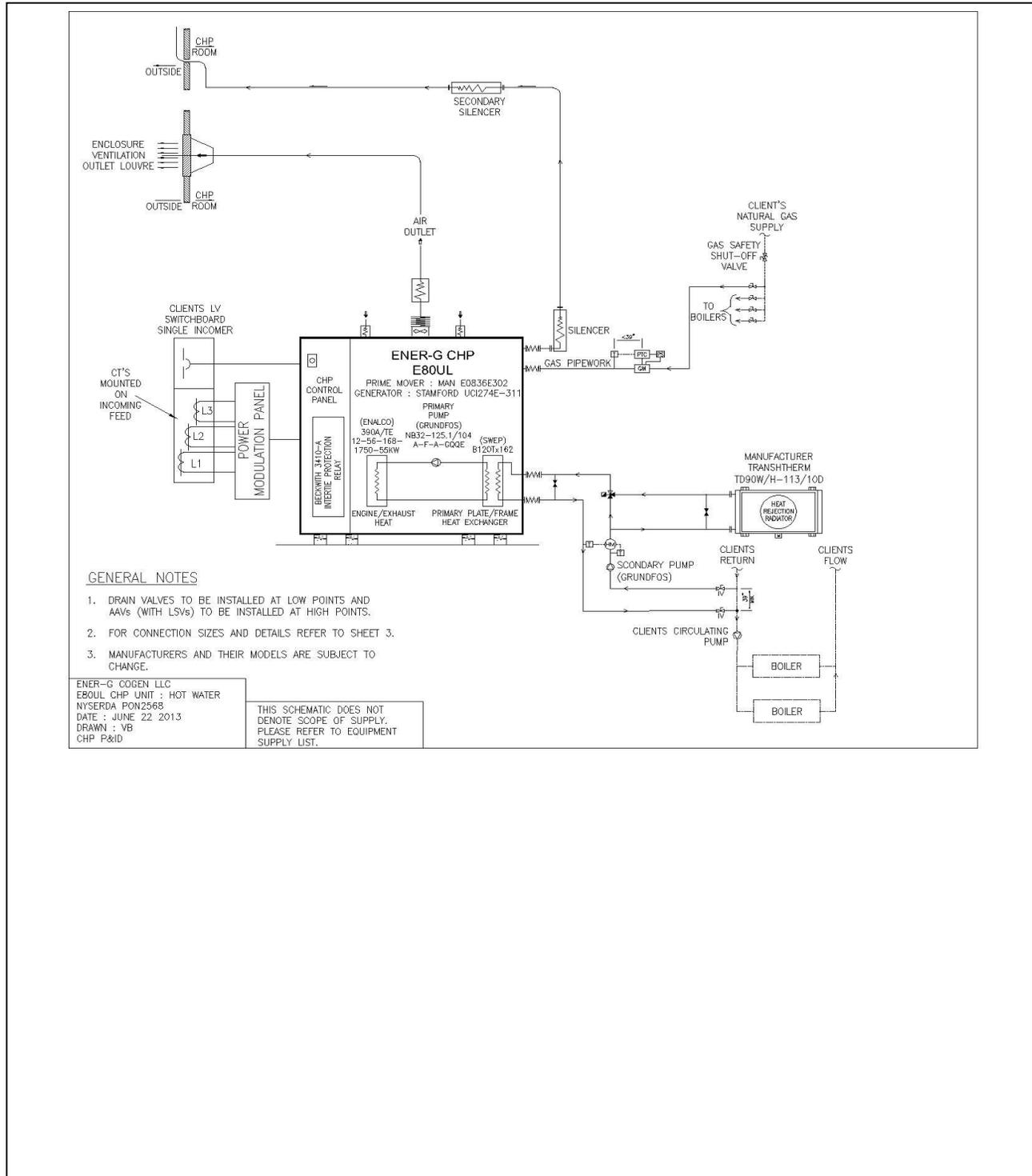
Vendor Statement

<p>ENER-G Rudox Inc, as part of the ENER-G Cogen International offers a range of efficient cogeneration and tri-generation systems from 80kwe to 2.1Mwe . Ener-G offers turnkey solutions, with in-house capabilities from Project Development, Financing, Design, Assembly, Delivery, Installation, Commissioning and on-going 24/7 maintenance with dedicated remote monitoring facilities based at our US Head office. We stock a full inventory of spare parts for all of our equipment.</p> <p>The demand for energy is ever growing whilst it is becoming increasingly expensive. Businesses and individuals are seeking to reduce their costs and carbon footprint. Ener-G Cogeneration can help.</p> <p>Ener-G offer flexible finance models, offering access to our energy solutions without the upfront capital expenditure normally required. ENER-G is 100% dedicated to the development of its products and markets and over the years has seen rapid growth, both organically and through acquisition, to achieve a strong global presence within the energy industry. Currently ENER-G operates in the UK, the USA, the Netherlands, Norway, Poland, Hungary, Lithuania, Spain, Italy, Romania, Mexico and South Africa, with partners across the globe.</p>

ENER-G Rudox Inc

ER80UL HW

80 kW





ENER-G Rudox Inc

ER80ULI HW

80 kW

Description

Type of prime mover	Number of prime mover units	Synchronous, Inverter or Induction	Type	Black-Start Capable	Qualification Status
RICE	1	Inverter	CHP-HW	Yes	Conditionally qualified

Performance

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	Hot Water to Building @ 180°F			NOx lbs/MWh
					MBtu/h	Return °F	Net System Efficiency % (HHV)	
100%	59°F	871	74	30.72	380.1	160	79.09	0.3
	95°F	871	74	30.72	380.1	160	79.09	0.3
75%	59°F	692	54	29.0	308.9	160	78.55	0.3
	95°F	692	54	29.0	308.9	160	78.55	0.3
50%	59°F	518	34	25.76	239.8	160	77.11	0.3
	95°F	518	34	25.76	239.8	160	77.11	0.3

Notes: 1 – All performance data based on fuel energy content of 1016 Btu/CF HHV

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*	11ft	18.7ft	7ft	9,240
Core system based on minimum width*	11ft	18.7ft	8ft	
Heat Rejection subsystem*	5ft	4ft	5ft	1,200
Largest part for delivery	4ft	12ft	7ft	9,240
Heaviest part for delivery	4ft	12ft	7ft	9,240

*Includes maintenance clearances.

Vendor Information

Ener-G Rudox Inc 180 East Union Avenue East Rutherford, NJ, 07072 (917)-281-0020, chp@energ-rudox.com www.energ-rudox.com

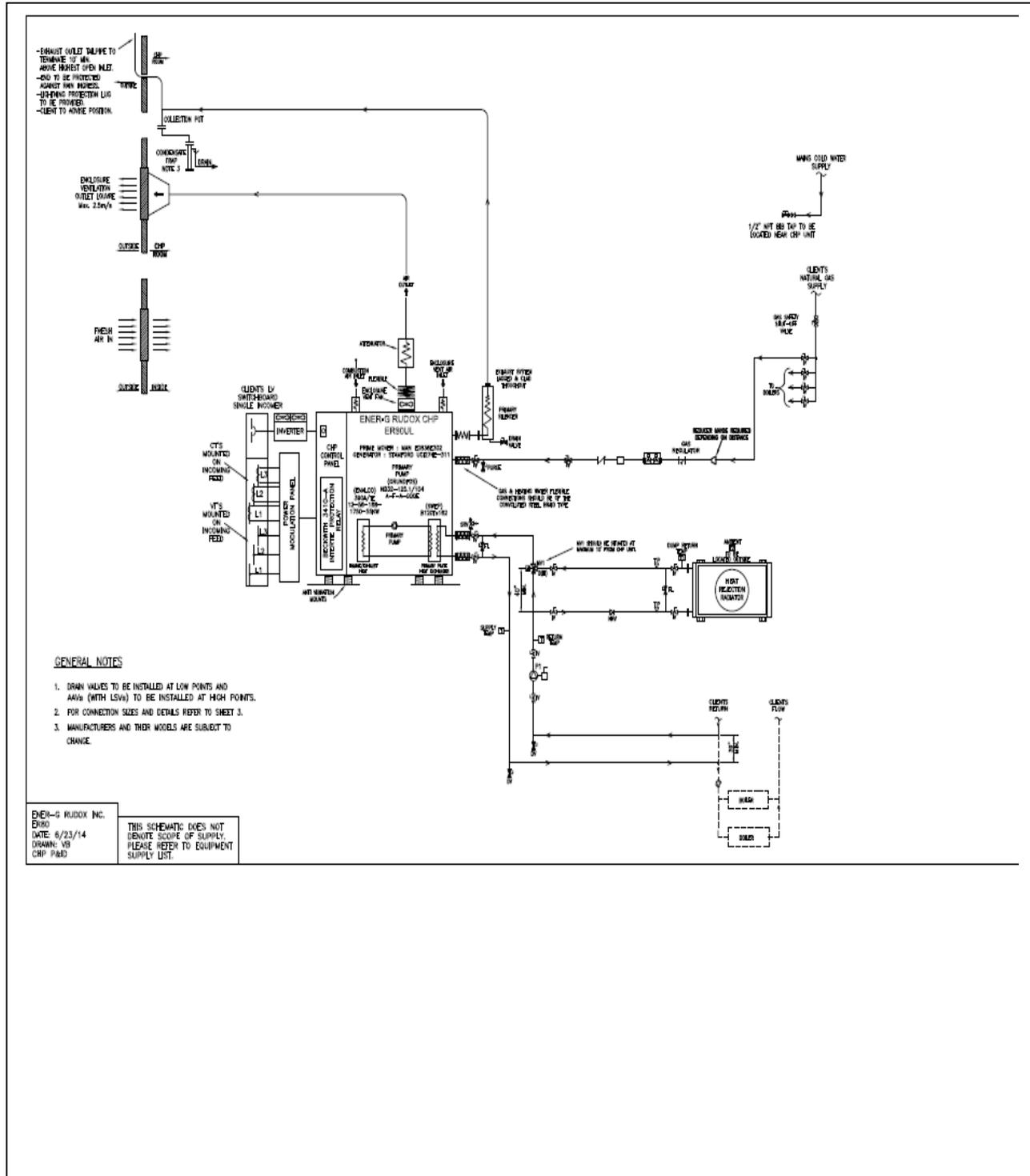
Vendor Statement

<p>ENER-G Rudox Inc, as part of the ENER-G Cogen International offers a range of efficient cogeneration and tri-generation systems from 80kwe to 2.1Mwe . Ener-G offers turnkey solutions, with in-house capabilities from Project Development, Financing, Design, Assembly, Delivery, Installation, Commissioning and on-going 24/7 maintenance with dedicated remote monitoring facilities based at our US Head office. We stock a full inventory of spare parts for all of our equipment.</p> <p>The demand for energy is ever growing whilst it is becoming increasingly expensive. Businesses and individuals are seeking to reduce their costs and carbon footprint. Ener-G Cogeneration can help.</p> <p>Ener-G offer flexible finance models, offering access to our energy solutions without the upfront capital expenditure normally required. ENER-G is 100% dedicated to the development of its products and markets and over the years has seen rapid growth, both organically and through acquisition, to achieve a strong global presence within the energy industry. Currently ENER-G operates in the UK, the USA, the Netherlands, Norway, Poland, Hungary, Lithuania, Spain, Italy, Romania, Mexico and South Africa, with partners across the globe.</p>

ENER-G Rudox Inc

ER80ULI HW

80 kW





ENER-G Rudox Inc

ER160UL HW

160 kW

Description

Type of prime mover	Number of prime mover units	Synchronous, Inverter or Induction	Type	Black-Start Capable	Qualification Status
RICE	1	Synchronous	CHP-HW	Yes	Conditionally qualified

Performance

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	Hot Water to Building @ 180°F			NOx lbs/MWh
					MBtu/h	Return °F	Net System Efficiency % (HHV)	
100%	59°F	1652	153	32.30	734.2	160	81.17	0.3
	95°F	1652	153	32.30	734.2	160	81.17	0.3
75%	59°F	1071	114	30.63	597.5	160	80.90	0.3
	95°F	1071	114	30.63	597.5	160	80.90	0.3
50%	59°F	800	74	27.38	465.62	160	79.82	0.3
	95°F	800	74	27.38	465.62	160	79.82	0.3

Notes: 1 – All performance data based on fuel energy content of 1016 Btu/CF HHV

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*	11ft	18.7ft	8ft	11,464
Core system based on minimum width*	11ft	18.7ft	8ft	
Heat Rejection subsystem*	5ft	10ft	5ft	1,000
Largest part for delivery	4ft	12ft	7ft	11,464
Heaviest part for delivery	4ft	12ft	7ft	11,464

*Includes maintenance clearances.

Vendor Information

Ener-G Rudox Inc 180 East Union Avenue East Rutherford, NJ, 07072 (917)-281-0020, chp@energ-rudox.com www.energ-rudox.com

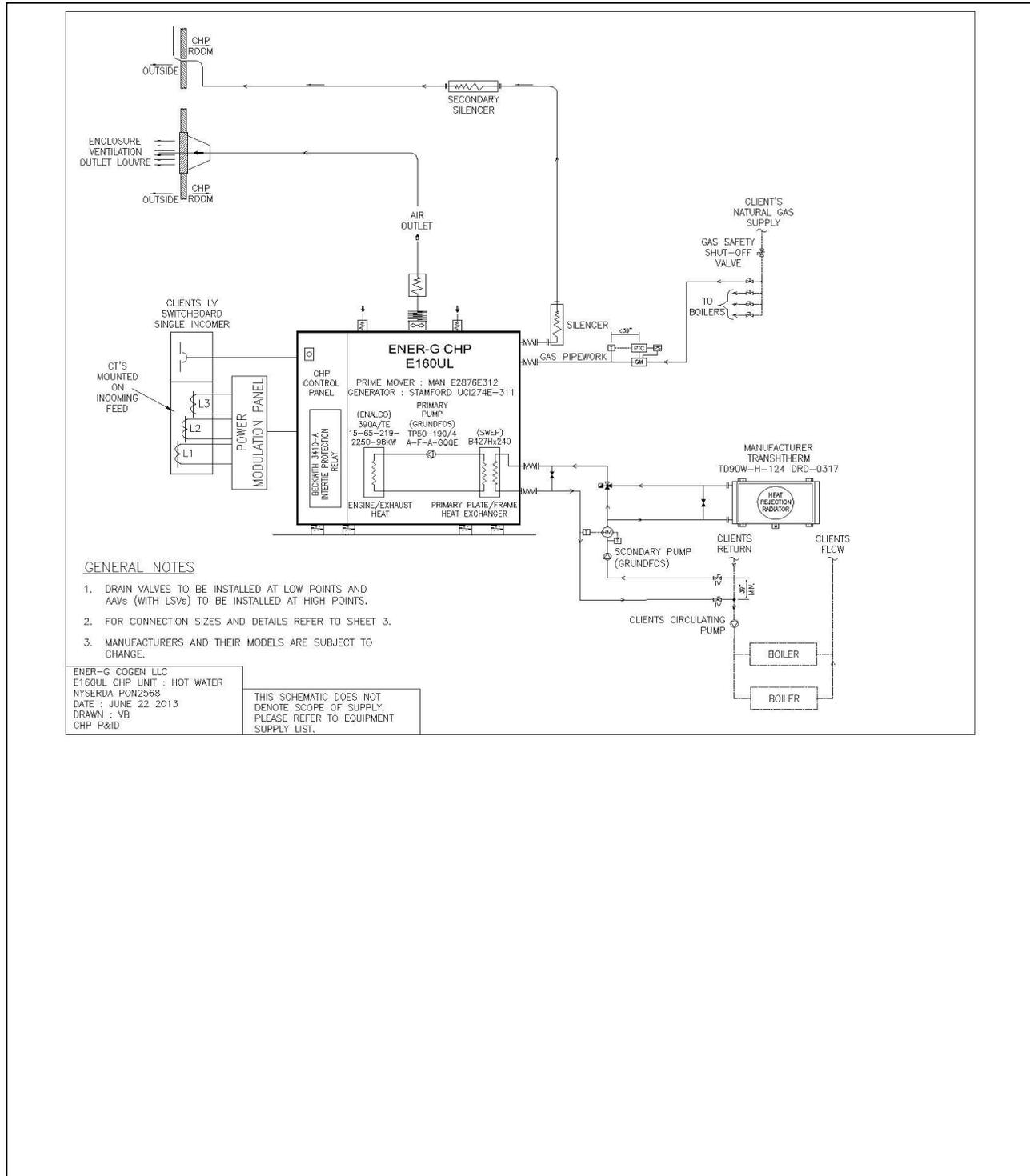
Vendor Statement

<p>ENER-G Rudox Inc, as part of the ENER-G Cogen International offers a range of efficient cogeneration and tri-generation systems from 80kwe to 2.1Mwe . Ener-G offers turnkey solutions, with in-house capabilities from Project Development, Financing, Design, Assembly, Delivery, Installation, Commissioning and on-going 24/7 maintenance with dedicated remote monitoring facilities based at our US Head office. We stock a full inventory of spare parts for all of our equipment.</p> <p>The demand for energy is ever growing whilst it is becoming increasingly expensive. Businesses and individuals are seeking to reduce their costs and carbon footprint. Ener-G Cogeneration can help.</p> <p>Ener-G offer flexible finance models, offering access to our energy solutions without the upfront capital expenditure normally required. ENER-G is 100% dedicated to the development of its products and markets and over the years has seen rapid growth, both organically and through acquisition, to achieve a strong global presence within the energy industry. Currently ENER-G operates in the UK, the USA, the Netherlands, Norway, Poland, Hungary, Lithuania, Spain, Italy, Romania, Mexico and South Africa, with partners across the globe.</p>

ENER-G Rudox Inc

ER160UL HW

160 kW





ENER-G Rudox Inc

ER160ULI HW

160 kW

Description

Type of prime mover	Number of prime mover units	Synchronous, Inverter or Induction	Type	Black-Start Capable	Qualification Status
RICE	1	Inverter	CHP-HW	Yes	Conditionally qualified

Performance

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	Hot Water to Building @ 180°F			NOx lbs/MWh
					MBtu/h	Return °F	Net System Efficiency % (HHV)	
100%	59°F	1667	153	32.30	734.2	160	81.17	0.3
	95°F	1667	153	32.30	734.2	160	81.17	0.3
75%	59°F	1320	114	30.63	597.5	160	80.90	0.3
	95°F	1320	114	30.63	597.5	160	80.90	0.3
50%	59°F	985	74	27.38	465.62	160	79.82	0.3
	95°F	985	74	27.38	465.62	160	79.82	0.3

Notes: 1 – All performance data based on fuel energy content of 1016 Btu/CF HHV

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*	11ft	18.7ft	8ft	11,464
Core system based on minimum width*	11ft	18.7ft	8ft	
Heat Rejection subsystem*	5ft	10ft	5ft	1,000
Largest part for delivery	4ft	12ft	7ft	11,464
Heaviest part for delivery	4ft	12ft	7ft	11,464

*Includes maintenance clearances.

Vendor Information

Ener-G Rudox Inc 180 East Union Avenue East Rutherford, NJ, 07072 (917)-281-0020, chp@energ-rudox.com www.energ-rudox.com

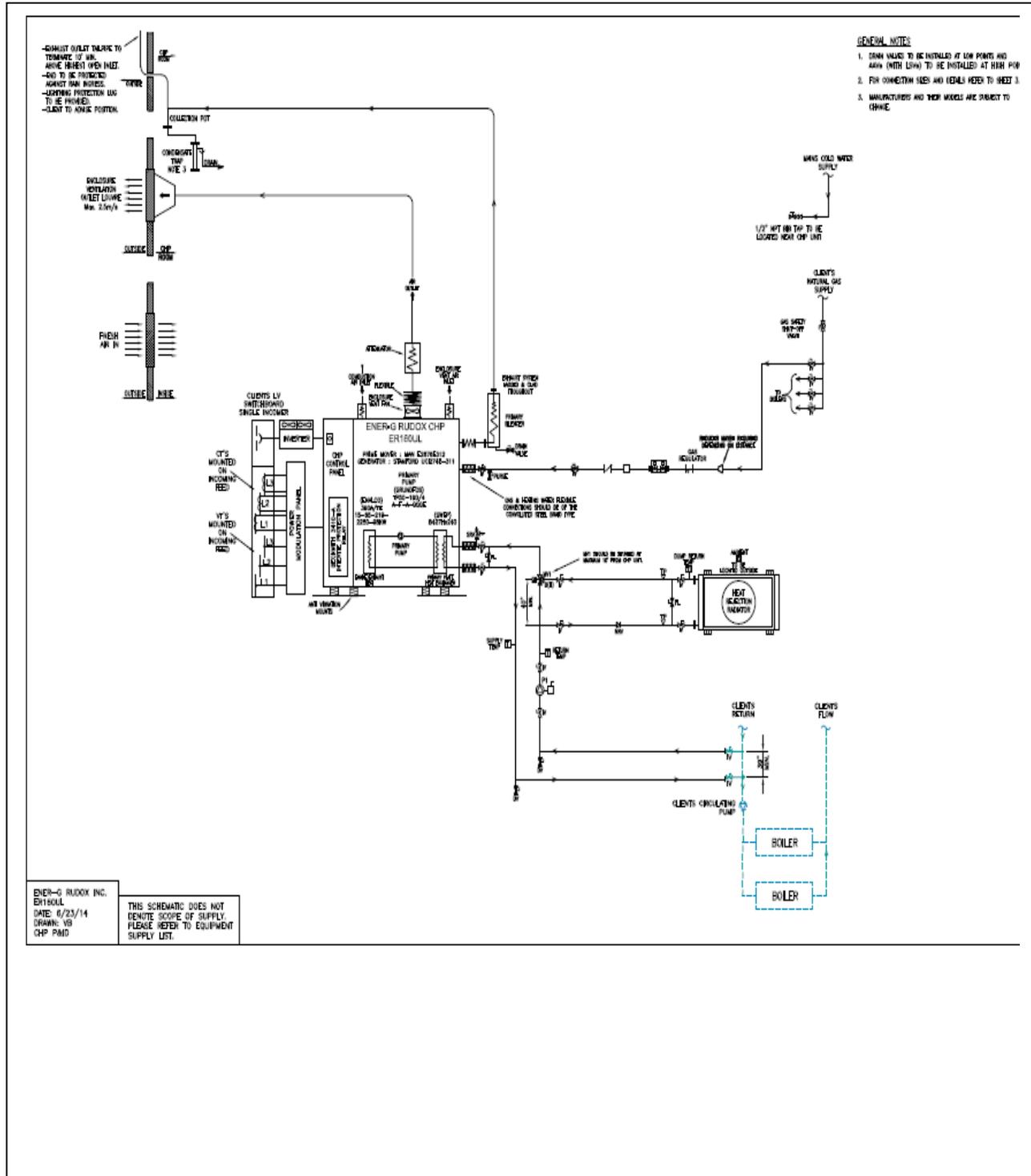
Vendor Statement

<p>ENER-G Rudox Inc, as part of the ENER-G Cogen International offers a range of efficient cogeneration and tri-generation systems from 80kwe to 2.1Mwe . Ener-G offers turnkey solutions, with in-house capabilities from Project Development, Financing, Design, Assembly, Delivery, Installation, Commissioning and on-going 24/7 maintenance with dedicated remote monitoring facilities based at our US Head office. We stock a full inventory of spare parts for all of our equipment.</p> <p>The demand for energy is ever growing whilst it is becoming increasingly expensive. Businesses and individuals are seeking to reduce their costs and carbon footprint. Ener-G Cogeneration can help.</p> <p>Ener-G offer flexible finance models, offering access to our energy solutions without the upfront capital expenditure normally required. ENER-G is 100% dedicated to the development of its products and markets and over the years has seen rapid growth, both organically and through acquisition, to achieve a strong global presence within the energy industry. Currently ENER-G operates in the UK, the USA, the Netherlands, Norway, Poland, Hungary, Lithuania, Spain, Italy, Romania, Mexico and South Africa, with partners across the globe.</p>

ENER-G Rudox Inc

ER160ULI HW

160 kW





ENER-G Rudox Inc

ER265UL HW

265 kW

Description

Type of prime mover	Number of prime mover units	Synchronous, Inverter or Induction	Type	Black-Start Capable	Qualification Status
RICE	1	Synchronous	CHP-HW	Yes	Conditionally qualified

Performance

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	Hot Water to Building @ 180°F			NOx lbs/MWh
					MBtu/h	Return °F	Net System Efficiency % (HHV)	
100%	59°F	3130	253	31.80	1265.5	160	81.62	0.3
	95°F	3130	253	31.80	1265.5	160	81.17	0.3
75%	59°F	2483	187	30.09	1035.7	160	81.53	0.3
	95°F	2483	187	30.09	1035.7	160	81.53	0.3
50%	59°F	1856	122	26.84	812.3	160	80.72	0.3
	95°F	1856	122	26.84	812.3	160	80.72	0.3

Notes: 1 – All performance data based on fuel energy content of 1016 Btu/CF HHV

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*	12ft	21.75ft	8ft	13,500
Core system based on minimum width*	12ft	21.75ft	8ft	
Heat Rejection subsystem*	5ft	16ft	5ft	1,300
Largest part for delivery	6ft	15ft	7ft	13,500
Heaviest part for delivery	6ft	15ft	7ft	13,500

*Includes maintenance clearances.

Vendor Information

Ener-G Rudox Inc 180 East Union Avenue East Rutherford, NJ, 07072 (917)-281-0020, chp@energ-rudox.com www.energ-rudox.com

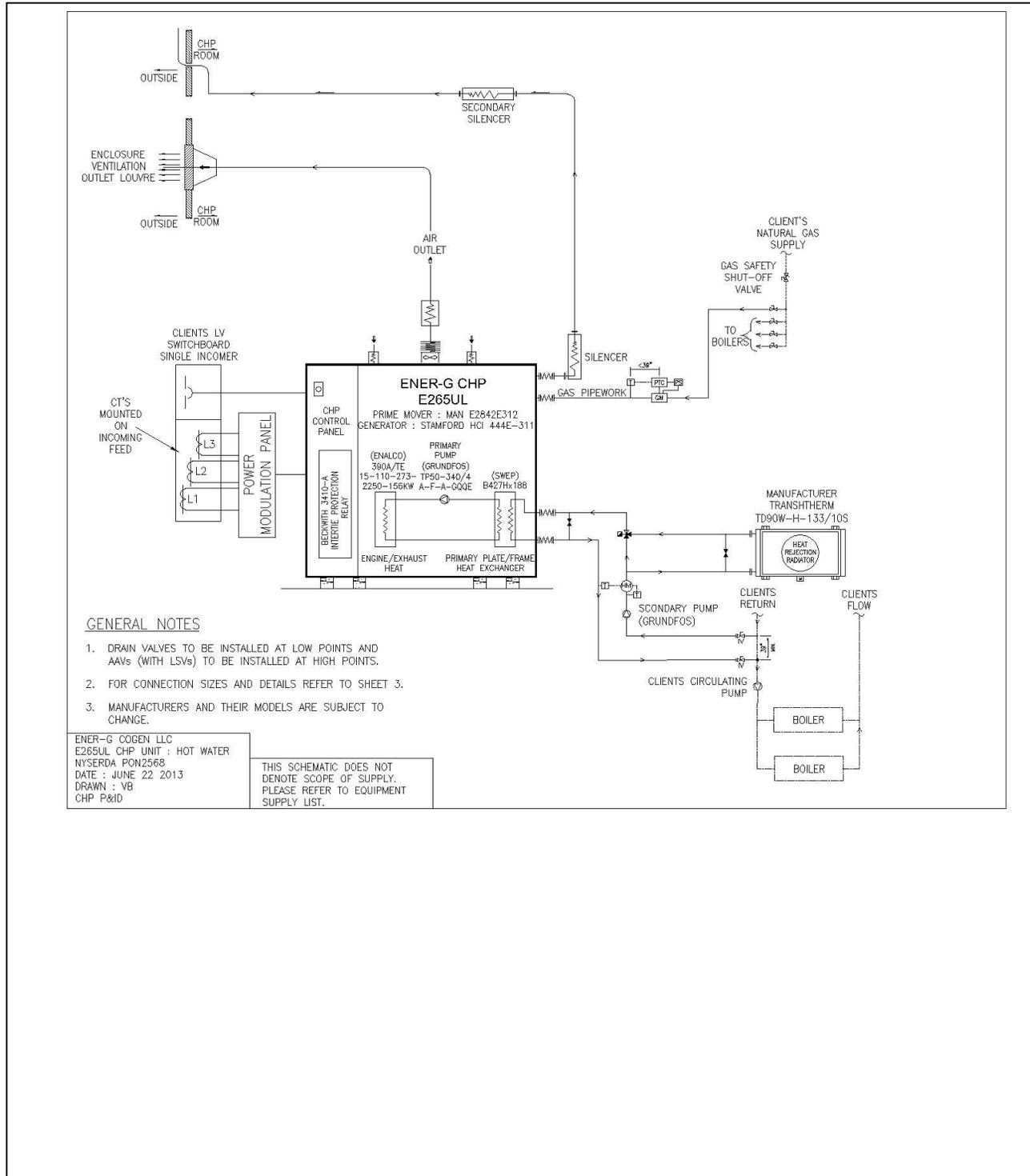
Vendor Statement

<p>ENER-G Rudox Inc, as part of the ENER-G Cogen International offers a range of efficient cogeneration and tri-generation systems from 80kwe to 2.1Mwe . Ener-G offers turnkey solutions, with in-house capabilities from Project Development, Financing, Design, Assembly, Delivery, Installation, Commissioning and on-going 24/7 maintenance with dedicated remote monitoring facilities based at our US Head office. We stock a full inventory of spare parts for all of our equipment.</p> <p>The demand for energy is ever growing whilst it is becoming increasingly expensive. Businesses and individuals are seeking to reduce their costs and carbon footprint. Ener-G Cogeneration can help.</p> <p>Ener-G offer flexible finance models, offering access to our energy solutions without the upfront capital expenditure normally required. ENER-G is 100% dedicated to the development of its products and markets and over the years has seen rapid growth, both organically and through acquisition, to achieve a strong global presence within the energy industry. Currently ENER-G operates in the UK, the USA, the Netherlands, Norway, Poland, Hungary, Lithuania, Spain, Italy, Romania, Mexico and South Africa, with partners across the globe.</p>

ENER-G Rudox Inc

ER265UL HW

265 kW



GENERAL NOTES

1. DRAIN VALVES TO BE INSTALLED AT LOW POINTS AND AAVs (WITH LSVs) TO BE INSTALLED AT HIGH POINTS.
2. FOR CONNECTION SIZES AND DETAILS REFER TO SHEET 3.
3. MANUFACTURERS AND THEIR MODELS ARE SUBJECT TO CHANGE.

ENER-G COGEN LLC
 E265UL CHP UNIT : HOT WATER
 NYSERDA PON2568
 DATE : JUNE 22 2013
 DRAWN : VB
 CHP P&ID

THIS SCHEMATIC DOES NOT
 DENOTE SCOPE OF SUPPLY.
 PLEASE REFER TO EQUIPMENT
 SUPPLY LIST.



ENER-G Rudox Inc

ER265ULI HW

265 kW

Description

Type of prime mover	Number of prime mover units	Synchronous, Inverter or Induction	Type	Black-Start Capable	Qualification Status
RICE	1	Inverter	CHP-HW	Yes	Conditionally qualified

Performance

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	Hot Water to Building @ 180°F			NOx lbs/MWh
					MBtu/h	Return °F	Net System Efficiency % (HHV)	
100%	59°F	3130	252	31.80	1265.5	160	81.62	0.3
	95°F	3130	252	31.80	1265.5	160	81.17	0.3
75%	59°F	2483	186	30.09	1035.7	160	81.53	0.3
	95°F	2483	186	30.09	1035.7	160	81.53	0.3
50%	59°F	1856	121	26.84	812.3	160	80.72	0.3
	95°F	1856	121	26.84	812.3	160	80.72	0.3

Notes: 1 – All performance data based on fuel energy content of 1016 Btu/CF HHV

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*	12ft	21.75ft	8ft	13,500
Core system based on minimum width*	12ft	21.75ft	8ft	
Heat Rejection subsystem*	5ft	16ft	5ft	1,300
Largest part for delivery	6ft	15ft	7ft	13,500
Heaviest part for delivery	6ft	15ft	7ft	13,500

*Includes maintenance clearances.

Vendor Information

<p>Ener-G Rudox Inc 180 East Union Avenue East Rutherford, NJ, 07072 (917)-281-0020, chp@energ-rudox.com www.energ-rudox.com</p>
--

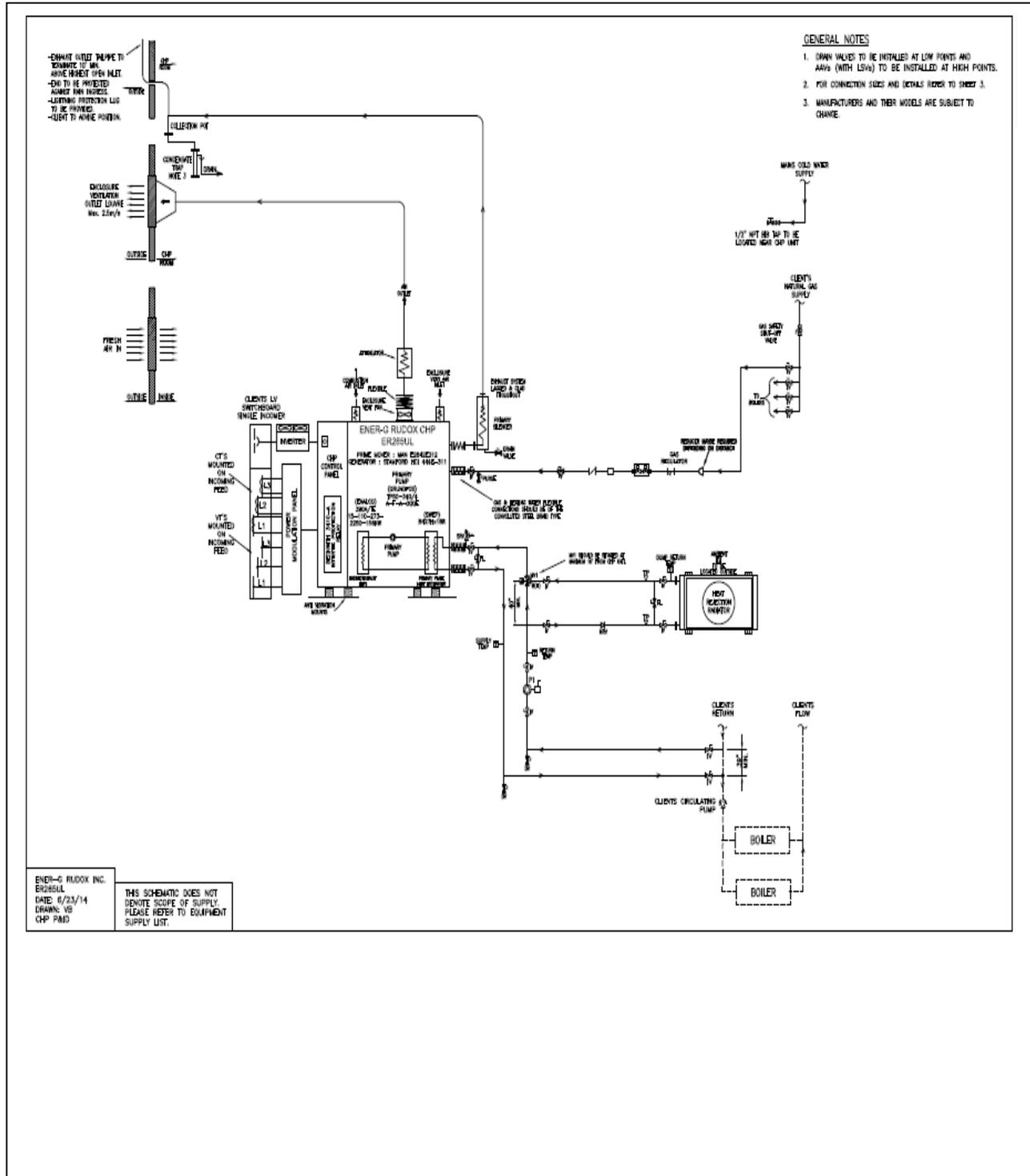
Vendor Statement

<p>ENER-G Rudox Inc, as part of the ENER-G Cogen International offers a range of efficient cogeneration and tri-generation systems from 80kwe to 2.1Mwe . Ener-G offers turnkey solutions, with in-house capabilities from Project Development, Financing, Design, Assembly, Delivery, Installation, Commissioning and on-going 24/7 maintenance with dedicated remote monitoring facilities based at our US Head office. We stock a full inventory of spare parts for all of our equipment.</p> <p>The demand for energy is ever growing whilst it is becoming increasingly expensive. Businesses and individuals are seeking to reduce their costs and carbon footprint. Ener-G Cogeneration can help.</p> <p>Ener-G offer flexible finance models, offering access to our energy solutions without the upfront capital expenditure normally required. ENER-G is 100% dedicated to the development of its products and markets and over the years has seen rapid growth, both organically and through acquisition, to achieve a strong global presence within the energy industry. Currently ENER-G operates in the UK, the USA, the Netherlands, Norway, Poland, Hungary, Lithuania, Spain, Italy, Romania, Mexico and South Africa, with partners across the globe.</p>

ENER-G Rudox Inc

ER265ULI HW

265 kW





ENER-G Rudox Inc

ER385UL HW

385 kW

Description

Type of prime mover	Number of prime mover units	Synchronous, Inverter or Induction	Type	Black-Start Capable	Qualification Status
RICE	1	Synchronous	CHP-HW	Yes	Conditionally qualified

Performance

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	Hot Water to Building @ 180°F			NOx lbs/MWh
					MBtu/h	Return °F	Net System Efficiency % (HHV)	
100%	59°F	3840	370	33.78	1568.1	160	79.11	1.2
	95°F	3840	370	33.78	1568.1	160	79.11	1.2
75%	59°F	3043	275	31.98	1267.2	160	78.19	1.2
	95°F	3043	275	31.98	1267.2	160	78.19	1.2
50%	59°F	2276	180	28.46	975.4	160	76.03	1.2
	95°F	2276	180	28.46	975.4	160	76.03	1.2

Notes: 1 – All performance data based on fuel energy content of 1016 Btu/CF HHV

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*	15ft	23.0ft	8ft	15,500
Core system based on minimum width*	15ft	23.0ft	8ft	
Heat Rejection subsystem*	5ft	19ft	5ft	1,400
Largest part for delivery	6ft	15ft	7ft	15,500
Heaviest part for delivery	6ft	15ft	7ft	15,500

*Includes maintenance clearances.

Vendor Information

Ener-G Rudox Inc 180 East Union Avenue East Rutherford, NJ, 07072 (917)-281-0020, chp@energ-rudox.com www.energ-rudox.com

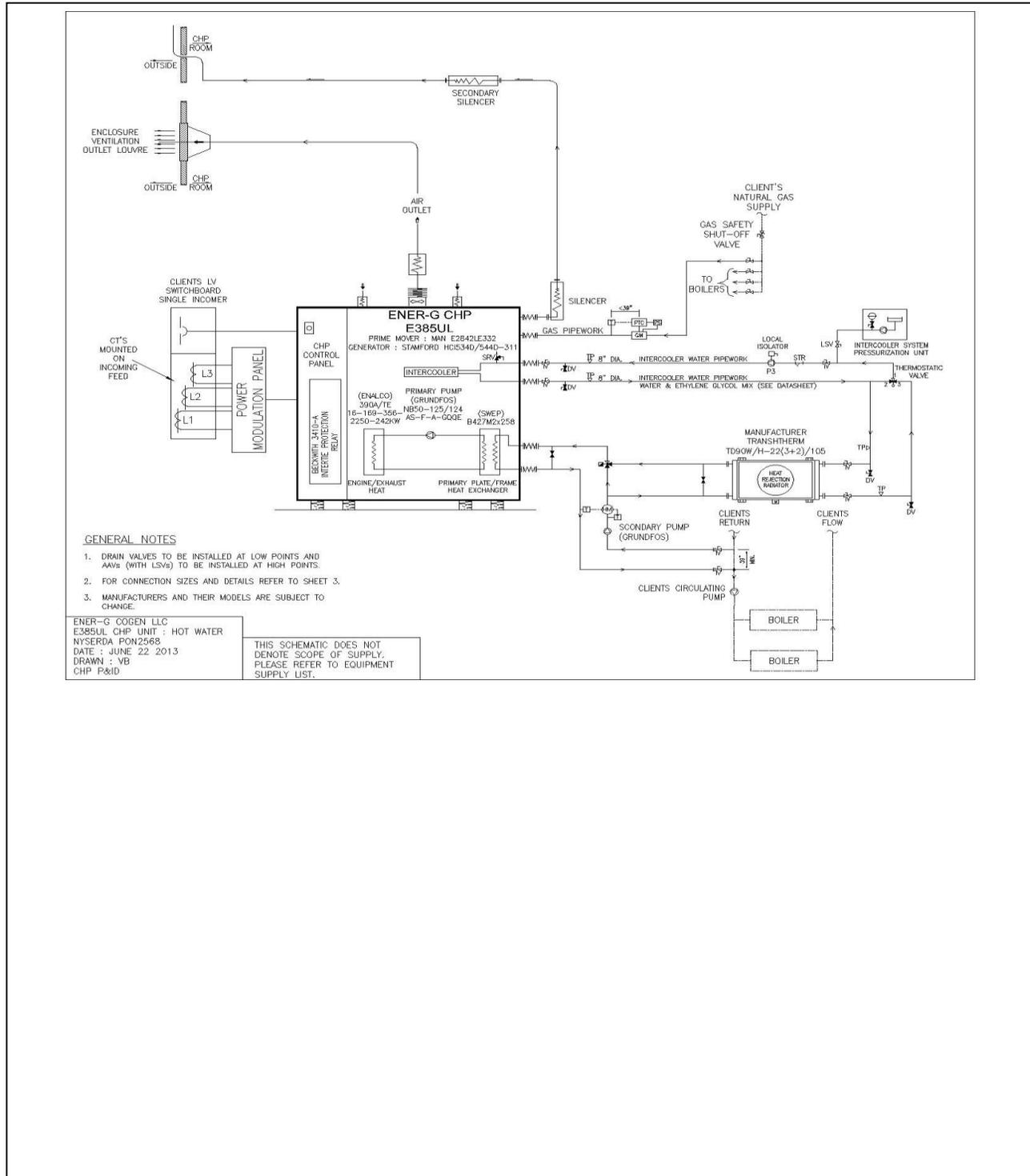
Vendor Statement

<p>ENER-G Rudox Inc, as part of the ENER-G Cogen International offers a range of efficient cogeneration and tri-generation systems from 80kwe to 2.1Mwe . Ener-G offers turnkey solutions, with in-house capabilities from Project Development, Financing, Design, Assembly, Delivery, Installation, Commissioning and on-going 24/7 maintenance with dedicated remote monitoring facilities based at our US Head office. We stock a full inventory of spare parts for all of our equipment.</p> <p>The demand for energy is ever growing whilst it is becoming increasingly expensive. Businesses and individuals are seeking to reduce their costs and carbon footprint. Ener-G Cogeneration can help.</p> <p>Ener-G offer flexible finance models, offering access to our energy solutions without the upfront capital expenditure normally required. ENER-G is 100% dedicated to the development of its products and markets and over the years has seen rapid growth, both organically and through acquisition, to achieve a strong global presence within the energy industry. Currently ENER-G operates in the UK, the USA, the Netherlands, Norway, Poland, Hungary, Lithuania, Spain, Italy, Romania, Mexico and South Africa, with partners across the globe.</p>

ENER-G Rudox Inc

ER385UL HW

385 kW





ENER-G Rudox Inc

ER385ULI HW

385 kW

Description

Type of prime mover	Number of prime mover units	Synchronous, Inverter or Induction	Type	Black-Start Capable	Qualification Status
RICE	1	Inverter	CHP-HW	Yes	Conditionally qualified

Performance

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	Hot Water to Building @ 180°F			NOx lbs/MWh
					MBtu/h	Return °F	Net System Efficiency % (HHV)	
100%	59°F	3840	368	33.78	1568.1	160	79.11	1.2
	95°F	3840	368	33.78	1568.1	160	79.11	1.2
75%	59°F	3043	273	31.98	1267.2	160	78.19	1.2
	95°F	3043	273	31.98	1267.2	160	78.19	1.2
50%	59°F	2276	178	28.46	975.4	160	76.03	1.2
	95°F	2276	178	28.46	975.4	160	76.03	1.2

Notes: 1 – All performance data based on fuel energy content of 1016 Btu/CF HHV

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*	15ft	23.0ft	8ft	15,500
Core system based on minimum width*	15ft	23.0ft	8ft	
Heat Rejection subsystem*	5ft	19ft	5ft	1,400
Largest part for delivery	6ft	15ft	7ft	15,500
Heaviest part for delivery	6ft	15ft	7ft	15,500

*Includes maintenance clearances.

Vendor Information

Ener-G Rudox Inc 180 East Union Avenue East Rutherford, NJ, 07072 (917)-281-0020, chp@energ-rudox.com www.energ-rudox.com

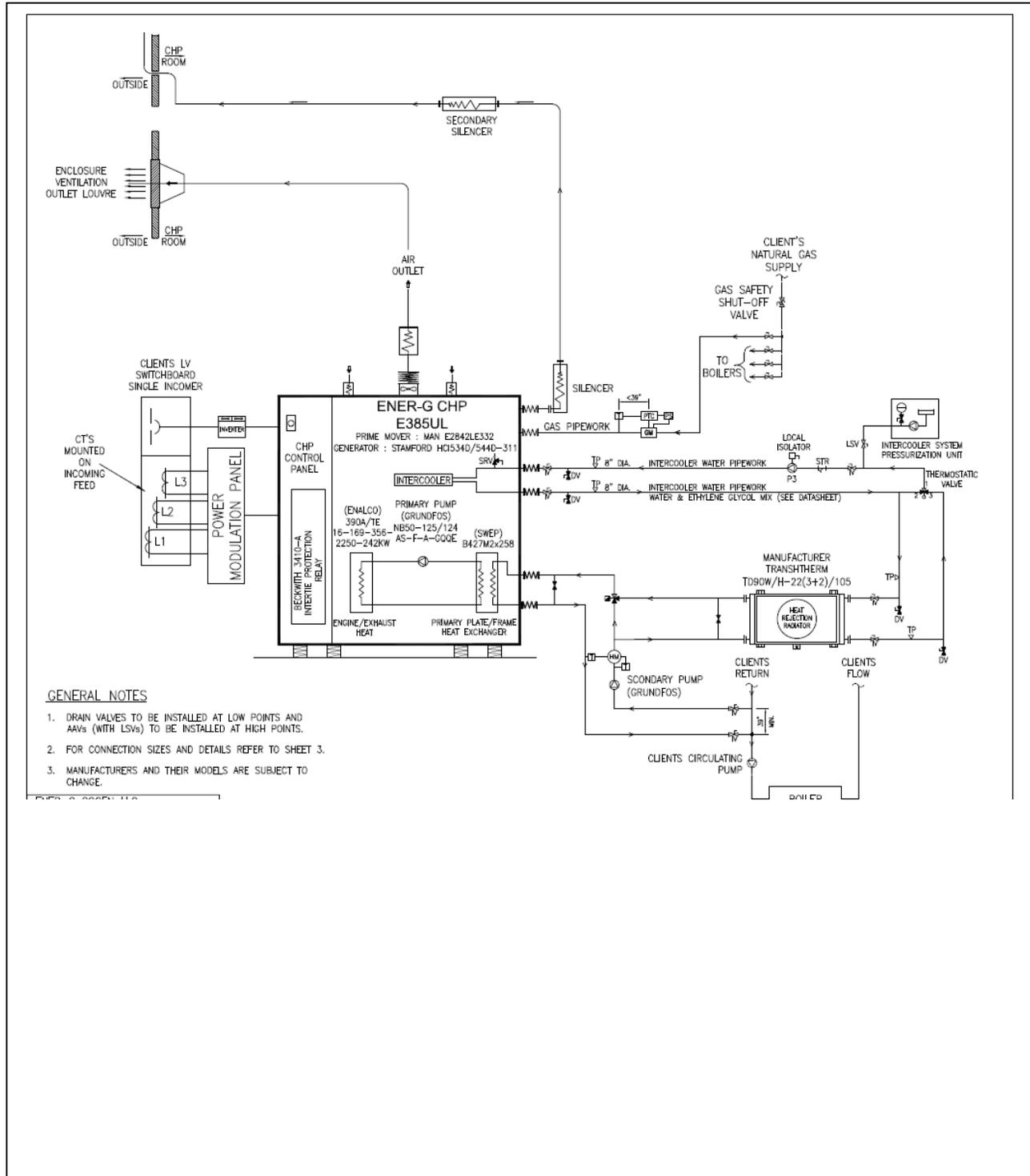
Vendor Statement

<p>ENER-G Rudox Inc, as part of the ENER-G Cogen International offers a range of efficient cogeneration and tri-generation systems from 80kwe to 2.1Mwe . Ener-G offers turnkey solutions, with in-house capabilities from Project Development, Financing, Design, Assembly, Delivery, Installation, Commissioning and on-going 24/7 maintenance with dedicated remote monitoring facilities based at our US Head office. We stock a full inventory of spare parts for all of our equipment.</p> <p>The demand for energy is ever growing whilst it is becoming increasingly expensive. Businesses and individuals are seeking to reduce their costs and carbon footprint. Ener-G Cogeneration can help.</p> <p>Ener-G offer flexible finance models, offering access to our energy solutions without the upfront capital expenditure normally required. ENER-G is 100% dedicated to the development of its products and markets and over the years has seen rapid growth, both organically and through acquisition, to achieve a strong global presence within the energy industry. Currently ENER-G operates in the UK, the USA, the Netherlands, Norway, Poland, Hungary, Lithuania, Spain, Italy, Romania, Mexico and South Africa, with partners across the globe.</p>

ENER-G Rudox Inc

ER385ULI HW

385 kW





ENER-G Rudox Inc

ER555UL HW

555 kW

Description

Type of prime mover	Number of prime mover units	Synchronous, Inverter or Induction	Type	Black-Start Capable	Qualification Status
RICE	1	Synchronous	CHP-HW	Yes	Conditionally qualified

Performance

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	Hot Water to Building @ 180°F			NOx lbs/MWh
					MBtu/h	Return °F	Net System Efficiency % (HHV)	
100%	59°F	5547	547	34.05	2245.6	160	79.01	1.2
	95°F	5547	547	34.05	2245.6	160	79.01	1.2
75%	59°F	4257	408	33.33	1749.1	160	78.91	1.2
	95°F	4257	408	33.33	1749.1	160	78.91	1.2
50%	59°F	2984	268	31.62	1274.4	160	79.01	1.2
	95°F	2984	268	31.62	1274.4	160	79.01	1.2

Notes: 1 – All performance data based on fuel energy content of 1016 Btu/CF HHV

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*	15ft	23.0ft	8.5ft	23,300
Core system based on minimum width*	15ft	23.0ft	8.5ft	
Heat Rejection subsystem*	5ft	20ft	5ft	1,400
Largest part for delivery	7.5ft	16ft	8.5ft	23,300
Heaviest part for delivery	7.5ft	16ft	8.5ft	23,300

*Includes maintenance clearances.

Vendor Information

<p>Ener-G Rudox Inc 180 East Union Avenue East Rutherford, NJ, 07072 (917)-281-0020, chp@energ-rudox.com www.energ-rudox.com</p>
--

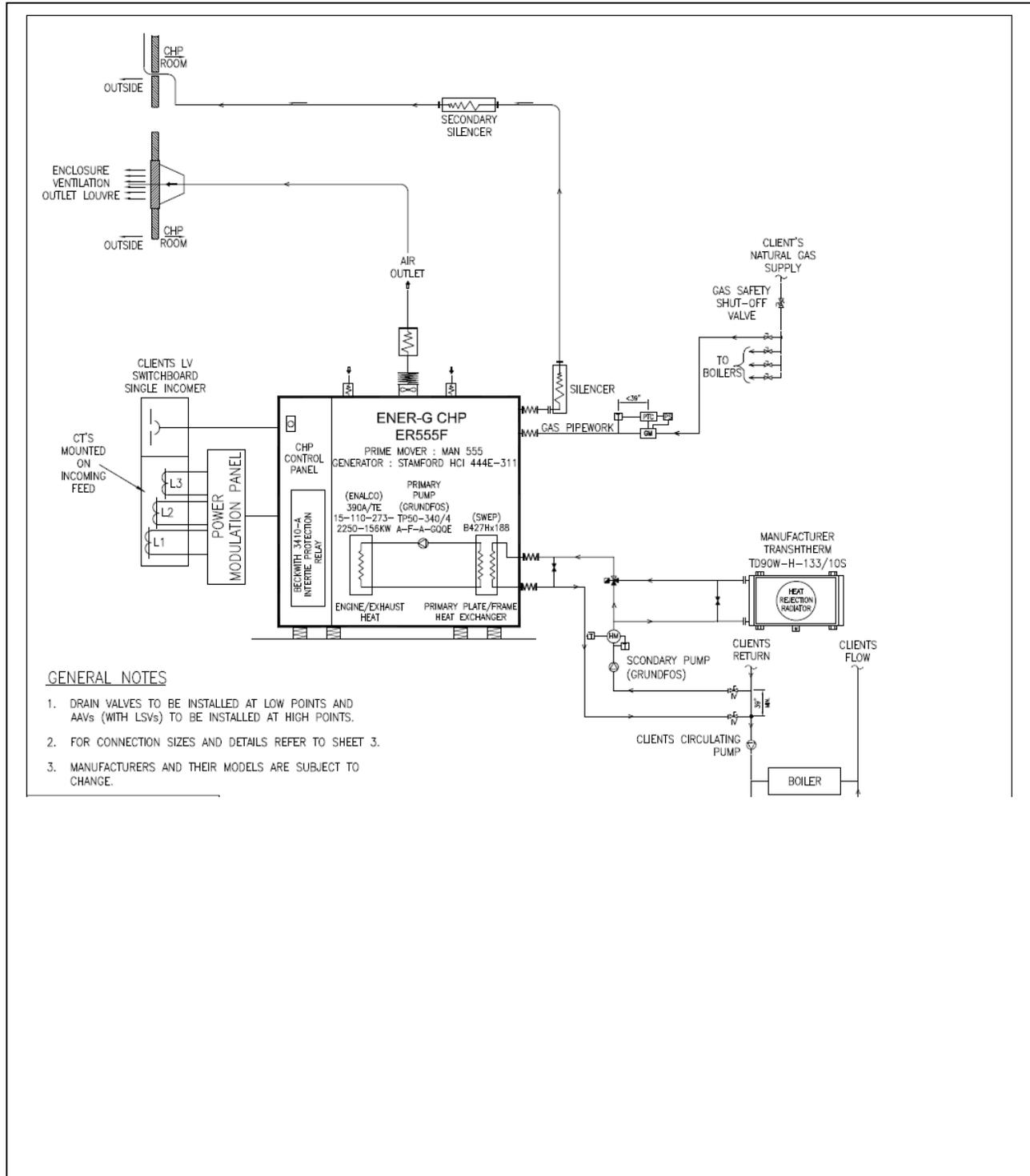
Vendor Statement

<p>ENER-G Rudox Inc, as part of the ENER-G Cogen International offers a range of efficient cogeneration and tri-generation systems from 80kwe to 2.1Mwe . Ener-G offers turnkey solutions, with in-house capabilities from Project Development, Financing, Design, Assembly, Delivery, Installation, Commissioning and on-going 24/7 maintenance with dedicated remote monitoring facilities based at our US Head office. We stock a full inventory of spare parts for all of our equipment.</p> <p>The demand for energy is ever growing whilst it is becoming increasingly expensive. Businesses and individuals are seeking to reduce their costs and carbon footprint. Ener-G Cogeneration can help.</p> <p>Ener-G offer flexible finance models, offering access to our energy solutions without the upfront capital expenditure normally required. ENER-G is 100% dedicated to the development of its products and markets and over the years has seen rapid growth, both organically and through acquisition, to achieve a strong global presence within the energy industry. Currently ENER-G operates in the UK, the USA, the Netherlands, Norway, Poland, Hungary, Lithuania, Spain, Italy, Romania, Mexico and South Africa, with partners across the globe.</p>

ENER-G Rudox Inc

ER555UL HW

555 kW





ENER-G Rudox Inc

ER555ULI HW

555 kW

Description

Type of prime mover	Number of prime mover units	Synchronous, Inverter or Induction	Type	Black-Start Capable	Qualification Status
RICE	1	Inverter	CHP-HW	Yes	Conditionally qualified

Performance

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	Hot Water to Building @ 180°F			NOx lbs/MWh
					MBtu/h	Return °F	Net System Efficiency % (HHV)	
100%	59°F	5547	544	34.05	2245.6	160	79.01	1.2
	95°F	5547	544	34.05	2245.6	160	79.01	1.2
75%	59°F	4257	405	33.33	1749.1	160	78.91	1.2
	95°F	4257	405	33.33	1749.1	160	78.91	1.2
50%	59°F	2984	265	31.62	1274.4	160	79.01	1.2
	95°F	2984	265	31.62	1274.4	160	79.01	1.2

Notes: 1 – All performance data based on fuel energy content of 1016 Btu/CF HHV

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*	15ft	23.0ft	8.5ft	23,300
Core system based on minimum width*	15ft	23.0ft	8.5ft	
Heat Rejection subsystem*	5ft	20ft	5ft	1,400
Largest part for delivery	7.5ft	16ft	8.5ft	23,300
Heaviest part for delivery	7.5ft	16ft	8.5ft	23,300

*Includes maintenance clearances.

Vendor Information

Ener-G Rudox Inc 180 East Union Avenue East Rutherford, NJ, 07072 (917)-281-0020, chp@energ-rudox.com www.energ-rudox.com

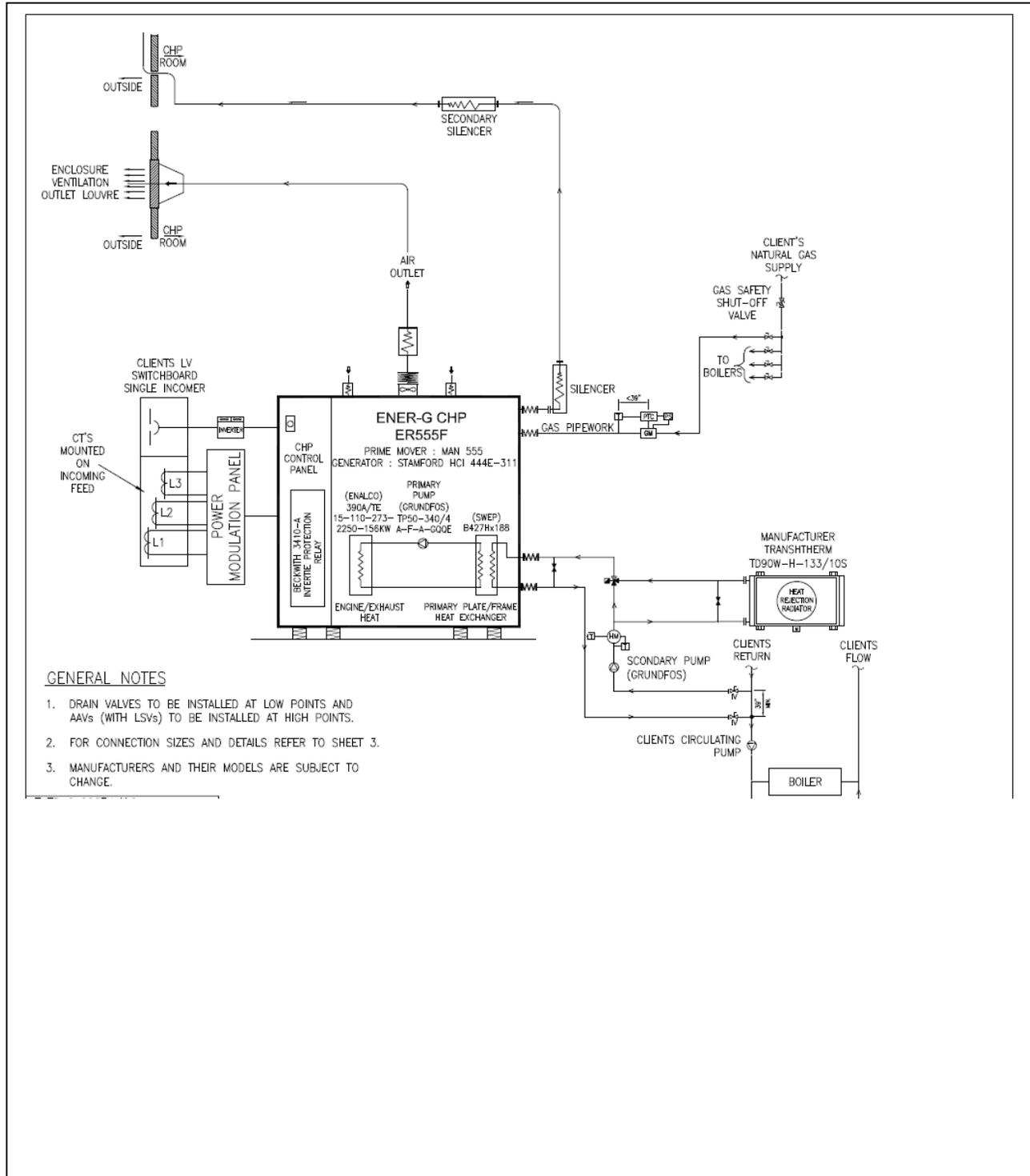
Vendor Statement

<p>ENER-G Rudox Inc, as part of the ENER-G Cogen International offers a range of efficient cogeneration and tri-generation systems from 80kwe to 2.1Mwe . Ener-G offers turnkey solutions, with in-house capabilities from Project Development, Financing, Design, Assembly, Delivery, Installation, Commissioning and on-going 24/7 maintenance with dedicated remote monitoring facilities based at our US Head office. We stock a full inventory of spare parts for all of our equipment.</p> <p>The demand for energy is ever growing whilst it is becoming increasingly expensive. Businesses and individuals are seeking to reduce their costs and carbon footprint. Ener-G Cogeneration can help.</p> <p>Ener-G offer flexible finance models, offering access to our energy solutions without the upfront capital expenditure normally required. ENER-G is 100% dedicated to the development of its products and markets and over the years has seen rapid growth, both organically and through acquisition, to achieve a strong global presence within the energy industry. Currently ENER-G operates in the UK, the USA, the Netherlands, Norway, Poland, Hungary, Lithuania, Spain, Italy, Romania, Mexico and South Africa, with partners across the globe.</p>

ENER-G Rudox Inc

ER555ULI HW

555 kW





ENER-G Rudox Inc

ER760F HW

760 kW

Description

Type of prime mover	Number of prime mover units	Synchronous, Inverter or Induction	Type	Black-Start Capable	Qualification Status
RICE	1	Synchronous	CHP-HW	Yes	Conditionally qualified

Performance

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	Hot Water to Building @ 180°F			NOx lbs/MWh
					MBtu/h	Return °F	Net System Efficiency % (HHV)	
100%	59°F	7016	750	37.12	2572.1	160	77.77	1.2
	95°F	7016	750	37.12	2572.1	160	77.77	1.2
75%	59°F	5500	560	35.49	2052.4	160	76.93	1.2
	95°F	5500	560	35.49	2052.4	160	76.93	1.2
50%	59°F	3908	369	33.33	1526.1	160	76.66	1.2
	95°F	3908	369	33.33	1526.1	160	76.66	1.2

Notes: 1 – All performance data based on fuel energy content of 1016 Btu/CF HHV

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*		20ft	43.5ft	15ft
Core system based on minimum width*		20ft	43.5ft	15ft
Heat Rejection subsystem*		5ft	23ft	5ft
Largest part for delivery		10ft	40ft	11ft
Heaviest part for delivery		10ft	40ft	11ft

*Includes maintenance clearances.

Vendor Information

Ener-G Rudox Inc 180 East Union Avenue East Rutherford, NJ, 07072 (917)-281-0020, chp@energ-rudox.com www.energ-rudox.com

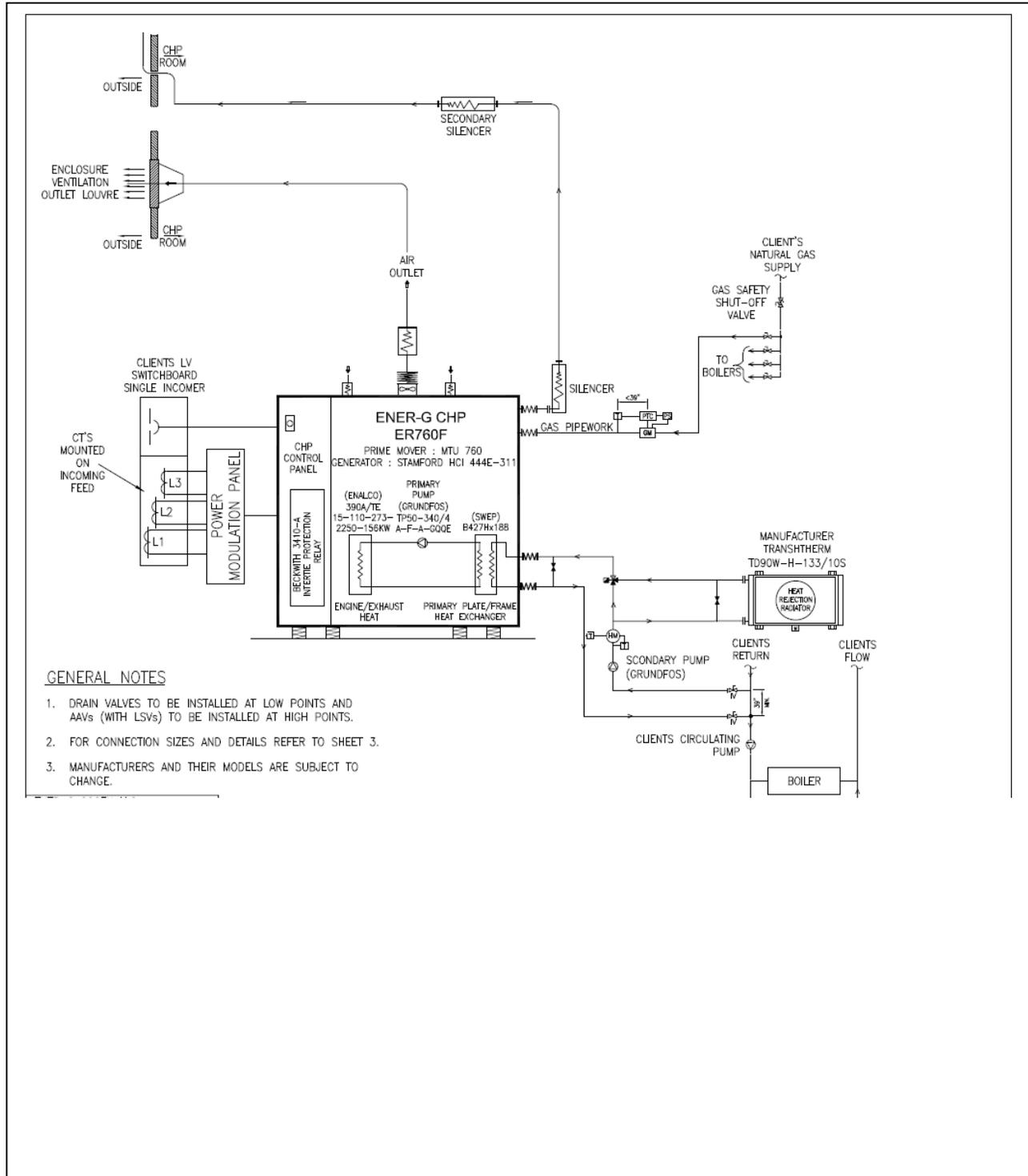
Vendor Statement

<p>ENER-G Rudox Inc, as part of the ENER-G Cogen International offers a range of efficient cogeneration and tri-generation systems from 80kwe to 2.1Mwe . Ener-G offers turnkey solutions, with in-house capabilities from Project Development, Financing, Design, Assembly, Delivery, Installation, Commissioning and on-going 24/7 maintenance with dedicated remote monitoring facilities based at our US Head office. We stock a full inventory of spare parts for all of our equipment.</p> <p>The demand for energy is ever growing whilst it is becoming increasingly expensive. Businesses and individuals are seeking to reduce their costs and carbon footprint. Ener-G Cogeneration can help.</p> <p>Ener-G offer flexible finance models, offering access to our energy solutions without the upfront capital expenditure normally required. ENER-G is 100% dedicated to the development of its products and markets and over the years has seen rapid growth, both organically and through acquisition, to achieve a strong global presence within the energy industry. Currently ENER-G operates in the UK, the USA, the Netherlands, Norway, Poland, Hungary, Lithuania, Spain, Italy, Romania, Mexico and South Africa, with partners across the globe.</p>

ENER-G Rudox Inc

ER760F HW

760 kW





ENER-G Rudox Inc

ER760FI HW

760 kW

Description

Type of prime mover	Number of prime mover units	Synchronous, Inverter or Induction	Type	Black-Start Capable	Qualification Status
RICE	1	Inverter	CHP-HW	Yes	Conditionally qualified

Performance

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	Hot Water to Building @ 180°F			NOx lbs/MWh
					MBtu/h	Return °F	Net System Efficiency % (HHV)	
100%	59°F	7016	745	37.12	2572.1	160	77.77	1.2
	95°F	7016	745	37.12	2572.1	160	77.77	1.2
75%	59°F	5500	555	35.49	2052.4	160	76.93	1.2
	95°F	5500	555	35.49	2052.4	160	76.93	1.2
50%	59°F	3908	364	33.33	1526.1	160	76.66	1.2
	95°F	3908	369	33.33	1526.1	160	76.66	1.2

Notes: 1 – All performance data based on fuel energy content of 1016 Btu/CF HHV

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*		20ft	43.5ft	15ft
Core system based on minimum width*		20ft	43.5ft	15ft
Heat Rejection subsystem*		5ft	23ft	5ft
Largest part for delivery		10ft	40ft	11ft
Heaviest part for delivery		10ft	40ft	11ft

*Includes maintenance clearances.

Vendor Information

Ener-G Rudox Inc 180 East Union Avenue East Rutherford, NJ, 07072 (917)-281-0020, chp@energ-rudox.com www.energ-rudox.com

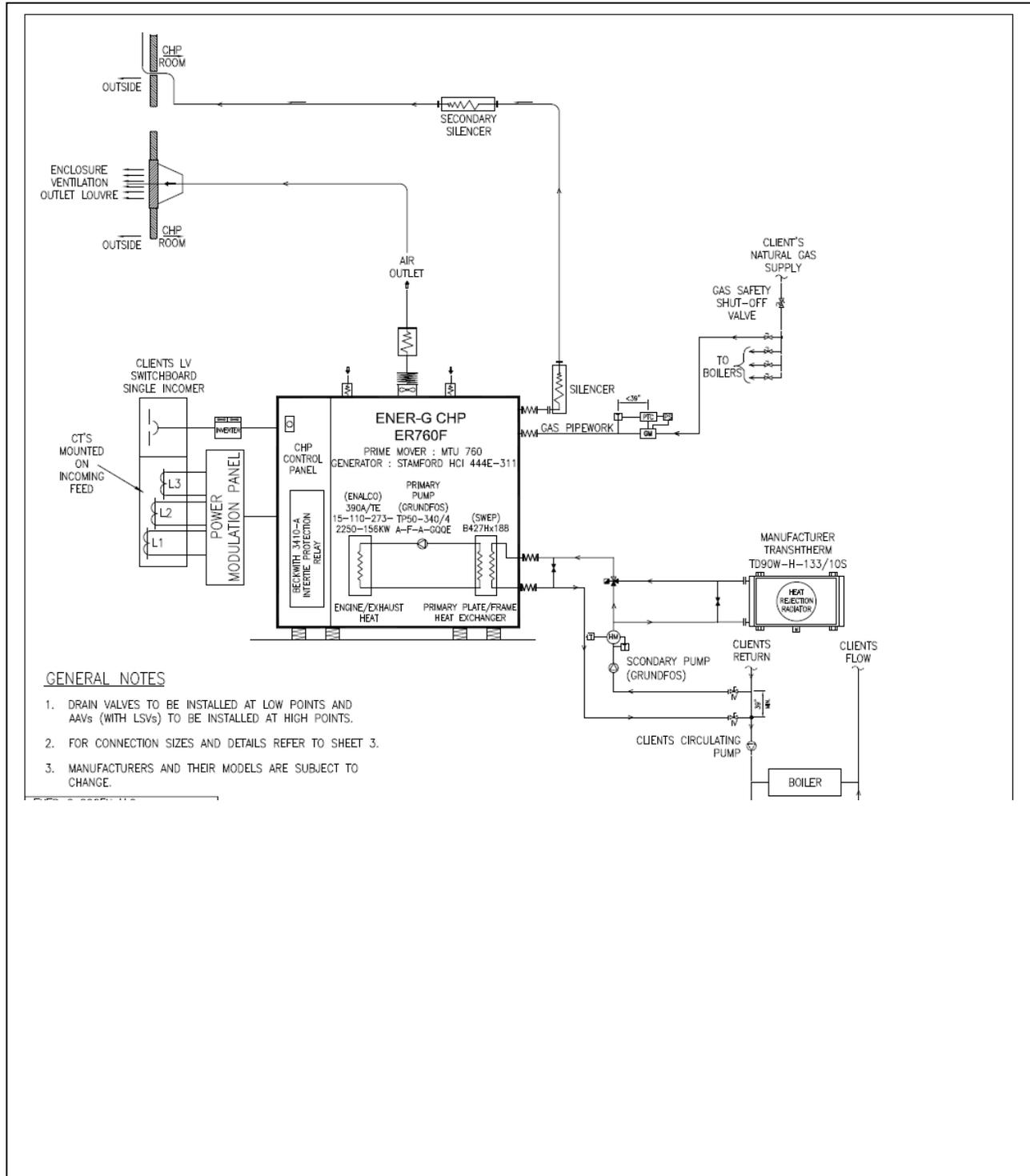
Vendor Statement

<p>ENER-G Rudox Inc, as part of the ENER-G Cogen International offers a range of efficient cogeneration and tri-generation systems from 80kwe to 2.1Mwe . Ener-G offers turnkey solutions, with in-house capabilities from Project Development, Financing, Design, Assembly, Delivery, Installation, Commissioning and on-going 24/7 maintenance with dedicated remote monitoring facilities based at our US Head office. We stock a full inventory of spare parts for all of our equipment.</p> <p>The demand for energy is ever growing whilst it is becoming increasingly expensive. Businesses and individuals are seeking to reduce their costs and carbon footprint. Ener-G Cogeneration can help.</p> <p>Ener-G offer flexible finance models, offering access to our energy solutions without the upfront capital expenditure normally required. ENER-G is 100% dedicated to the development of its products and markets and over the years has seen rapid growth, both organically and through acquisition, to achieve a strong global presence within the energy industry. Currently ENER-G operates in the UK, the USA, the Netherlands, Norway, Poland, Hungary, Lithuania, Spain, Italy, Romania, Mexico and South Africa, with partners across the globe.</p>

ENER-G Rudox Inc

ER760FI HW

760 kW



GENERAL NOTES

1. DRAIN VALVES TO BE INSTALLED AT LOW POINTS AND AAVs (WITH LSVs) TO BE INSTALLED AT HIGH POINTS.
2. FOR CONNECTION SIZES AND DETAILS REFER TO SHEET 3.
3. MANUFACTURERS AND THEIR MODELS ARE SUBJECT TO CHANGE.



ENER-G Rudox Inc

ER840F HW

840 kW

Description

Type of prime mover	Number of prime mover units	Synchronous, Inverter or Induction	Type	Black-Start Capable	Qualification Status
RICE	1	Synchronous	CHP-HW	Yes	Conditionally qualified

Performance

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	Hot Water to Building @ 180°F			NOx lbs/MWh
					MBtu/h	Return °F	Net System Efficiency % (HHV)	
100%	59°F	7634	830	37.56	2784.7	160	78.02	1.2
	95°F	7634	830	37.56	2784.7	160	78.02	1.2
75%	59°F	5970	620	36.03	2209.0	160	77.12	1.2
	95°F	5970	620	36.03	2209.0	160	77.12	1.2
50%	59°F	4237	410	33.87	1634.2	160	76.67	1.2
	95°F	4237	410	33.87	1634.2	160	76.67	1.2

Notes: 1 – All performance data based on fuel energy content of 1016 Btu/CF HHV

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*		20ft	43.5ft	15ft
Core system based on minimum width*		20ft	43.5ft	15ft
Heat Rejection subsystem*		5ft	23ft	5ft
Largest part for delivery		10ft	40ft	11ft
Heaviest part for delivery		10ft	40ft	11ft

*Includes maintenance clearances.

Vendor Information

Ener-G Rudox Inc 180 East Union Avenue East Rutherford, NJ, 07072 (917)-281-0020, chp@energ-rudox.com www.energ-rudox.com

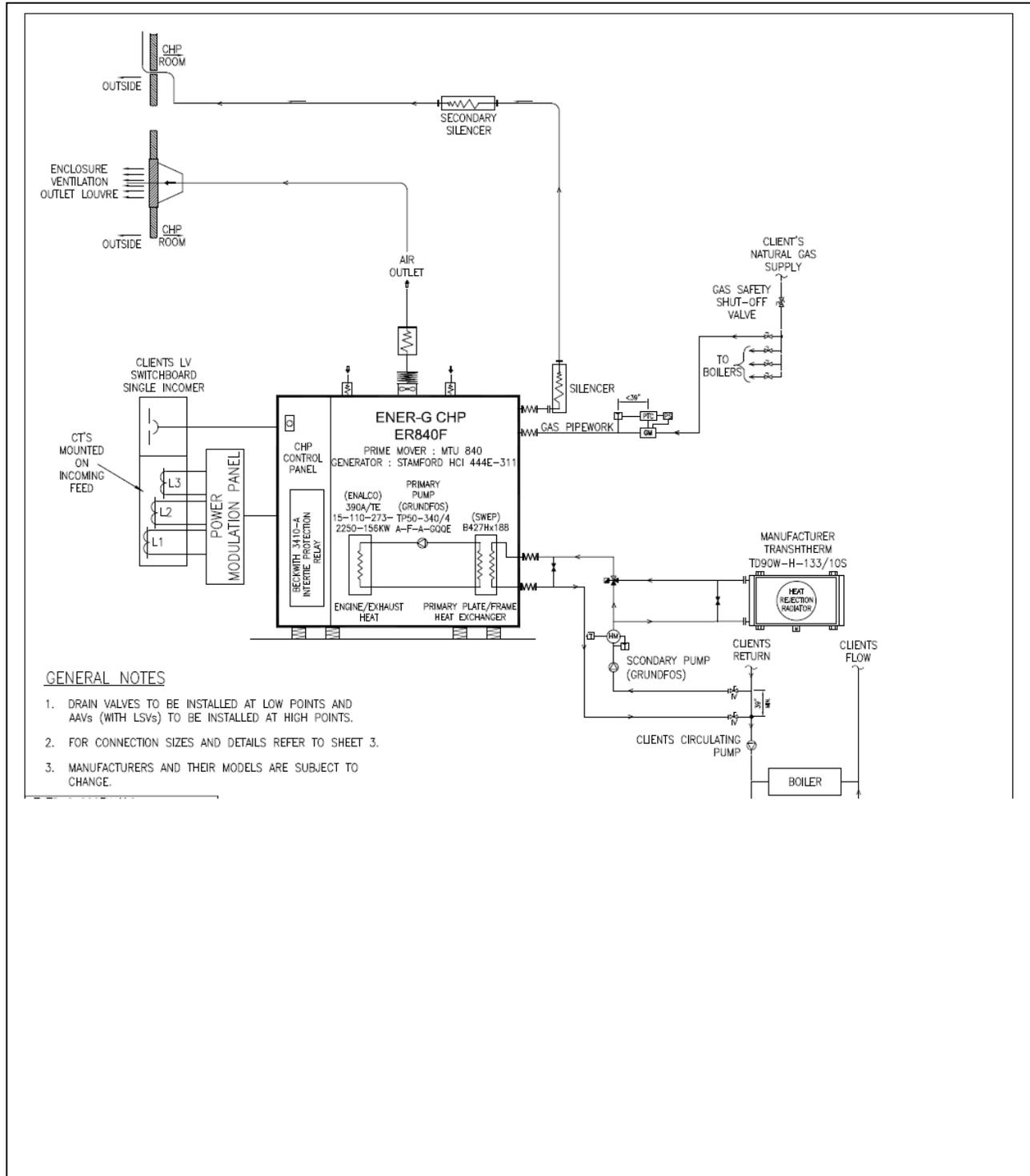
Vendor Statement

<p>ENER-G Rudox Inc, as part of the ENER-G Cogen International offers a range of efficient cogeneration and tri-generation systems from 80kwe to 2.1Mwe . Ener-G offers turnkey solutions, with in-house capabilities from Project Development, Financing, Design, Assembly, Delivery, Installation, Commissioning and on-going 24/7 maintenance with dedicated remote monitoring facilities based at our US Head office. We stock a full inventory of spare parts for all of our equipment.</p> <p>The demand for energy is ever growing whilst it is becoming increasingly expensive. Businesses and individuals are seeking to reduce their costs and carbon footprint. Ener-G Cogeneration can help.</p> <p>Ener-G offer flexible finance models, offering access to our energy solutions without the upfront capital expenditure normally required. ENER-G is 100% dedicated to the development of its products and markets and over the years has seen rapid growth, both organically and through acquisition, to achieve a strong global presence within the energy industry. Currently ENER-G operates in the UK, the USA, the Netherlands, Norway, Poland, Hungary, Lithuania, Spain, Italy, Romania, Mexico and South Africa, with partners across the globe.</p>

ENER-G Rudox Inc

ER840F HW

840 kW





ENER-G Rudox Inc

ER840FI HW

840 kW

Description

Type of prime mover	Number of prime mover units	Synchronous, Inverter or Induction	Type	Black-Start Capable	Qualification Status
RICE	1	Inverter	CHP-HW	Yes	Conditionally qualified

Performance

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	Hot Water to Building @ 180°F			NOx lbs/MWh
					MBtu/h	Return °F	Net System Efficiency % (HHV)	
100%	59°F	7634	825	37.56	2784.7	160	78.02	1.2
	95°F	7634	825	37.56	2784.7	160	78.02	1.2
75%	59°F	5970	615	36.03	2209.0	160	77.12	1.2
	95°F	5970	615	36.03	2209.0	160	77.12	1.2
50%	59°F	4237	405	33.87	1634.2	160	76.67	1.2
	95°F	4237	405	33.87	1634.2	160	76.67	1.2

Notes: 1 – All performance data based on fuel energy content of 1016 Btu/CF HHV

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*		20ft	43.5ft	15ft
Core system based on minimum width*		20ft	43.5ft	15ft
Heat Rejection subsystem*		5ft	23ft	5ft
Largest part for delivery		10ft	40ft	11ft
Heaviest part for delivery		10ft	40ft	11ft

*Includes maintenance clearances.

Vendor Information

<p>Ener-G Rudox Inc 180 East Union Avenue East Rutherford, NJ, 07072 (917)-281-0020, chp@energ-rudox.com www.energ-rudox.com</p>
--

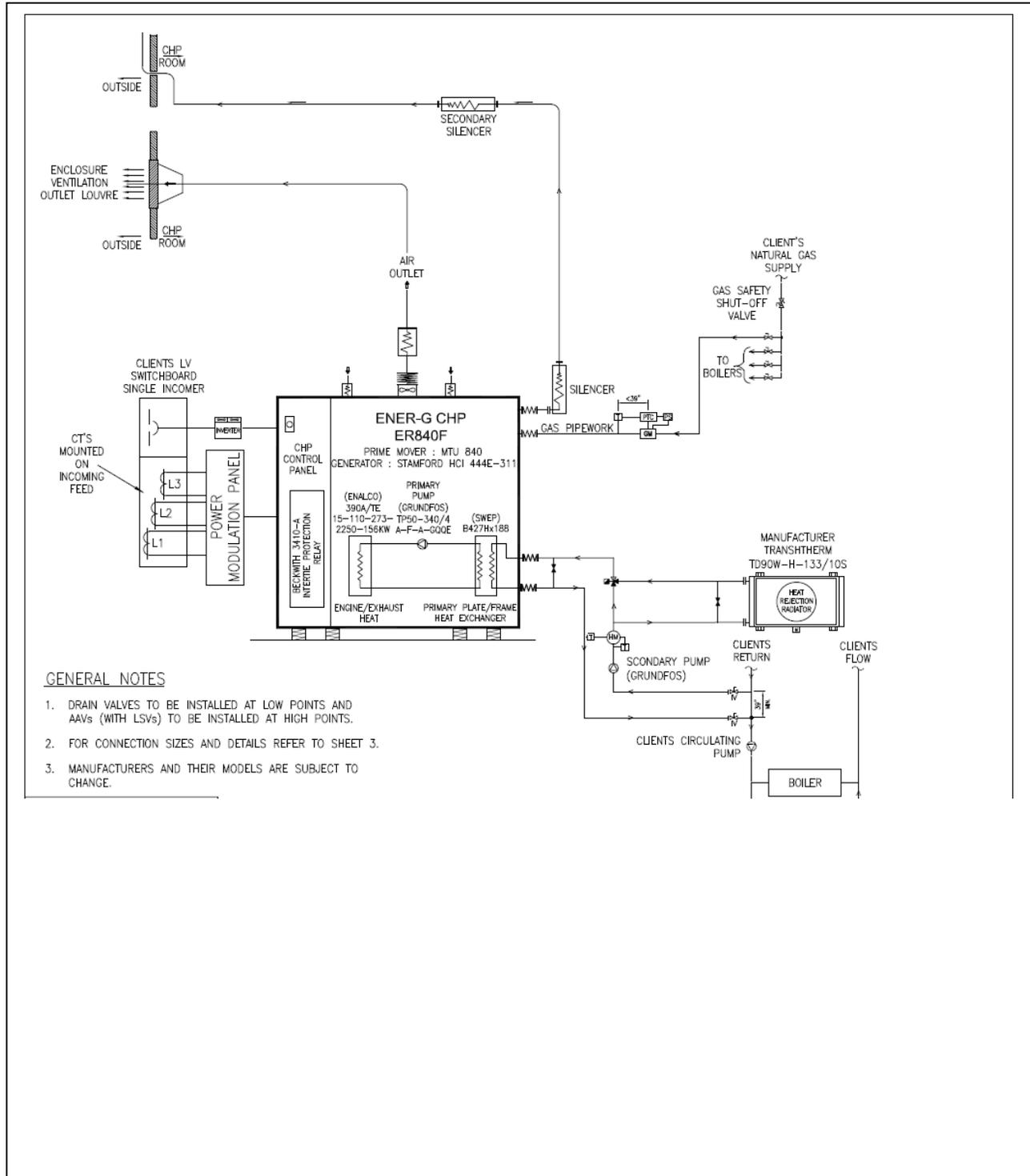
Vendor Statement

<p>ENER-G Rudox Inc, as part of the ENER-G Cogen International offers a range of efficient cogeneration and tri-generation systems from 80kwe to 2.1Mwe . Ener-G offers turnkey solutions, with in-house capabilities from Project Development, Financing, Design, Assembly, Delivery, Installation, Commissioning and on-going 24/7 maintenance with dedicated remote monitoring facilities based at our US Head office. We stock a full inventory of spare parts for all of our equipment.</p> <p>The demand for energy is ever growing whilst it is becoming increasingly expensive. Businesses and individuals are seeking to reduce their costs and carbon footprint. Ener-G Cogeneration can help.</p> <p>Ener-G offer flexible finance models, offering access to our energy solutions without the upfront capital expenditure normally required. ENER-G is 100% dedicated to the development of its products and markets and over the years has seen rapid growth, both organically and through acquisition, to achieve a strong global presence within the energy industry. Currently ENER-G operates in the UK, the USA, the Netherlands, Norway, Poland, Hungary, Lithuania, Spain, Italy, Romania, Mexico and South Africa, with partners across the globe.</p>

ENER-G Rudox Inc

ER840FI HW

840 kW





ENER-G Rudox Inc

ER1000MF HW

1000 kW

Description

Type of prime mover	Number of prime mover units	Synchronous, Inverter or Induction	Type	Black-Start Capable	Qualification Status
RICE	1	Synchronous	CHP-HW	Yes	Conditionally qualified

Performance

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	Hot Water to Building @ 180°F			NOx lbs/MWh
					MBtu/h	Return °F	Net System Efficiency % (HHV)	
100%	59°F	9084	990	37.65	2590.1	160	69.27	1.2
	95°F	9084	990	37.65	2590.1	160	69.27	1.2
75%	59°F	7055	739	36.39	2192.9	160	70.09	1.2
	95°F	7055	739	36.39	2192.9	160	70.09	1.2
50%	59°F	5048	487	33.87	1710.5	160	71.5	1.2
	95°F	5048	487	33.87	1710.5	160	71.5	1.2

Notes: 1 – All performance data based on fuel energy content of 1016 Btu/CF HHV

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*	20ft	48ft	18ft	55,000
Core system based on minimum width*	20ft	48ft	18ft	
Heat Rejection subsystem*	10ft	20ft	5ft	3,600
Largest part for delivery	8.5ft	40ft	10ft	55,000
Heaviest part for delivery	8.5ft	40ft	10ft	55,000

*Includes maintenance clearances.

Vendor Information

<p>Ener-G Rudox Inc 180 East Union Avenue East Rutherford, NJ, 07072 (917)-281-0020, chp@energ-rudox.com www.energ-rudox.com</p>
--

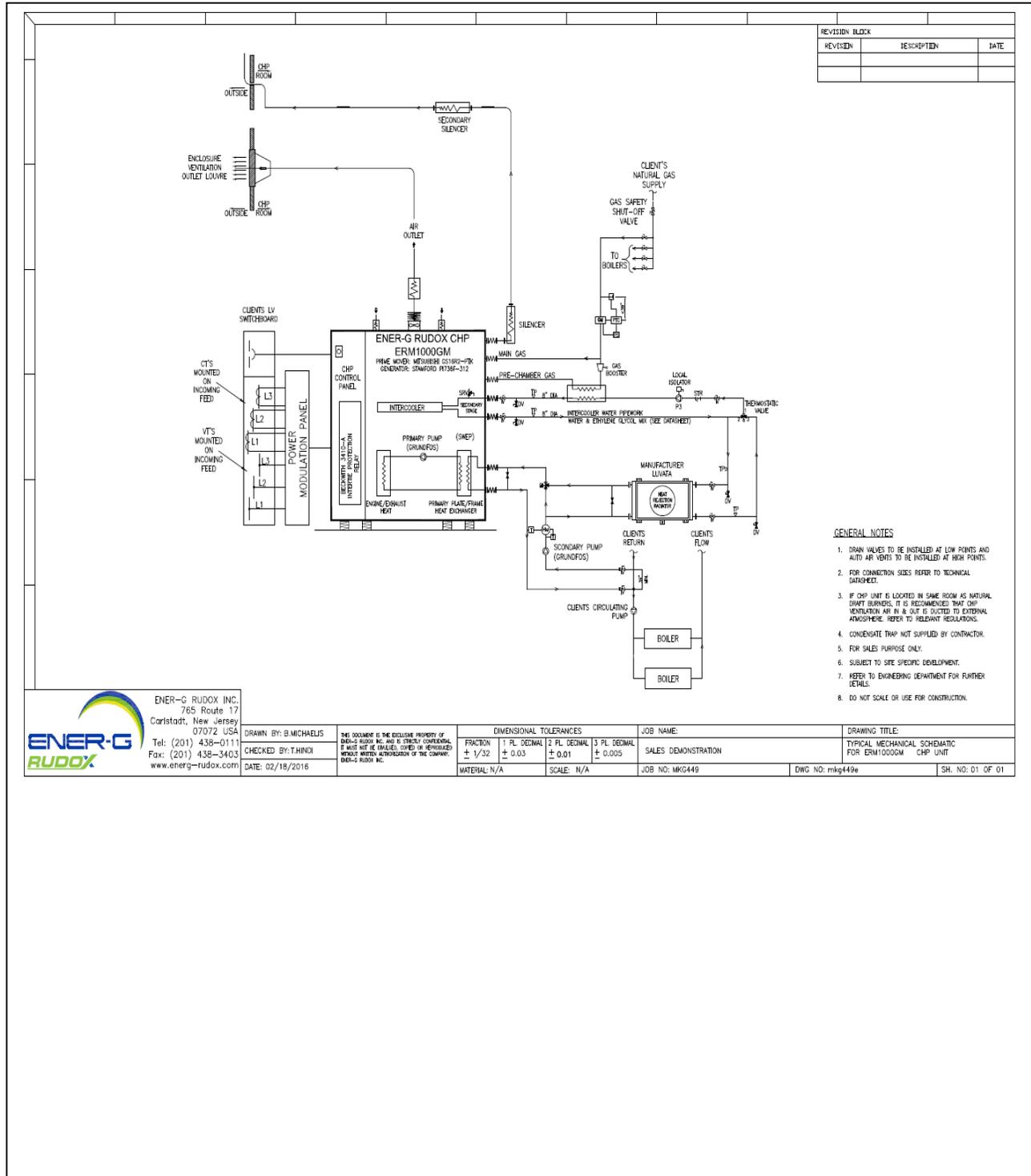
Vendor Statement

<p>ENER-G Rudox Inc, as part of the ENER-G Cogen International offers a range of efficient cogeneration and tri-generation systems from 80kwe to 2.1Mwe . Ener-G offers turnkey solutions, with in-house capabilities from Project Development, Financing, Design, Assembly, Delivery, Installation, Commissioning and on-going 24/7 maintenance with dedicated remote monitoring facilities based at our US Head office. We stock a full inventory of spare parts for all of our equipment.</p> <p>The demand for energy is ever growing whilst it is becoming increasingly expensive. Businesses and individuals are seeking to reduce their costs and carbon footprint. Ener-G Cogeneration can help.</p> <p>Ener-G offer flexible finance models, offering access to our energy solutions without the upfront capital expenditure normally required. ENER-G is 100% dedicated to the development of its products and markets and over the years has seen rapid growth, both organically and through acquisition, to achieve a strong global presence within the energy industry. Currently ENER-G operates in the UK, the USA, the Netherlands, Norway, Poland, Hungary, Lithuania, Spain, Italy, Romania, Mexico and South Africa, with partners across the globe.</p>

ENER-G Rudox Inc

ER1000MF HW

1000 kW





ENER-G Rudox Inc

ER1000MF HW

1000 kW

Description

Type of prime mover	Number of prime mover units	Synchronous, Inverter or Induction	Type	Black-Start Capable	Qualification Status
RICE	1	Inverter	CHP-HW	Yes	Conditionally qualified

Performance

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	Hot Water to Building @ 180°F			NOx lbs/MWh
					MBtu/h	Return °F	Net System Efficiency % (HHV)	
100%	59°F	9084	980	37.65	2590.1	160	69.27	1.2
	95°F	9084	980	37.65	2590.1	160	69.27	1.2
75%	59°F	7055	729	36.39	2192.9	160	70.09	1.2
	95°F	7055	729	36.39	2192.9	160	70.09	1.2
50%	59°F	5048	477	33.87	1710.5	160	71.5	1.2
	95°F	5048	477	33.87	1710.5	160	71.5	1.2

Notes: 1 – All performance data based on fuel energy content of 1016 Btu/CF HHV

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*	20ft	48ft	18ft	55,000
Core system based on minimum width*	20ft	48ft	18ft	
Heat Rejection subsystem*	10ft	20ft	5ft	3,600
Largest part for delivery	8.5ft	40ft	10ft	55,000
Heaviest part for delivery	8.5ft	40ft	10ft	55,000

*Includes maintenance clearances.

Vendor Information

Ener-G Rudox Inc 180 East Union Avenue East Rutherford, NJ, 07072 (917)-281-0020, chp@energ-rudox.com www.energ-rudox.com

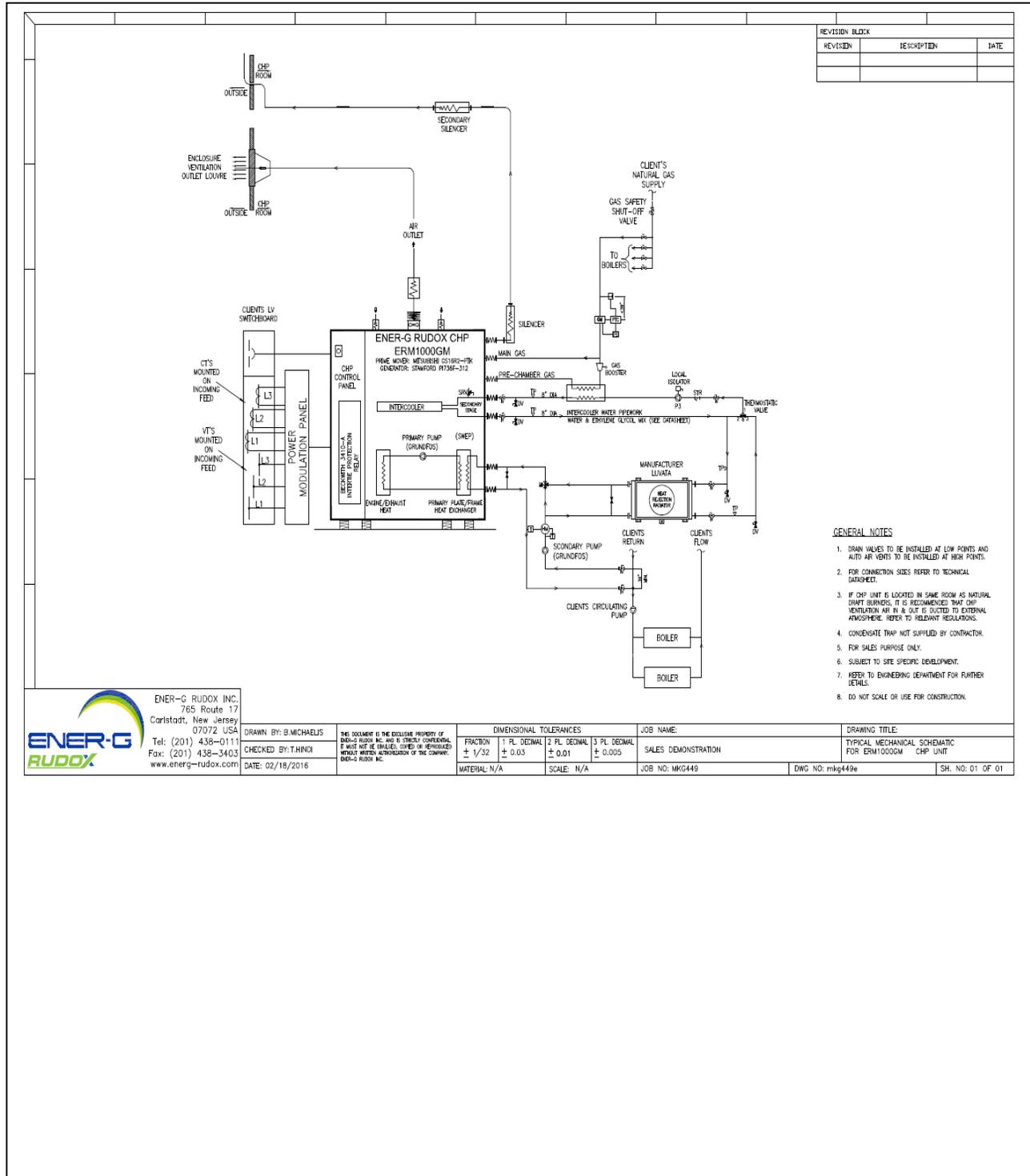
Vendor Statement

<p>ENER-G Rudox Inc, as part of the ENER-G Cogen International offers a range of efficient cogeneration and tri-generation systems from 80kwe to 2.1Mwe . Ener-G offers turnkey solutions, with in-house capabilities from Project Development, Financing, Design, Assembly, Delivery, Installation, Commissioning and on-going 24/7 maintenance with dedicated remote monitoring facilities based at our US Head office. We stock a full inventory of spare parts for all of our equipment.</p> <p>The demand for energy is ever growing whilst it is becoming increasingly expensive. Businesses and individuals are seeking to reduce their costs and carbon footprint. Ener-G Cogeneration can help.</p> <p>Ener-G offer flexible finance models, offering access to our energy solutions without the upfront capital expenditure normally required. ENER-G is 100% dedicated to the development of its products and markets and over the years has seen rapid growth, both organically and through acquisition, to achieve a strong global presence within the energy industry. Currently ENER-G operates in the UK, the USA, the Netherlands, Norway, Poland, Hungary, Lithuania, Spain, Italy, Romania, Mexico and South Africa, with partners across the globe.</p>

ENER-G Rudox Inc

ER1000MF HW

1000 kW



- GENERAL NOTES**
1. DRAIN VALVES TO BE INSTALLED AT LOW POINTS AND AUTO AIR VENTS TO BE INSTALLED AT HIGH POINTS.
 2. FOR CONNECTION SIZES REFER TO TECHNICAL DATASHEET.
 3. IF CHP UNIT IS LOCATED IN SAME ROOM AS NATURAL DRAFT BUILDINGS, IT IS RECOMMENDED THAT CHP VENTILATION AIR IN & OUT IS DUCTED TO EXTERNAL ATMOSPHERE. REFER TO RELEVANT REGULATIONS.
 4. CONDENSATE TRAP NOT SUPPLIED BY CONTRACTOR.
 5. FOR SALES PURPOSE ONLY.
 6. SUBJECT TO SITE SPECIFIC DEVELOPMENT.
 7. REFER TO ENGINEERING DEPARTMENT FOR FURTHER DETAILS.
 8. DO NOT SCALE OR USE FOR CONSTRUCTION.

ENER-G RUDOX INC.
 765 Route 17
 Carlstadt, New Jersey
 07072 USA
 Tel: (201) 438-0111
 Fax: (201) 438-3403
 www.ener-g-rudox.com

DRAWN BY: B.MICHAELIS
 CHECKED BY: T.HINDI
 DATE: 02/18/2016

THIS DOCUMENT IS THE EXCLUSIVE PROPERTY OF
 ENER-G RUDOX INC. AND IS STRICTLY CONFIDENTIAL.
 IT MUST NOT BE COPIED, LOANED OR REPRODUCED
 WITHOUT WRITTEN AUTHORIZATION OF THE COMPANY.
 ENER-G RUDOX INC.

DIMENSIONAL TOLERANCES		
FRACTION	1 PL. DECIMAL	2 PL. DECIMAL
± 1/32	± 0.03	± 0.01
MATERIAL: N/A	SCALE: N/A	

JOB NAME:
 SALES DEMONSTRATION
JOB NO: MKG449

DRAWING TITLE:
 TYPICAL MECHANICAL SCHEMATIC
 FOR ERM1000GM CHP UNIT
DWG NO: mkg449e
SH. NO: 01 OF 01



ENER-G Rudox Inc

ER1200MF HW

1200 kW

Description

Type of prime mover	Number of prime mover units	Synchronous, Inverter or Induction	Type	Black-Start Capable	Qualification Status
RICE	1	Synchronous	CHP-HW	Yes	Conditionally qualified

Performance

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	Hot Water to Building @ 180°F			NOx lbs/MWh
					MBtu/h	Return °F	Net System Efficiency % (HHV)	
100%	59°F	10530	1196	39.28	2922.8	160	70.09	1.2
	95°F	10530	1196	39.28	2922.8	160	70.09	1.2
75%	59°F	8161	882	38.01	2424.8	160	70.99	1.2
	95°F	8161	882	38.01	2424.8	160	70.99	1.2
50%	59°F	5730	587	36.12	1861.6	160	72.16	1.2
	95°F	5730	587	36.12	1861.6	160	72.16	1.2

Notes: 1 – All performance data based on fuel energy content of 1016 Btu/CF HHV

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*	20ft	53ft	18ft	65,000
Core system based on minimum width*	20ft	53ft	18ft	
Heat Rejection subsystem*	10ft	22ft	5ft	4,600
Largest part for delivery	8.5ft	45ft	10ft	65,000
Heaviest part for delivery	8.5ft	45ft	10ft	65,000

*Includes maintenance clearances.

Vendor Information

Ener-G Rudox Inc 180 East Union Avenue East Rutherford, NJ, 07072 (917)-281-0020, chp@energ-rudox.com www.energ-rudox.com

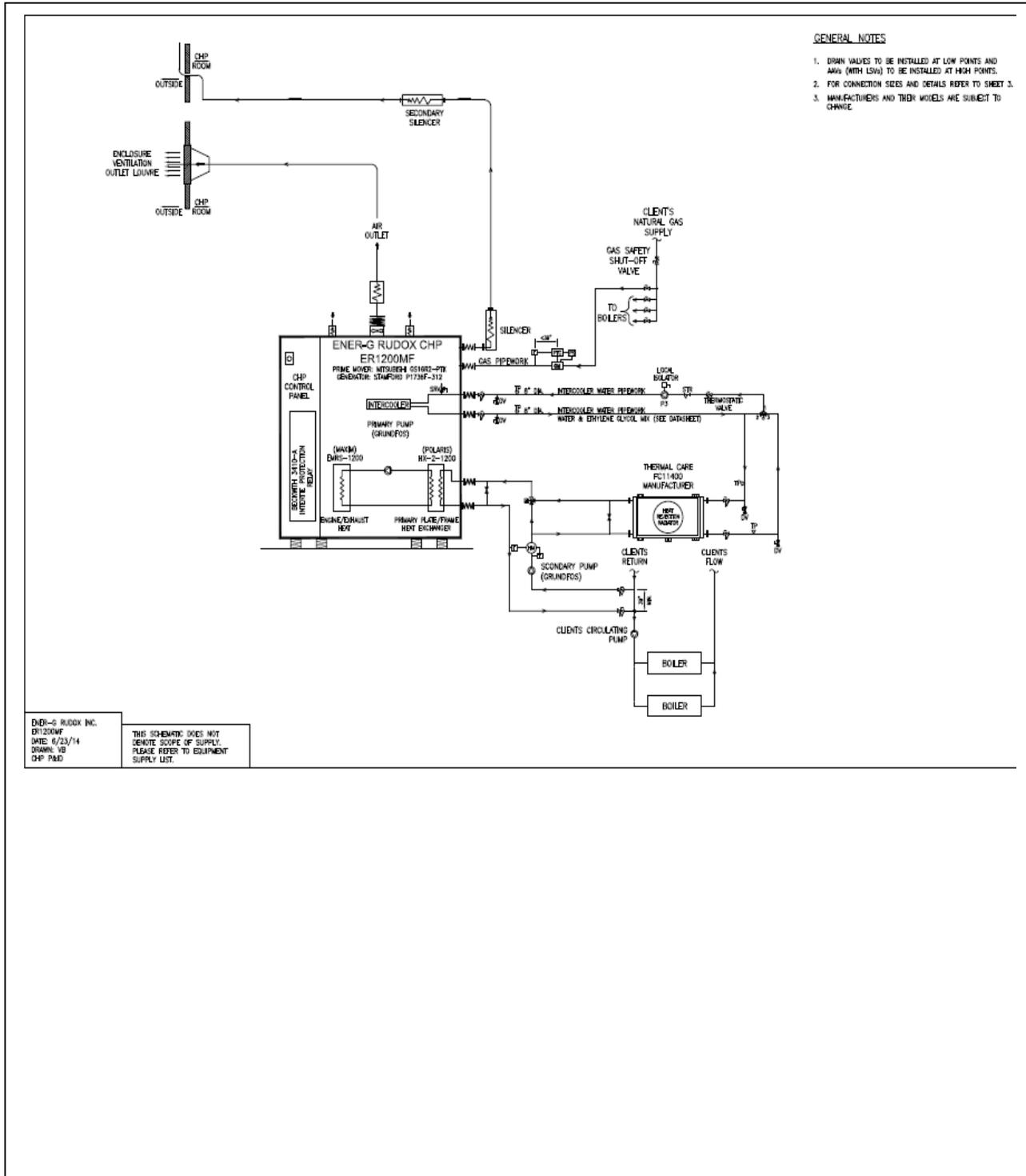
Vendor Statement

<p>ENER-G Rudox Inc, as part of the ENER-G Cogen International offers a range of efficient cogeneration and tri-generation systems from 80kwe to 2.1Mwe . Ener-G offers turnkey solutions, with in-house capabilities from Project Development, Financing, Design, Assembly, Delivery, Installation, Commissioning and on-going 24/7 maintenance with dedicated remote monitoring facilities based at our US Head office. We stock a full inventory of spare parts for all of our equipment.</p> <p>The demand for energy is ever growing whilst it is becoming increasingly expensive. Businesses and individuals are seeking to reduce their costs and carbon footprint. Ener-G Cogeneration can help.</p> <p>Ener-G offer flexible finance models, offering access to our energy solutions without the upfront capital expenditure normally required. ENER-G is 100% dedicated to the development of its products and markets and over the years has seen rapid growth, both organically and through acquisition, to achieve a strong global presence within the energy industry. Currently ENER-G operates in the UK, the USA, the Netherlands, Norway, Poland, Hungary, Lithuania, Spain, Italy, Romania, Mexico and South Africa, with partners across the globe.</p>

ENER-G Rudox Inc

ER1200MF HW

1200 kW



- GENERAL NOTES**
1. DRAIN VALVES TO BE INSTALLED AT LOW POINTS AND AWA (WITH LSW) TO BE INSTALLED AT HIGH POINTS.
 2. FOR CONNECTION SIZES AND DETAILS REFER TO SHEET 3.
 3. MANUFACTURERS AND THEIR MODELS ARE SUBJECT TO CHANGE.

D/DI-G RUDOX INC.
ER1200MF
DATE: 6/23/14
DRAWN: VB
CHP P&ID

THIS SCHEMATIC DOES NOT
DEFINE SCOPE OF SUPPLY.
PLEASE REFER TO EQUIPMENT
SUPPLY LIST.



ENER-G Rudox Inc

ER1200MFI HW

1200 kW

Description

Type of prime mover	Number of prime mover units	Synchronous, Inverter or Induction	Type	Black-Start Capable	Qualification Status
RICE	1	Inverter	CHP-HW	Yes	Conditionally qualified

Performance

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	Hot Water to Building @ 180°F			NOx lbs/MWh
					MBtu/h	Return °F	Net System Efficiency % (HHV)	
100%	59°F	10530	1190	39.28	2922.8	160	70.09	1.2
	95°F	10530	1190	39.28	2922.8	160	70.09	1.2
75%	59°F	8161	876	38.01	2424.8	160	70.99	1.2
	95°F	8161	876	38.01	2424.8	160	70.99	1.2
50%	59°F	5730	581	36.12	1861.6	160	72.16	1.2
	95°F	5730	581	36.12	1861.6	160	72.16	1.2

Notes: 1 – All performance data based on fuel energy content of 1016 Btu/CF HHV

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*	20ft	53ft	18ft	65,000
Core system based on minimum width*	20ft	53ft	18ft	
Heat Rejection subsystem*	10ft	22ft	5ft	4,600
Largest part for delivery	8.5ft	45ft	10ft	65,000
Heaviest part for delivery	8.5ft	45ft	10ft	65,000

*Includes maintenance clearances.

Vendor Information

Ener-G Rudox Inc 180 East Union Avenue East Rutherford, NJ, 07072 (917)-281-0020, chp@energ-rudox.com www.energ-rudox.com

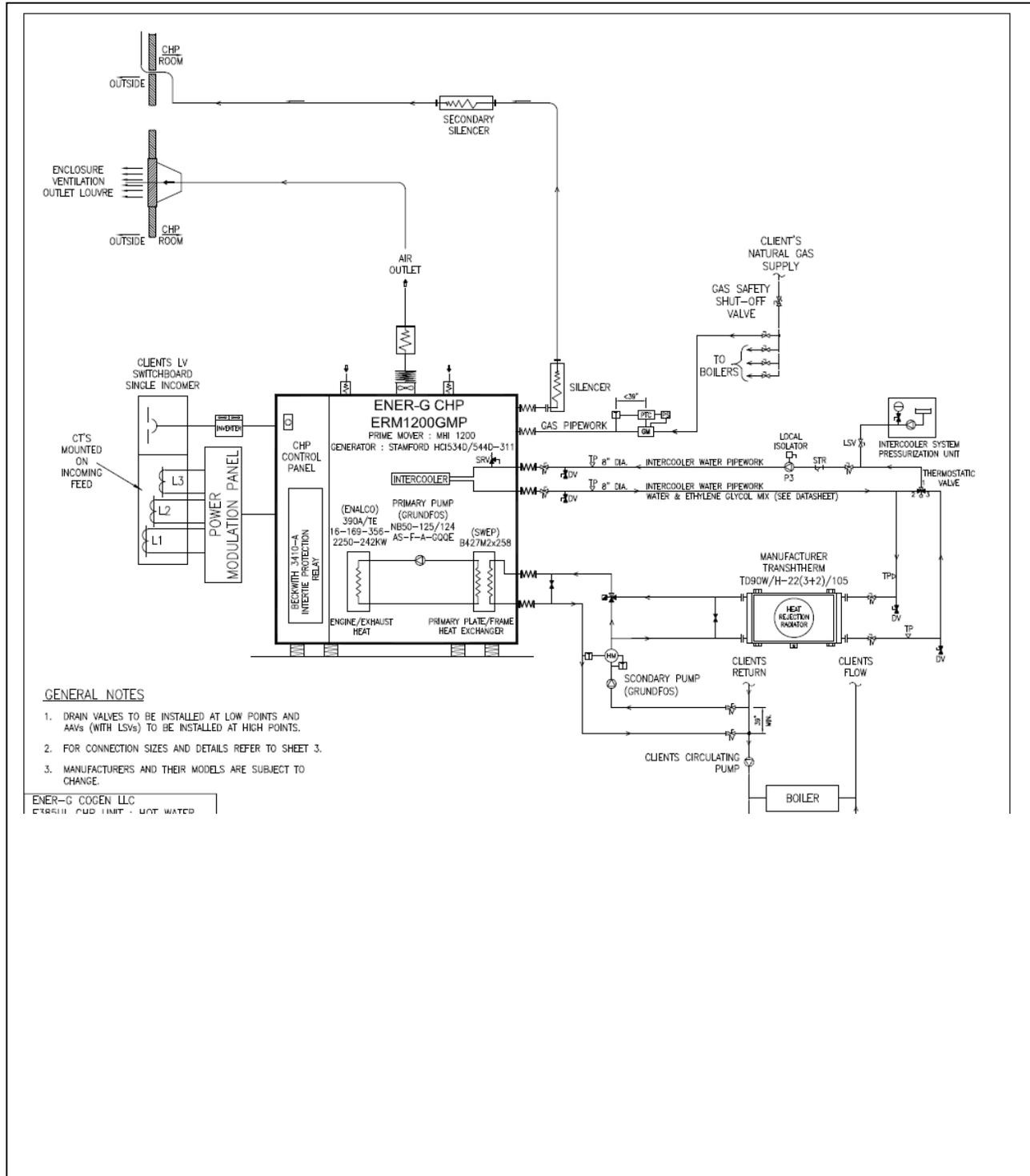
Vendor Statement

<p>ENER-G Rudox Inc, as part of the ENER-G Cogen International offers a range of efficient cogeneration and tri-generation systems from 80kwe to 2.1Mwe . Ener-G offers turnkey solutions, with in-house capabilities from Project Development, Financing, Design, Assembly, Delivery, Installation, Commissioning and on-going 24/7 maintenance with dedicated remote monitoring facilities based at our US Head office. We stock a full inventory of spare parts for all of our equipment.</p> <p>The demand for energy is ever growing whilst it is becoming increasingly expensive. Businesses and individuals are seeking to reduce their costs and carbon footprint. Ener-G Cogeneration can help.</p> <p>Ener-G offer flexible finance models, offering access to our energy solutions without the upfront capital expenditure normally required. ENER-G is 100% dedicated to the development of its products and markets and over the years has seen rapid growth, both organically and through acquisition, to achieve a strong global presence within the energy industry. Currently ENER-G operates in the UK, the USA, the Netherlands, Norway, Poland, Hungary, Lithuania, Spain, Italy, Romania, Mexico and South Africa, with partners across the globe.</p>

ENER-G Rudox Inc

ER1200MFI HW

1200 kW





ENER-G Rudox Inc

ER1500MF HW

1500 kW

Description

Type of prime mover	Number of prime mover units	Synchronous, Inverter or Induction	Type	Black-Start Capable	Qualification Status
RICE	1	Synchronous	CHP-HW	Yes	Conditionally qualified

Performance

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	Hot Water to Building @ 180°F			NOx lbs/MWh
					MBtu/h	Return °F	Net System Efficiency % (HHV)	
100%	59°F	13483	1487	38.11	3652.2	160	68.19	1.2
	95°F	13483	1487	38.11	3652.2	160	68.19	1.2
75%	59°F	10450	1112	36.84	3035.2	160	69.09	1.2
	95°F	10450	1112	36.84	3035.2	160	69.09	1.2
50%	59°F	7338	729	35.04	2337.0	160	70.36	1.2
	95°F	7338	729	35.04	2337.0	160	70.36	1.2

Notes: 1 – All performance data based on fuel energy content of 1016 Btu/CF HHV

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*	20ft	53ft	18ft	76,500
Core system based on minimum width*	20ft	53ft	18ft	
Heat Rejection subsystem*	10ft	25ft	5ft	5,600
Largest part for delivery	8.5ft	45ft	10ft	76,500
Heaviest part for delivery	8.5ft	45ft	10ft	76,500

*Includes maintenance clearances.

Vendor Information

Ener-G Rudox Inc 180 East Union Avenue East Rutherford, NJ, 07072 (917)-281-0020, chp@energ-rudox.com www.energ-rudox.com

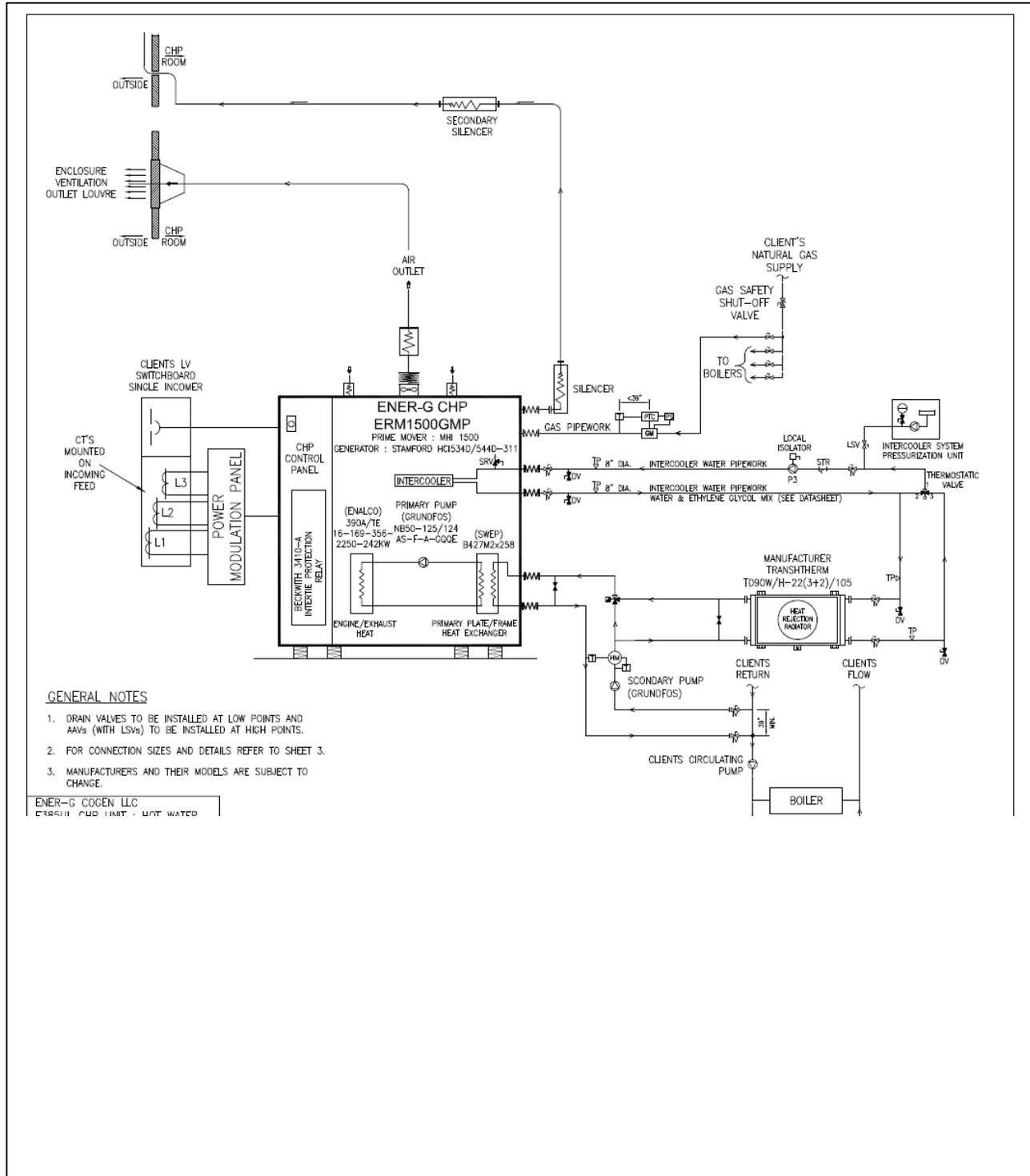
Vendor Statement

<p>ENER-G Rudox Inc, as part of the ENER-G Cogen International offers a range of efficient cogeneration and tri-generation systems from 80kwe to 2.1Mwe . Ener-G offers turnkey solutions, with in-house capabilities from Project Development, Financing, Design, Assembly, Delivery, Installation, Commissioning and on-going 24/7 maintenance with dedicated remote monitoring facilities based at our US Head office. We stock a full inventory of spare parts for all of our equipment.</p> <p>The demand for energy is ever growing whilst it is becoming increasingly expensive. Businesses and individuals are seeking to reduce their costs and carbon footprint. Ener-G Cogeneration can help.</p> <p>Ener-G offer flexible finance models, offering access to our energy solutions without the upfront capital expenditure normally required. ENER-G is 100% dedicated to the development of its products and markets and over the years has seen rapid growth, both organically and through acquisition, to achieve a strong global presence within the energy industry. Currently ENER-G operates in the UK, the USA, the Netherlands, Norway, Poland, Hungary, Lithuania, Spain, Italy, Romania, Mexico and South Africa, with partners across the globe.</p>

ENER-G Rudox Inc

ER1500MF HW

1500 kW





ENER-G Rudox Inc

ER1500MFI HW

1500 kW

Description

Type of prime mover	Number of prime mover units	Synchronous, Inverter or Induction	Type	Black-Start Capable	Qualification Status
RICE	1	Inverter	CHP-HW	Yes	Conditionally qualified

Performance

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	Hot Water to Building @ 180°F			NOx lbs/MWh
					MBtu/h	Return °F	Net System Efficiency % (HHV)	
100%	59°F	13483	1477	38.11	3652.2	160	68.19	1.2
	95°F	13483	1477	38.11	3652.2	160	68.19	
75%	59°F	10450	1102	36.84	3035.2	160	69.09	1.2
	95°F	10450	1102	36.84	3035.2	160	69.09	
50%	59°F	7338	719	35.04	2337.0	160	70.36	1.2
	95°F	7338	719	35.04	2337.0	160	70.36	

Notes: 1 – All performance data based on fuel energy content of 1016 Btu/CF HHV

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*	20ft	53ft	18ft	76,500
Core system based on minimum width*	20ft	53ft	18ft	
Heat Rejection subsystem*	10ft	25ft	5ft	5,600
Largest part for delivery	8.5ft	45ft	10ft	76,500
Heaviest part for delivery	8.5ft	45ft	10ft	76,500

*Includes maintenance clearances.

Vendor Information

Ener-G Rudox Inc 180 East Union Avenue East Rutherford, NJ, 07072 (917)-281-0020, chp@energ-rudox.com www.energ-rudox.com

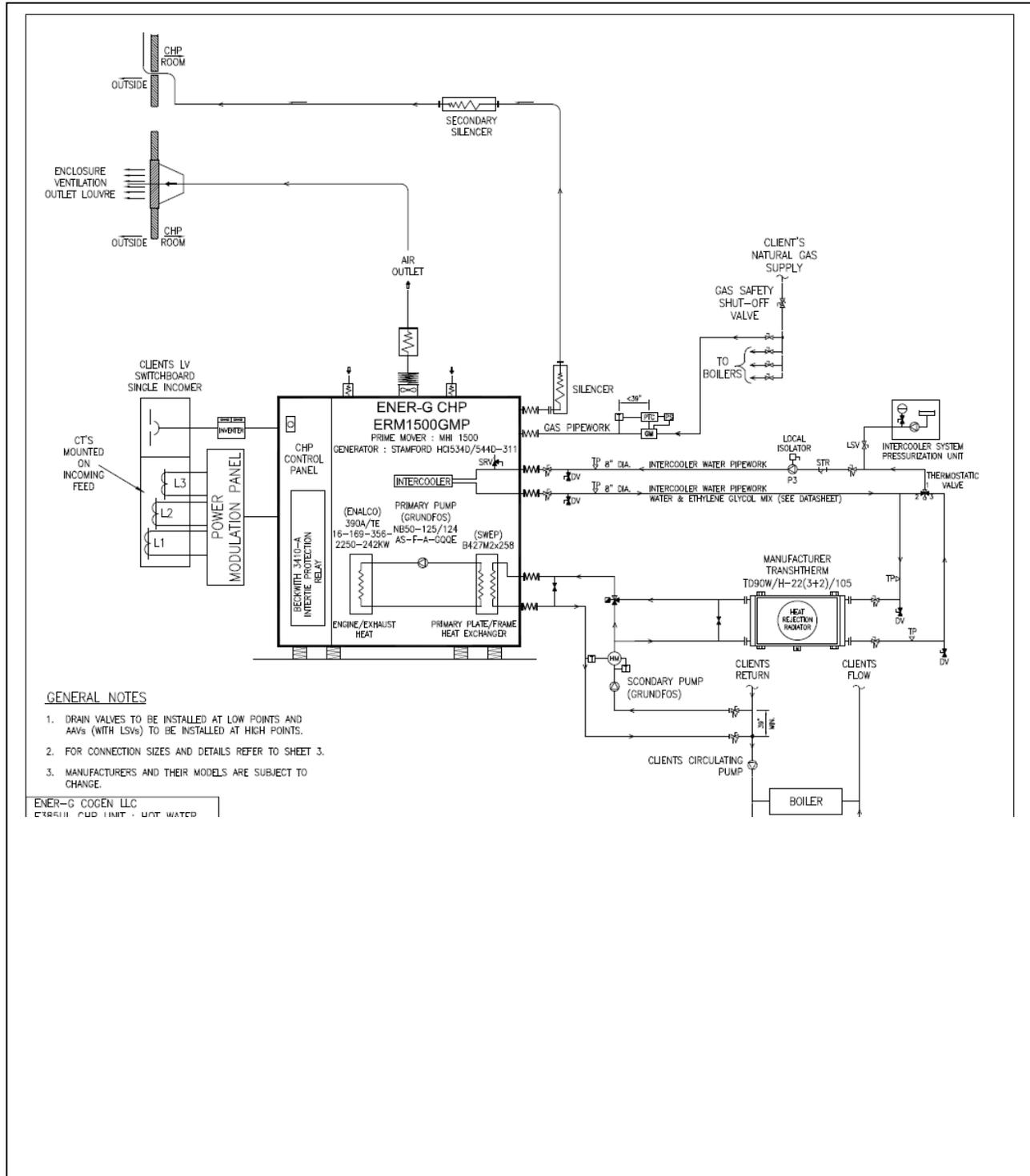
Vendor Statement

<p>ENER-G Rudox Inc, as part of the ENER-G Cogen International offers a range of efficient cogeneration and tri-generation systems from 80kwe to 2.1Mwe . Ener-G offers turnkey solutions, with in-house capabilities from Project Development, Financing, Design, Assembly, Delivery, Installation, Commissioning and on-going 24/7 maintenance with dedicated remote monitoring facilities based at our US Head office. We stock a full inventory of spare parts for all of our equipment.</p> <p>The demand for energy is ever growing whilst it is becoming increasingly expensive. Businesses and individuals are seeking to reduce their costs and carbon footprint. Ener-G Cogeneration can help.</p> <p>Ener-G offer flexible finance models, offering access to our energy solutions without the upfront capital expenditure normally required. ENER-G is 100% dedicated to the development of its products and markets and over the years has seen rapid growth, both organically and through acquisition, to achieve a strong global presence within the energy industry. Currently ENER-G operates in the UK, the USA, the Netherlands, Norway, Poland, Hungary, Lithuania, Spain, Italy, Romania, Mexico and South Africa, with partners across the globe.</p>

ENER-G Rudox Inc

ER1500MFI HW

1500 kW





ENER-G Rudox Inc

ER1700F HW

1700 kW

Description

Type of prime mover	Number of prime mover units	Synchronous, Inverter or Induction	Type	Black-Start Capable	Qualification Status
RICE	1	Synchronous	CHP-HW	Yes	Conditionally qualified

Performance

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	Hot Water to Building @ 180°F			NOx lbs/MWh
					MBtu/h	Return °F	Net System Efficiency % (HHV)	
100%	59°F	15284	1677	37.93	5611.6	160	78.91	1.2
	95°F	15284	1677	37.93	5611.7	160	78.91	1.2
75%	59°F	11781	1253	36.93	4461.3	160	78.64	1.2
	95°F	11781	1253	36.93	4461.3	160	78.64	1.2
50%	59°F	8317	829	34.86	3236.9	160	78.01	1.2
	95°F	8317	829	34.86	3236.9	160	78.01	1.2

Notes: 1 – All performance data based on fuel energy content of 1016 Btu/CF HHV

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*	20ft	47ft	15ft	65,500
Core system based on minimum width*	20ft	47ft	15ft	
Heat Rejection subsystem*	10ft	25ft	5ft	5,600
Largest part for delivery	10ft	43ft	11ft	65,500
Heaviest part for delivery	10ft	43ft	11ft	65,500

*Includes maintenance clearances.

Vendor Information

<p>Ener-G Rudox Inc 180 East Union Avenue East Rutherford, NJ, 07072 (917)-281-0020, chp@energ-rudox.com www.energ-rudox.com</p>
--

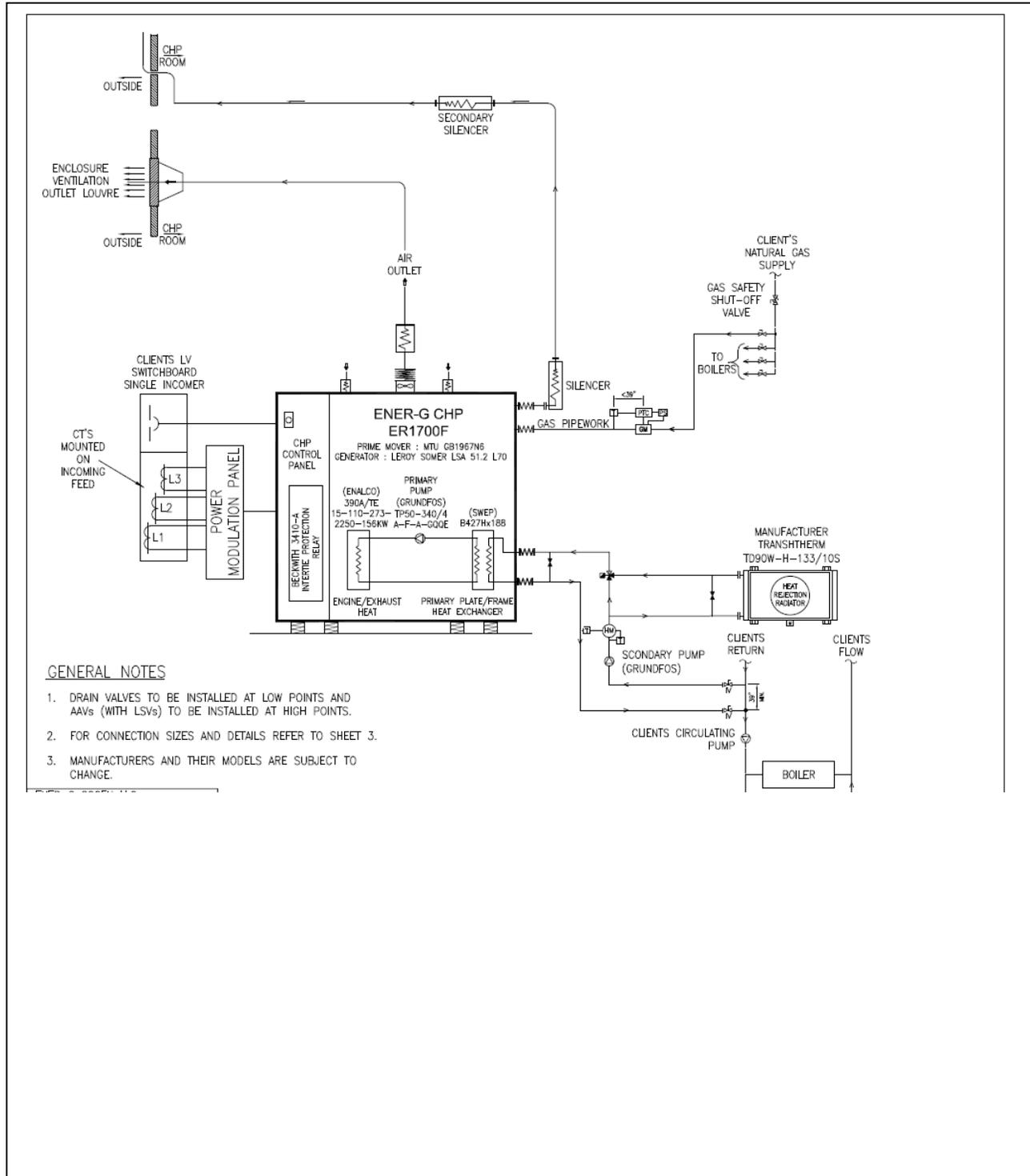
Vendor Statement

<p>ENER-G Rudox Inc, as part of the ENER-G Cogen International offers a range of efficient cogeneration and tri-generation systems from 80kwe to 2.1Mwe . Ener-G offers turnkey solutions, with in-house capabilities from Project Development, Financing, Design, Assembly, Delivery, Installation, Commissioning and on-going 24/7 maintenance with dedicated remote monitoring facilities based at our US Head office. We stock a full inventory of spare parts for all of our equipment.</p> <p>The demand for energy is ever growing whilst it is becoming increasingly expensive. Businesses and individuals are seeking to reduce their costs and carbon footprint. Ener-G Cogeneration can help.</p> <p>Ener-G offer flexible finance models, offering access to our energy solutions without the upfront capital expenditure normally required. ENER-G is 100% dedicated to the development of its products and markets and over the years has seen rapid growth, both organically and through acquisition, to achieve a strong global presence within the energy industry. Currently ENER-G operates in the UK, the USA, the Netherlands, Norway, Poland, Hungary, Lithuania, Spain, Italy, Romania, Mexico and South Africa, with partners across the globe.</p>

ENER-G Rudox Inc

ER1700F HW

1700 kW





ENER-G Rudox Inc

ER1700FI HW

1700 kW

Description

Type of prime mover	Number of prime mover units	Synchronous, Inverter or Induction	Type	Black-Start Capable	Qualification Status
RICE	1	Inverter	CHP-HW	Yes	Conditionally qualified

Performance

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	Hot Water to Building @ 180°F			NOx lbs/MWh
					MBtu/h	Return °F	Net System Efficiency % (HHV)	
100%	59°F	15284	1667	37.93	5611.6	160	78.91	1.2
	95°F	15284	1667	37.93	5611.7	160	78.91	1.2
75%	59°F	11781	1243	36.93	4461.3	160	78.64	1.2
	95°F	11781	1243	36.93	4461.3	160	78.64	1.2
50%	59°F	8317	819	34.86	3236.9	160	78.01	1.2
	95°F	8317	819	34.86	3236.9	160	78.01	1.2

Notes: 1 – All performance data based on fuel energy content of 1016 Btu/CF HHV

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*	20ft	47ft	15ft	65,500
Core system based on minimum width*	20ft	47ft	15ft	
Heat Rejection subsystem*	10ft	25ft	5ft	5,600
Largest part for delivery	10ft	43ft	11ft	65,500
Heaviest part for delivery	10ft	43ft	11ft	65,500

*Includes maintenance clearances.

Vendor Information

Ener-G Rudox Inc 180 East Union Avenue East Rutherford, NJ, 07072 (917)-281-0020, chp@energ-rudox.com www.energ-rudox.com

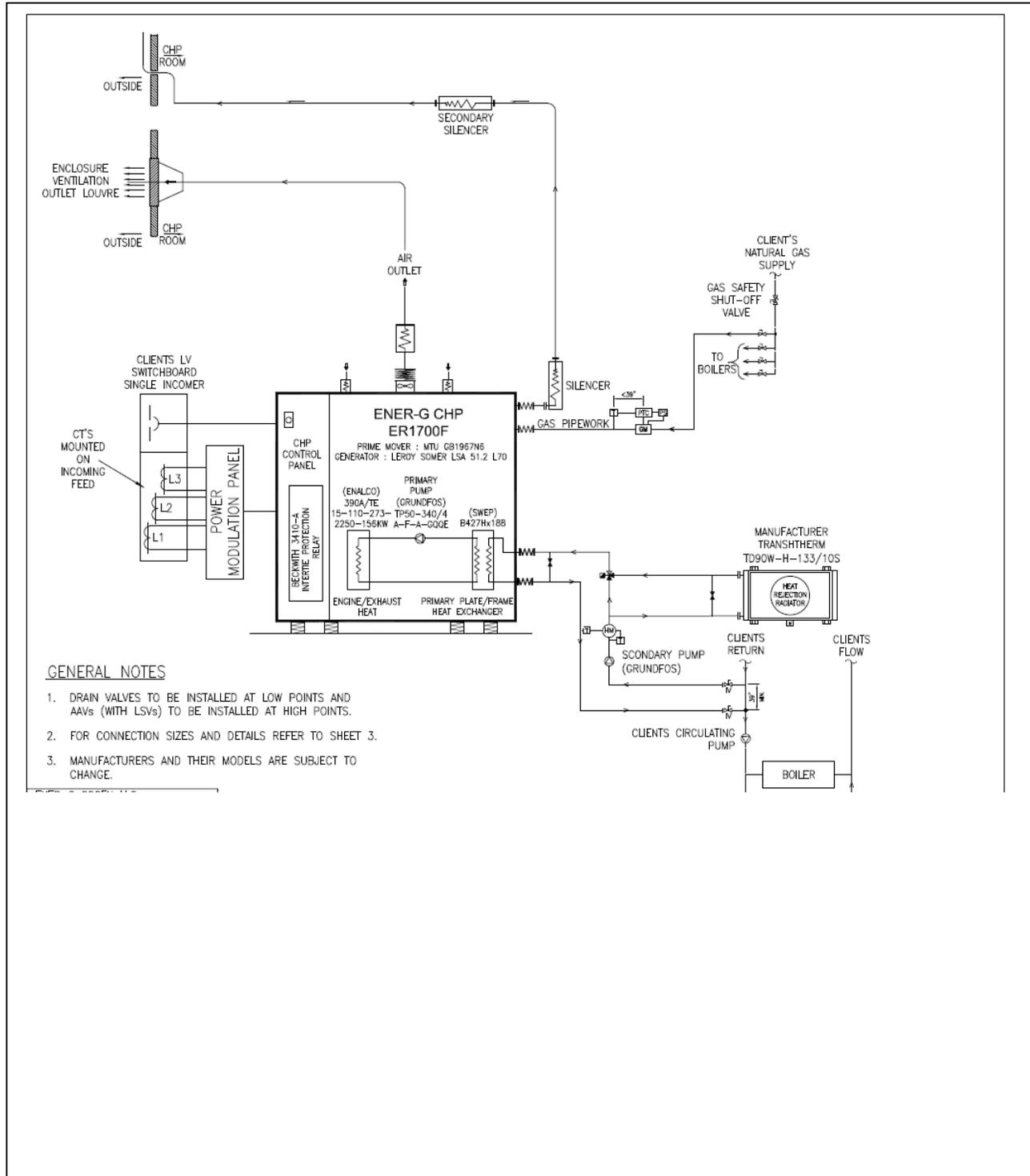
Vendor Statement

<p>ENER-G Rudox Inc, as part of the ENER-G Cogen International offers a range of efficient cogeneration and tri-generation systems from 80kwe to 2.1Mwe . Ener-G offers turnkey solutions, with in-house capabilities from Project Development, Financing, Design, Assembly, Delivery, Installation, Commissioning and on-going 24/7 maintenance with dedicated remote monitoring facilities based at our US Head office. We stock a full inventory of spare parts for all of our equipment.</p> <p>The demand for energy is ever growing whilst it is becoming increasingly expensive. Businesses and individuals are seeking to reduce their costs and carbon footprint. Ener-G Cogeneration can help.</p> <p>Ener-G offer flexible finance models, offering access to our energy solutions without the upfront capital expenditure normally required. ENER-G is 100% dedicated to the development of its products and markets and over the years has seen rapid growth, both organically and through acquisition, to achieve a strong global presence within the energy industry. Currently ENER-G operates in the UK, the USA, the Netherlands, Norway, Poland, Hungary, Lithuania, Spain, Italy, Romania, Mexico and South Africa, with partners across the globe.</p>

ENER-G Rudox Inc

ER1700FI HW

1700 kW





ENER-G Rudox Inc

ER1900F HW

1932 kW

Description

Type of prime mover	Number of prime mover units	Synchronous, Inverter or Induction	Type	Black-Start Capable	Qualification Status
RICE	1	Synchronous	CHP-HW	Yes	Conditionally qualified

Performance

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	Hot Water to Building @ 180°F			NOx lbs/MWh
					MBtu/h	Return °F	Net System Efficiency % (HHV)	
100%	59°F	17470	1902	37.74	6457.7	160	78.82	1.2
	95°F	17470	1902	37.74	6457.7	160	78.82	1.2
75%	59°F	13542	1419	36.57	5150.4	160	78.82	1.2
	95°F	13542	1419	36.57	5150.4	160	78.82	1.2
50%	59°F	9585	936	34.41	3836.9	160	78.91	1.2
	95°F	9585	936	34.41	3836.9	160	78.91	1.2

Notes: 1 – All performance data based on fuel energy content of 1016 Btu/CF HHV

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*	20ft	47ft	15ft	68,500
Core system based on minimum width*	20ft	47ft	15ft	
Heat Rejection subsystem*	10ft	27ft	5ft	5,600
Largest part for delivery	10ft	43ft	11ft	68,500
Heaviest part for delivery	10ft	43ft	11ft	68,500

*Includes maintenance clearances.

Vendor Information

<p>Ener-G Rudox Inc 180 East Union Avenue East Rutherford, NJ, 07072 (917)-281-0020, chp@energ-rudox.com www.energ-rudox.com</p>
--

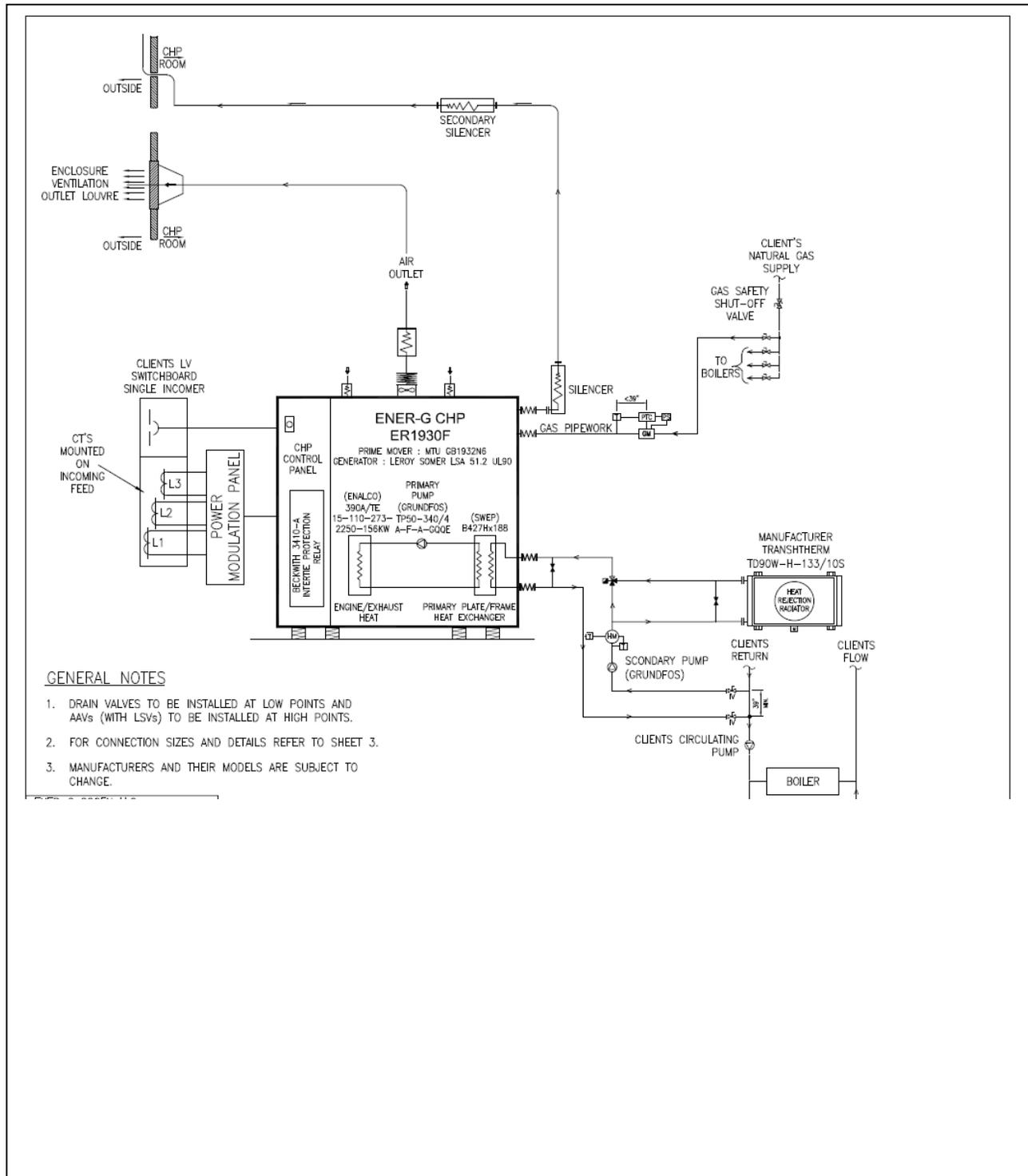
Vendor Statement

<p>ENER-G Rudox Inc, as part of the ENER-G Cogen International offers a range of efficient cogeneration and tri-generation systems from 80kwe to 2.1Mwe . Ener-G offers turnkey solutions, with in-house capabilities from Project Development, Financing, Design, Assembly, Delivery, Installation, Commissioning and on-going 24/7 maintenance with dedicated remote monitoring facilities based at our US Head office. We stock a full inventory of spare parts for all of our equipment.</p> <p>The demand for energy is ever growing whilst it is becoming increasingly expensive. Businesses and individuals are seeking to reduce their costs and carbon footprint. Ener-G Cogeneration can help.</p> <p>Ener-G offer flexible finance models, offering access to our energy solutions without the upfront capital expenditure normally required. ENER-G is 100% dedicated to the development of its products and markets and over the years has seen rapid growth, both organically and through acquisition, to achieve a strong global presence within the energy industry. Currently ENER-G operates in the UK, the USA, the Netherlands, Norway, Poland, Hungary, Lithuania, Spain, Italy, Romania, Mexico and South Africa, with partners across the globe.</p>

ENER-G Rudox Inc

ER1900F HW

1932 kW





ENER-G Rudox Inc

ER1900FI HW

1932 kW

Description

Type of prime mover	Number of prime mover units	Synchronous, Inverter or Induction	Type	Black-Start Capable	Qualification Status
RICE	1	Synchronous	CHP-HW	Yes	Conditionally qualified

Performance

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	Hot Water to Building @ 180°F			NOx lbs/MWh
					MBtu/h	Return °F	Net System Efficiency % (HHV)	
100%	59°F	17464	1902	37.74	6457.7	160	78.82	1.2
	95°F	17464	1902	37.74	6457.7	160	78.82	1.2
75%	59°F	13537	1419	36.57	5150.4	160	78.82	1.2
	95°F	13537	1419	36.57	5150.4	160	78.82	1.2
50%	59°F	9579	936	34.41	3836.9	160	78.91	1.2
	95°F	9579	936	34.41	3836.9	160	78.91	1.2

Notes: 1 – All performance data based on fuel energy content of 1016 Btu/CF HHV

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*	20ft	47ft	15ft	68,500
Core system based on minimum width*	20ft	47ft	15ft	
Heat Rejection subsystem*	10ft	27ft	5ft	5,600
Largest part for delivery	10ft	43ft	11ft	68,500
Heaviest part for delivery	10ft	43ft	11ft	68,500

*Includes maintenance clearances.

Vendor Information

Ener-G Rudox Inc 180 East Union Avenue East Rutherford, NJ, 07072 (917)-281-0020, chp@energ-rudox.com www.energ-rudox.com

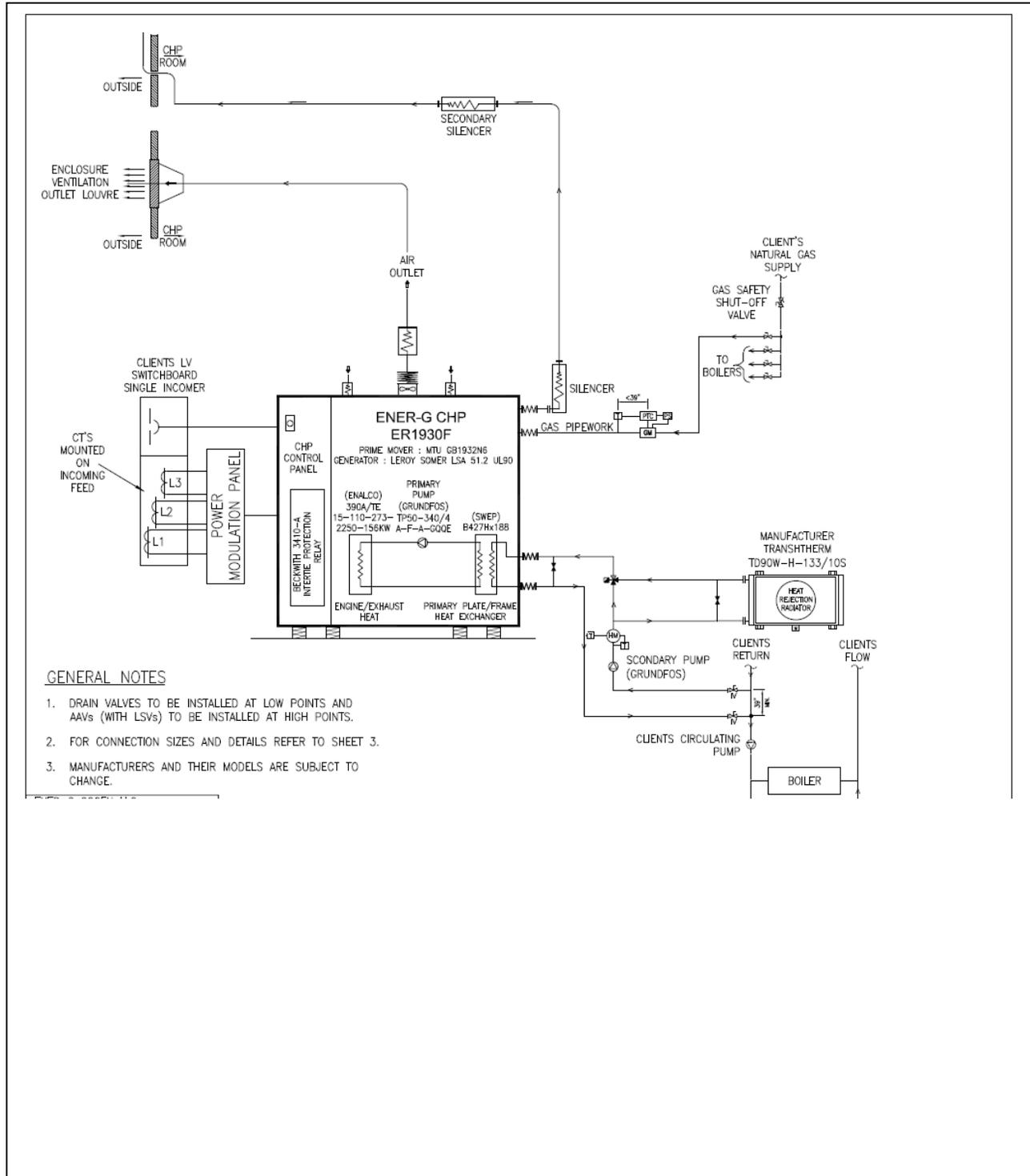
Vendor Statement

<p>ENER-G Rudox Inc, as part of the ENER-G Cogen International offers a range of efficient cogeneration and tri-generation systems from 80kwe to 2.1Mwe . Ener-G offers turnkey solutions, with in-house capabilities from Project Development, Financing, Design, Assembly, Delivery, Installation, Commissioning and on-going 24/7 maintenance with dedicated remote monitoring facilities based at our US Head office. We stock a full inventory of spare parts for all of our equipment.</p> <p>The demand for energy is ever growing whilst it is becoming increasingly expensive. Businesses and individuals are seeking to reduce their costs and carbon footprint. Ener-G Cogeneration can help.</p> <p>Ener-G offer flexible finance models, offering access to our energy solutions without the upfront capital expenditure normally required. ENER-G is 100% dedicated to the development of its products and markets and over the years has seen rapid growth, both organically and through acquisition, to achieve a strong global presence within the energy industry. Currently ENER-G operates in the UK, the USA, the Netherlands, Norway, Poland, Hungary, Lithuania, Spain, Italy, Romania, Mexico and South Africa, with partners across the globe.</p>

ENER-G Rudox Inc

ER1900FI HW

1932 kW





ENER-G Rudox Inc

ER2120F HW

2120 kW

Description

Type of prime mover	Number of prime mover units	Synchronous, Inverter or Induction	Type	Black-Start Capable	Qualification Status
RICE	1	Synchronous	CHP-HW	Yes	Conditionally qualified

Performance

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	Hot Water to Building @ 180°F			NOx lbs/MWh
					MBtu/h	Return °F	Net System Efficiency % (HHV)	
100%	59°F	19090	2109	38.11	6987.3	160	78.73	1.2
	95°F	19090	2109	38.11	6987.3	160	78.73	
75%	59°F	14735	1577	37.02	5550.4	160	78.82	1.2
	95°F	14735	1577	37.02	5550.4	160	78.82	
50%	59°F	10409	1045	34.95	4107.2	160	78.73	1.2
	95°F	10409	1045	34.95	4107.2	160	78.73	

Notes: 1 – All performance data based on fuel energy content of 1016 Btu/CF HHV

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*		20ft	50ft	16ft
Core system based on minimum width*		20ft	50ft	16ft
Heat Rejection subsystem*		10ft	30ft	5ft
Largest part for delivery		10ft	45ft	11ft
Heaviest part for delivery		10ft	45ft	11ft

*Includes maintenance clearances.

Vendor Information

Ener-G Rudox Inc 180 East Union Avenue East Rutherford, NJ, 07072 (917)-281-0020, chp@energ-rudox.com www.energ-rudox.com

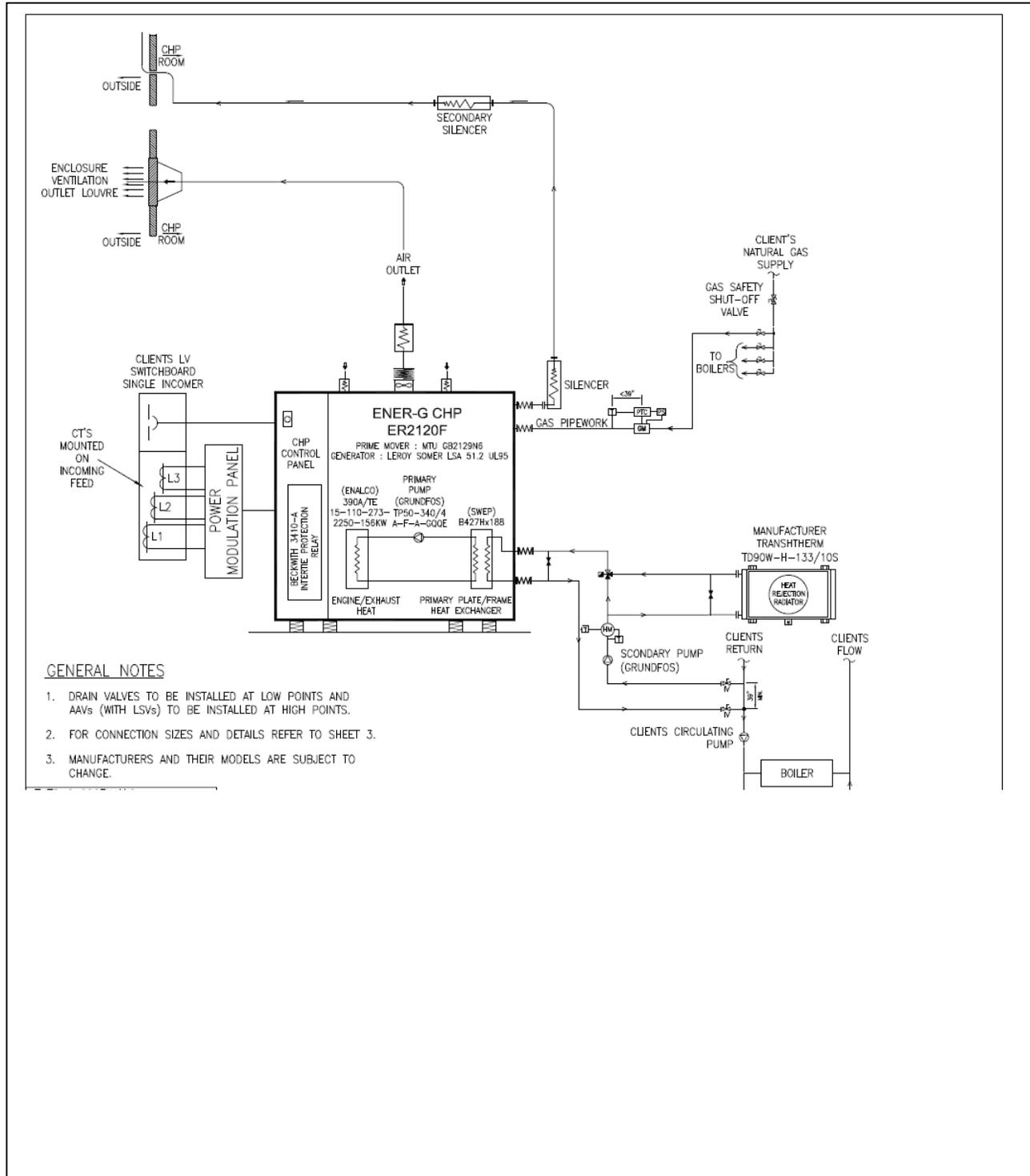
Vendor Statement

<p>ENER-G Rudox Inc, as part of the ENER-G Cogen International offers a range of efficient cogeneration and tri-generation systems from 80kwe to 2.1Mwe . Ener-G offers turnkey solutions, with in-house capabilities from Project Development, Financing, Design, Assembly, Delivery, Installation, Commissioning and on-going 24/7 maintenance with dedicated remote monitoring facilities based at our US Head office. We stock a full inventory of spare parts for all of our equipment.</p> <p>The demand for energy is ever growing whilst it is becoming increasingly expensive. Businesses and individuals are seeking to reduce their costs and carbon footprint. Ener-G Cogeneration can help.</p> <p>Ener-G offer flexible finance models, offering access to our energy solutions without the upfront capital expenditure normally required. ENER-G is 100% dedicated to the development of its products and markets and over the years has seen rapid growth, both organically and through acquisition, to achieve a strong global presence within the energy industry. Currently ENER-G operates in the UK, the USA, the Netherlands, Norway, Poland, Hungary, Lithuania, Spain, Italy, Romania, Mexico and South Africa, with partners across the globe.</p>

ENER-G Rudox Inc

ER2120F HW

2120 kW





ENER-G Rudox Inc

ER2120FI HW

2120 kW

Description

Type of prime mover	Number of prime mover units	Synchronous, Inverter or Induction	Type	Black-Start Capable	Qualification Status
RICE	1	Inverter	CHP-HW	Yes	Conditionally qualified

Performance

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	Hot Water to Building @ 180°F			NOx lbs/MWh
					MBtu/h	Return °F	Net System Efficiency % (HHV)	
100%	59°F	19090	2100	38.11	6987.3	160	78.73	1.2
	95°F	19090	2100	38.11	6987.3	160	78.73	
75%	59°F	14735	1569	37.02	5550.4	160	78.82	1.2
	95°F	14735	1569	37.02	5550.4	160	78.82	
50%	59°F	10409	1035	34.95	4107.2	160	78.73	1.2
	95°F	10409	1035	34.95	4107.2	160	78.73	

Notes: 1 – All performance data based on fuel energy content of 1016 Btu/CF HHV

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*	20ft	50ft	16ft	70,000
Core system based on minimum width*	20ft	50ft	16ft	
Heat Rejection subsystem*	10ft	30ft	5ft	6,600
Largest part for delivery	10ft	45ft	11ft	70,000
Heaviest part for delivery	10ft	45ft	11ft	70,000

*Includes maintenance clearances.

Vendor Information

<p>Ener-G Rudox Inc 180 East Union Avenue East Rutherford, NJ, 07072 (917)-281-0020, chp@energ-rudox.com www.energ-rudox.com</p>
--

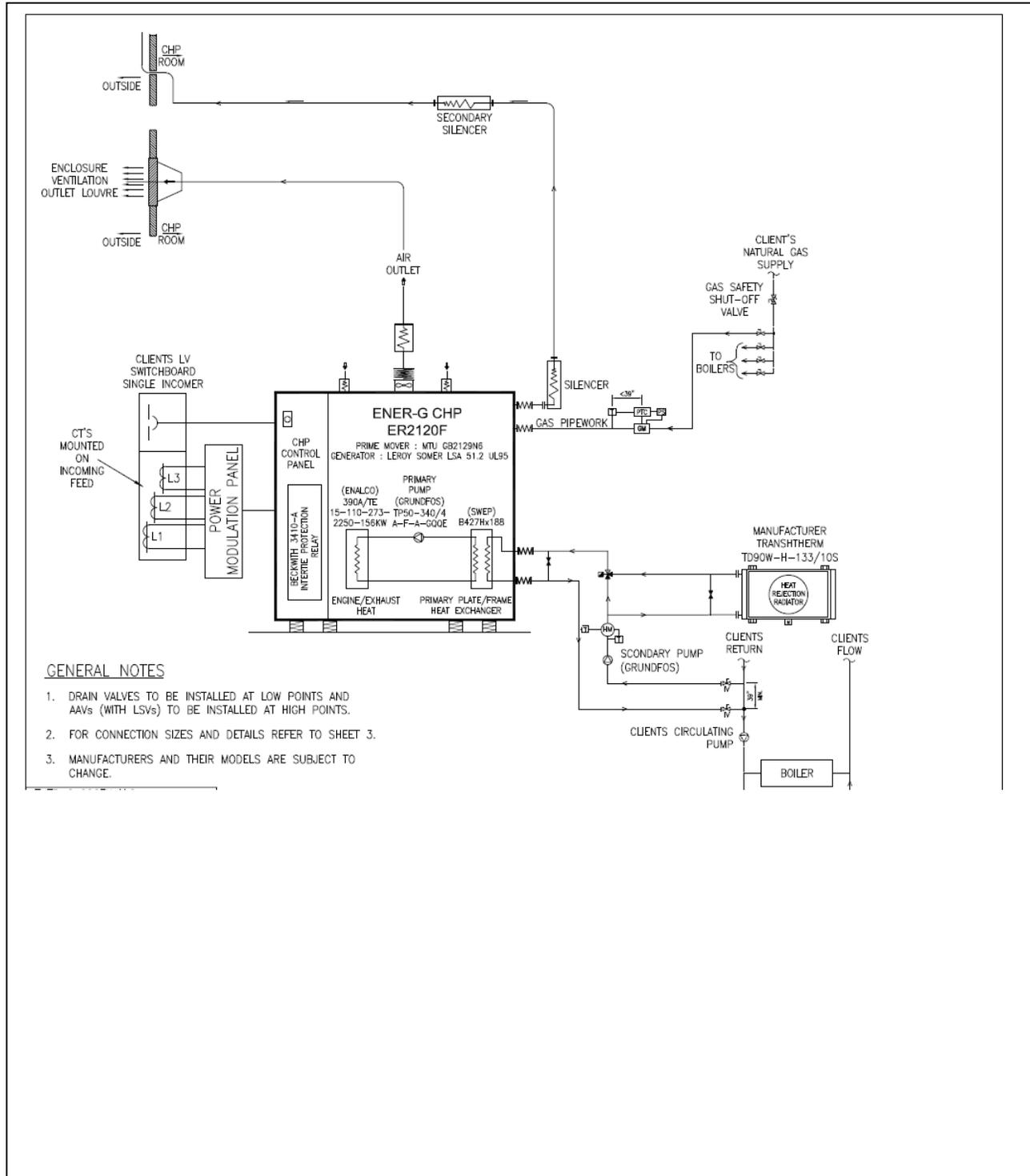
Vendor Statement

<p>ENER-G Rudox Inc, as part of the ENER-G Cogen International offers a range of efficient cogeneration and tri-generation systems from 80kwe to 2.1Mwe . Ener-G offers turnkey solutions, with in-house capabilities from Project Development, Financing, Design, Assembly, Delivery, Installation, Commissioning and on-going 24/7 maintenance with dedicated remote monitoring facilities based at our US Head office. We stock a full inventory of spare parts for all of our equipment.</p> <p>The demand for energy is ever growing whilst it is becoming increasingly expensive. Businesses and individuals are seeking to reduce their costs and carbon footprint. Ener-G Cogeneration can help.</p> <p>Ener-G offer flexible finance models, offering access to our energy solutions without the upfront capital expenditure normally required. ENER-G is 100% dedicated to the development of its products and markets and over the years has seen rapid growth, both organically and through acquisition, to achieve a strong global presence within the energy industry. Currently ENER-G operates in the UK, the USA, the Netherlands, Norway, Poland, Hungary, Lithuania, Spain, Italy, Romania, Mexico and South Africa, with partners across the globe.</p>

ENER-G Rudox Inc

ER2120FI HW

2120 kW





FlexEnergy Inc.

GT250S

250 kW

Description

Type of prime mover	Number of prime mover units	Synchronous, Inverter or Induction	Type	Black-Start Capable	Qualification Status
Microturbine	1	Synchronous	CHP-HW	Yes	Conditionally qualified

Performance

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	Hot Water to Building @ 180°F			NOx lbs/MWh
					MBtu/h	Return °F	Net System Efficiency % (HHV)	
100%	59°F	3224	242	25.6	1266	168.5	64.9	0.10
	95°F	2864	195	23.2	1271	168	67.6	0.09
75%	59°F	2962	180	20.7	1195	169	61.1	0.2
	95°F	2675	145	18.5	1228	168.5	64.4	0.21
60%	59°F	2876	143	18.9	1151	169.5	56.7	1.5
	95°F	2600	116	16.9	1185	169	60.8	1.6

Notes: 1 – All performance data based on fuel energy content of 1020 Btu/CF HHV

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*	16.3	20.8	7.6 w/o stack	15,100
			13.2 w/ stack	
Core system based on minimum width*	16.3	20.8	7.6 w/o stack 13.2 w/ stack	
Heat Rejection subsystem*	Integrated	Integrated	Integrated	Integrated
Largest part for delivery	6.4	13.9	7.6 w/o stack 13.2 w/ stack	14,500
Heaviest part for delivery	6.4	13.9	7.6 w/o stack 13.2 w/ stack	14,500

*Includes maintenance clearances.

Vendor Information

FlexEnergy Inc. 30 New Hampshire Ave Portsmouth, NH 03801 (603)-430-7000, info@flexenergy.com www.flexenergy.com

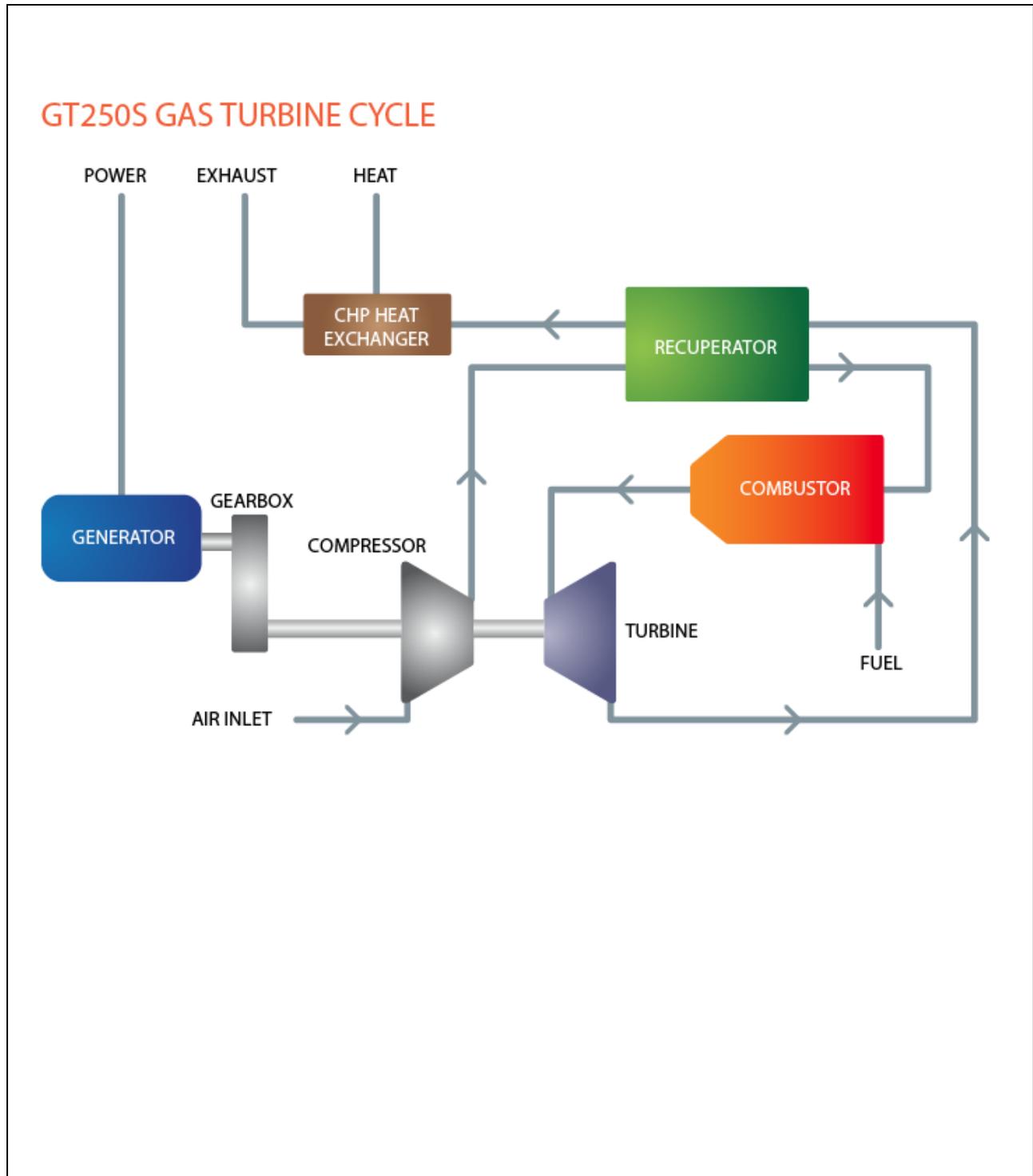
Vendor Statement

The Flex Turbine® GT250S uses low cost natural gas to generate onsite power and heat for customers that are seeking an alternative to paying for costly and unpredictable utility power. Through Closed-Transition Dual Mode functionality, the GT250S also provides seamless energy security in the case of a grid outage. In addition, FlexEnergy’s unique integrated hot water cogeneration module combined with the durability of an industrial grade turbine package provides customers with a simple, quiet and reliable source of onsite heat and power.

FlexEnergy Inc.

GT250S

250 kW





FlexEnergy Inc.

GT333S

330 kW

Description

Type of prime mover	Number of prime mover units	Synchronous, Inverter or Induction	Type	Black-Start Capable	Qualification Status
Microturbine	1	Synchronous	CHP-HW	Yes	Conditionally qualified

Performance

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	Hot Water to Building @ 180°F			NOx lbs/MWh
					MBtu/h	Return °F	Net System Efficiency % (HHV)	
100%	59°F	3855	318	28.2	1432	167	65.5	0.10
	95°F	3508	263	25.6	1489	166	68.0	0.09
75%	59°F	2996	238	27.1	1070	171	62.8	0.04
	95°F	2740	197	24.5	1136	170	66.0	0.13
55%	59°F	2565	175	23.3	930	171.5	59.5	0.95
	95°F	2390	144	20.5	1001	171	62.4	1.2

Notes: 1 – All performance data based on fuel energy content of 1020 Btu/CF HHV

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*	16.3	20.8	7.6 w/o stack 13.2 w/ stack	15,100
Core system based on minimum width*	16.3	20.8	7.6 w/o stack 13.2 w/ stack	
Heat Rejection subsystem*	Integrated	Integrated	Integrated	Integrated
Largest part for delivery	6.4	13.9	7.6 w/o stack 13.2 w/ stack	14,500
Heaviest part for delivery	6.4	13.9	7.6 w/o stack 13.2 w/ stack	14,500

*Includes maintenance clearances.

Vendor Information

FlexEnergy Inc. 30 New Hampshire Ave Portsmouth, NH 03801 (603)-430-7000, info@flexenergy.com www.flexenergy.com

Vendor Statement

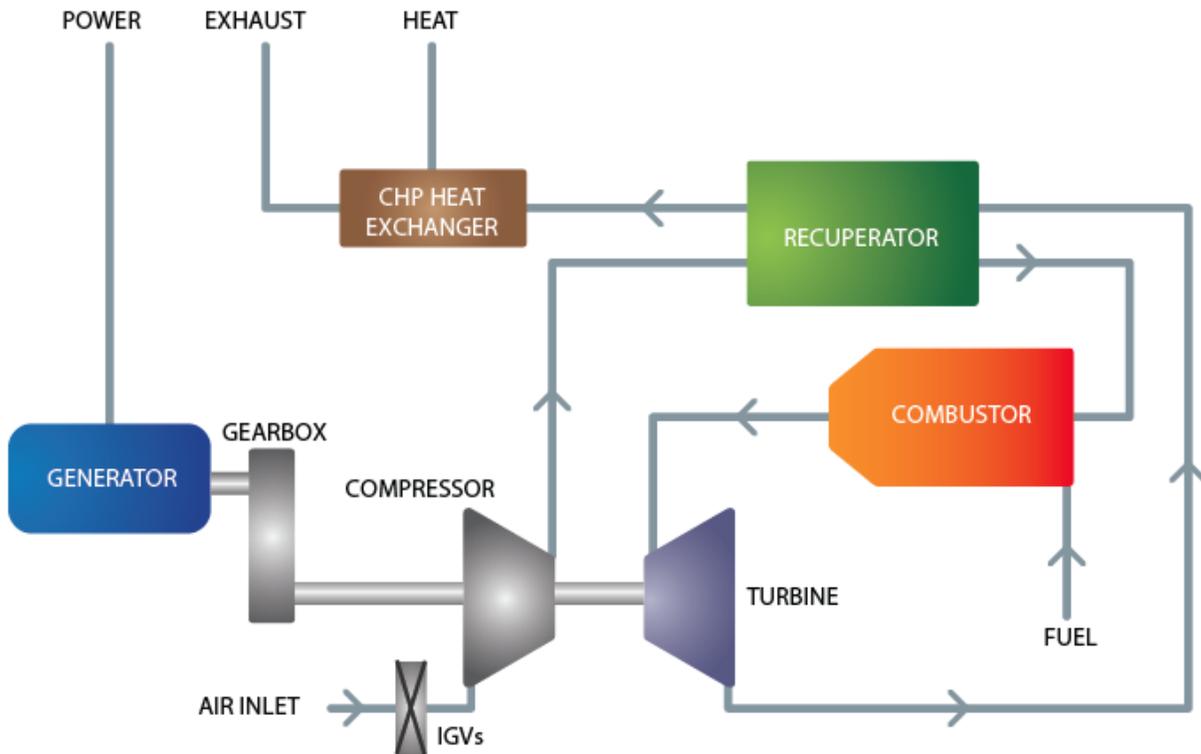
The Flex Turbine® GT333S uses low cost natural gas to generate onsite power and heat for customers that are seeking an alternative to paying for costly and unpredictable utility power. Through Closed-Transition Dual Mode functionality, the GT333S also provides seamless energy security in the case of a grid outage. In addition, FlexEnergy’s unique integrated hot water cogeneration module combined with the durability of an industrial grade turbine package provides customers with a simple, quiet and reliable source of onsite heat and power.

FlexEnergy Inc.

GT333S

330 kW

GT333S GAS TURBINE CYCLE





GEM Energy

IPS-65-CHP

65 kW

Description

Type of prime mover	Number of prime mover units	Synchronous or Inverter	Type	Black-Start Capable	Qualification Status
Microturbine	1	Inverter	CHP-HW	Yes	Pre-qualified

Performance

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	Hot Water to Building @ 180°F			NOx lbs/MWh
					MBtu/h	Return °F	Net System Efficiency % (HHV)	
100%	59°F	842	61.0	24.7	362	161.5	67.7	0.46
	95°F	777	51.3	22.5	369	161.1	70.0	0.46
75%	59°F	652	44.8	23.4	286	165.3	67.3	0.46
	95°F	705	44.8	21.7	333	162.9	68.9	0.46
25%	59°F	301	12.3	13.9	135	173.1	58.6	0.46
	95°F	347	12.3	12.0	155	172.1	56.7	0.46

Notes: 1 – All performance data based on fuel energy content of 1000 Btu/CF HHV

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*	7.5	16.5	8.3	3,620
Core system based on minimum width*	7.5	16.5	8.3	
Heat Rejection subsystem*	N/A	N/A	N/A	N/A
Largest part for delivery	2.5	6.4	6.3	2,471
Heaviest part for delivery	2.5	6.4	6.3	2,471

*Includes maintenance clearances.

Vendor Information

GEM Energy 950 Danby Rd Suite 212 Ithaca, NY 14850 (866) 720-2700 Lauren.Ray@rlgbuilds.com gemenergycapstone.com
--

Vendor Statement

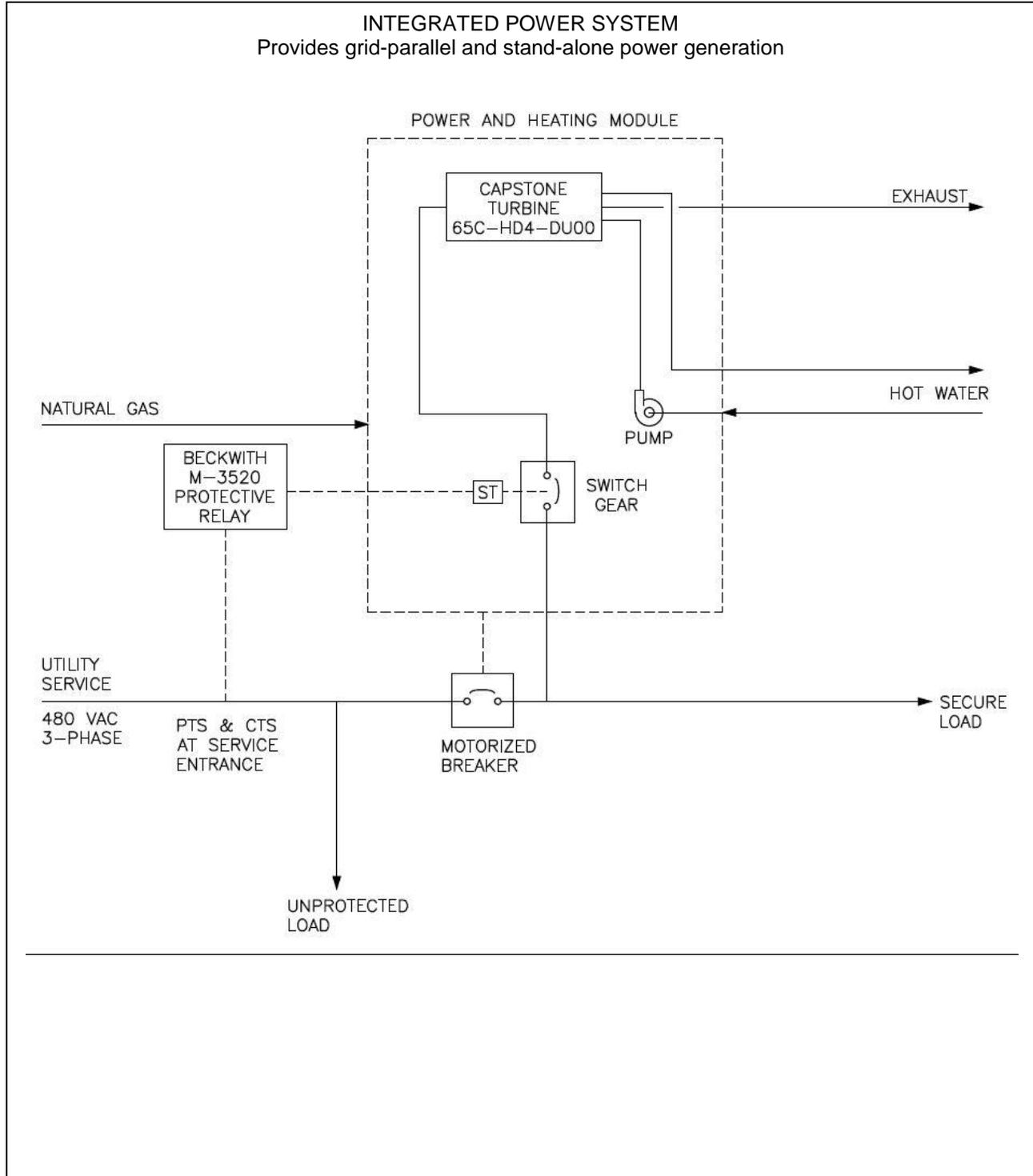
GEM Energy provides comprehensive energy technology integration services with a focus on advanced power generation, heating and cooling systems for commercial, industrial, institutional, and mission critical facilities. Our systems utilize Capstone MicroTurbines as the prime mover to offer high reliability, ultra-low emissions, and a low total cost of ownership. These systems can be packaged in a space conscious pre-engineered container or building integrated format.



GEM Energy

IPS-65-CHP

65 kW





GEM Energy

IPS-130-CCHP

130 kW

Description

Type of prime mover	Number of prime mover units	Synchronous or Inverter	Type	Black-Start Capable	Qualification Status
Microturbine	2	Inverter	CCHP	Yes	Conditionally qualified

Performance - Heating Mode

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	Hot Water to Building @ 180°F			NOx lbs/MWh
					MBtu/h	Return °F	Net System Efficiency % (HHV)	
100%	59°F	1684	122.0	24.7	724	161.5	67.7	0.46
	95°F	1553	102.6	22.5	738	161.1	70.0	0.46
75%	59°F	1305	89.5	23.4	572	165.3	67.3	0.46
	95°F	1409	89.5	21.7	666	162.9	68.9	0.46
25%	59°F	603	24.5	13.9	269	173.1	58.6	0.46
	95°F	694	24.5	12.0	310	172.1	56.7	0.46

¹ All performance data based on fuel energy content of 1000 Btu/CF HHV

Performance – Cooling Mode

Ambient DB/WB	Fuel in MBtu/h (HHV)	Net Prime Mover kW	Prime Mover Hot Water Supply to Chiller			Chiller			Chiller Cooling Tower Water		
			MBtu/h	Supply °F	Return °F	Capacity ² tons	Coefficient of Performance	Parasitic kW	gpm	Supply °F	Return °F
95/78°F	1553	102.6	716	191	173	40	0.7	0.67	405	83	89.2

² Using heat from the prime mover. 45 °F chilled water output.

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*	12.9	25.5	8.3	12,000
Core system based on minimum width*	10.5	38.9	8.3	
PM Heat Rejection subsystem*	N/A	N/A	N/A	N/A
Chiller Cooling Tower*	8.0 diam.	8.0 diam.	12.7	1,510
Largest part for delivery	7.0 diam.	7.0 diam.	12.2	1,510
Heaviest part for delivery	5.86	6.43	6.84	4,740

*Includes maintenance clearances.

Vendor Information

<p>GEM Energy 950 Danby Rd Suite 212 Ithaca, NY 14850 (866) 720-2700 Lauren.Ray@rlgbuilds.com gemenergycapstone.com</p>

Vendor Statement

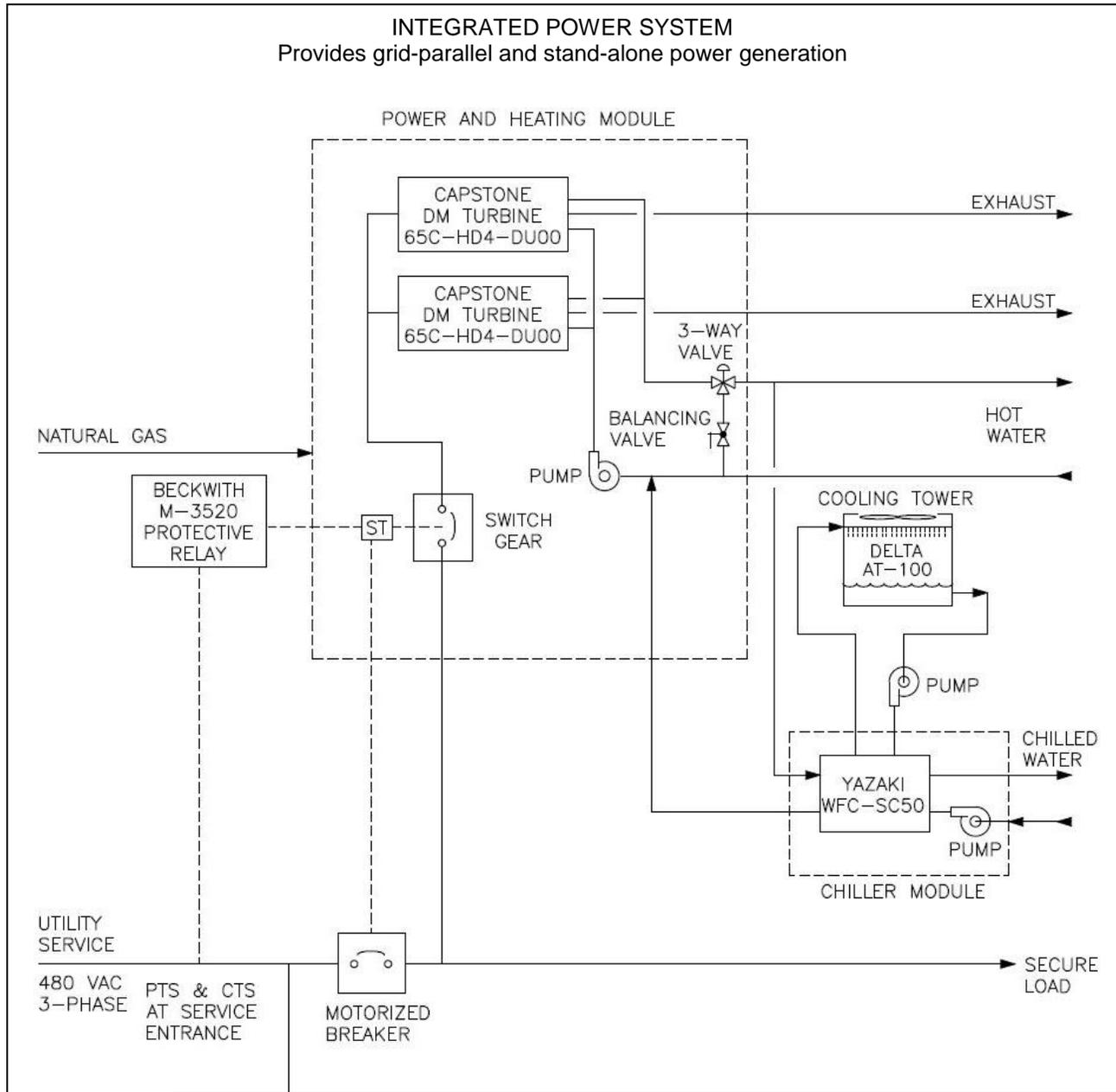
GEM Energy provides comprehensive energy technology integration services with a focus on advanced power generation, heating and cooling systems for commercial, industrial, institutional, and mission critical facilities. Our systems utilize Capstone MicroTurbines as the prime mover to offer high reliability, ultra-low emissions, and a low total cost of ownership. These systems can be packaged in a space conscious pre-engineered container or building integrated format.



GEM Energy

IPS-130-CCHP

130 kW





GEM Energy

IPS-130-CHP

130 kW

Description

Type of prime mover	Number of prime mover units	Synchronous or Inverter	Type	Black-Start Capable	Qualification Status
Microturbine	2	Inverter	CHP-HW	Yes	Pre-qualified

Performance

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	Hot Water to Building @ 180°F			NOx lbs/MWh
					MBtu/h	Return °F	Net System Efficiency % (HHV)	
100%	59°F	1684	122.0	24.7	724	161.5	67.7	0.46
	95°F	1553	102.6	22.5	738	161.1	70.0	0.46
75%	59°F	1305	89.5	23.4	572	165.3	67.3	0.46
	95°F	1409	89.5	21.7	666	162.9	68.9	0.46
25%	59°F	603	24.5	13.9	269	173.1	58.6	0.46
	95°F	694	24.5	12.0	310	172.1	56.7	0.46

Notes: 1 – All performance data based on fuel energy content of 1000 Btu/CF HHV

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*	12.5	16.5	8.3	7,240
Core system based on minimum width*	7.5	27.5	8.3	
Heat Rejection subsystem*	N/A	N/A	N/A	N/A
Largest part for delivery	2.5	6.4	6.3	2,471
Heaviest part for delivery	2.5	6.4	6.3	2,471

*Includes maintenance clearances.

Vendor Information

GEM Energy 950 Danby Rd Suite 212 Ithaca, NY 14850 (866) 720-2700 Lauren.Ray@rlgbuilds.com gemenergycapstone.com
--

Vendor Statement

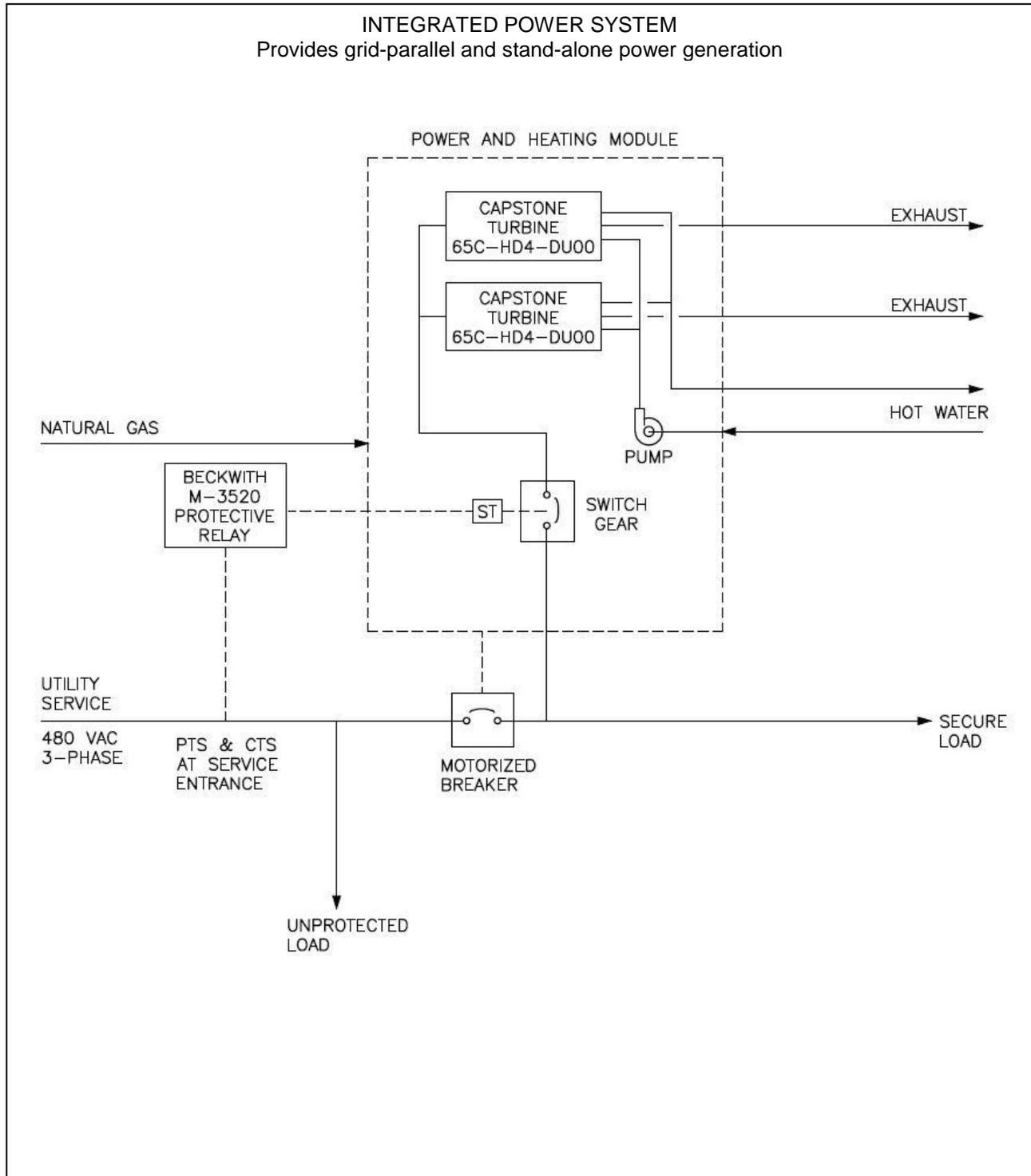
GEM Energy provides comprehensive energy technology integration services with a focus on advanced power generation, heating and cooling systems for commercial, industrial, institutional, and mission critical facilities. Our systems utilize Capstone MicroTurbines as the prime mover to offer high reliability, ultra-low emissions, and a low total cost of ownership. These systems can be packaged in a space conscious pre-engineered container or building integrated format.



GEM Energy

IPS-130-CHP

130 kW





GEM Energy

IPS-195-CHP

195 kW

Description

Type of prime mover	Number of prime mover units	Synchronous or Inverter	Type	Black-Start Capable	Qualification Status
Microturbine	3	Inverter	CHP-HW	Yes	Pre-qualified

Performance

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	Hot Water to Building @ 180°F			NOx lbs/MWh
					MBtu/h	Return °F	Net System Efficiency % (HHV)	
100%	59°F	2526	183.0	24.7	1086	161.5	67.7	0.46
	95°F	2330	153.9	22.5	1107	161.1	70.0	0.46
75%	59°F	1957	134.3	23.4	858	165.3	67.3	0.46
	95°F	2114	134.3	21.7	999	162.9	68.9	0.46
25%	59°F	904	36.8	13.9	404	173.1	58.6	0.46
	95°F	1042	36.8	12.0	465	172.1	56.7	0.46

Notes: 1 – All performance data based on fuel energy content of 1000 Btu/CF HHV

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*	12.5	27.5	8.3	10,860
Core system based on minimum width*	7.5	41.4	8.3	
Heat Rejection subsystem*	N/A	N/A	N/A	N/A
Largest part for delivery	2.5	6.4	6.3	2,471
Heaviest part for delivery	2.5	6.4	6.3	2,471

*Includes maintenance clearances.

Vendor Information

GEM Energy 950 Danby Rd Suite 212 Ithaca, NY 14850 (866) 720-2700 Lauren.Ray@rlgbuilds.com gemenergycapstone.com
--

Vendor Statement

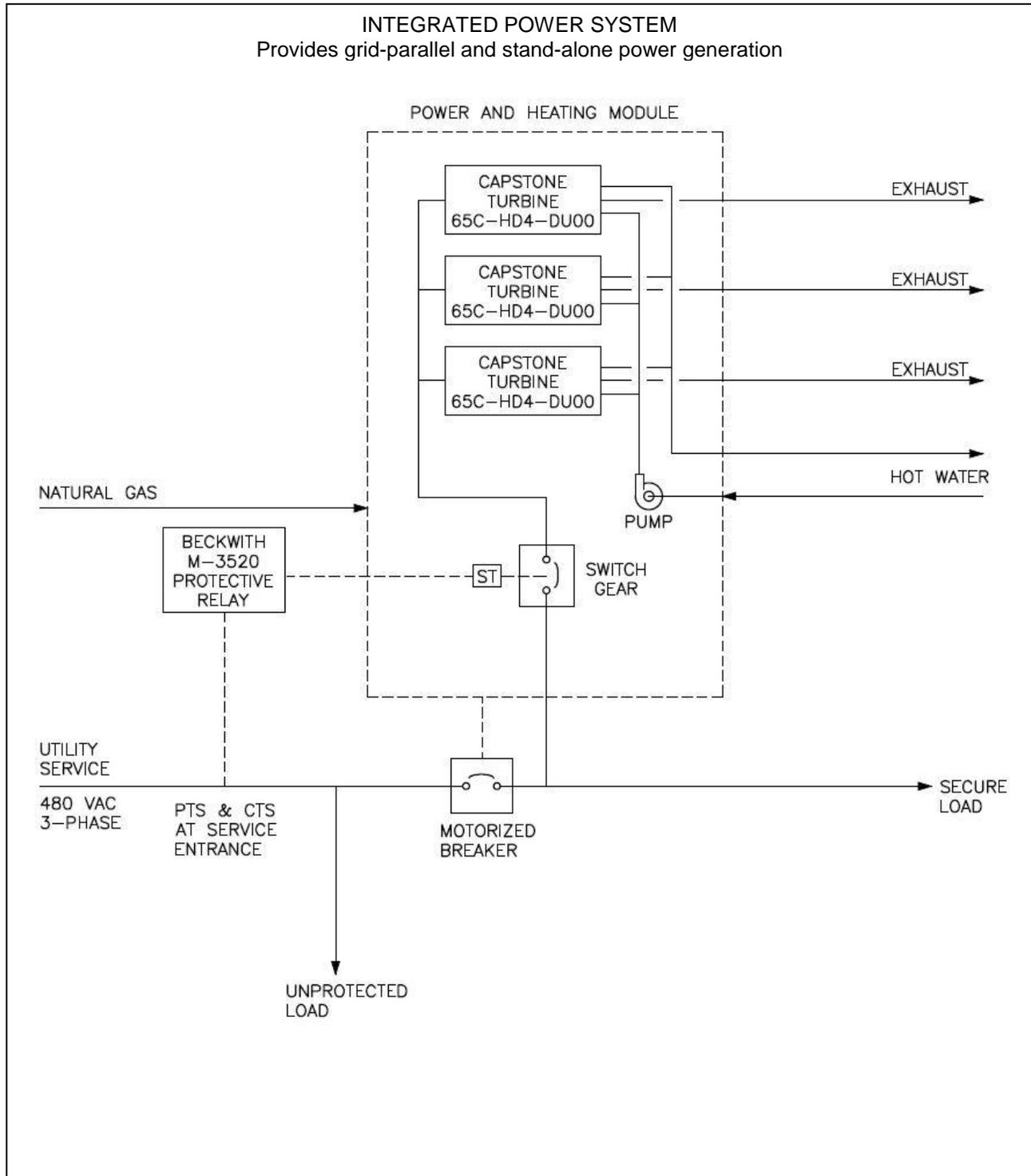
GEM Energy provides comprehensive energy technology integration services with a focus on advanced power generation, heating and cooling systems for commercial, industrial, institutional, and mission critical facilities. Our systems utilize Capstone MicroTurbines as the prime mover to offer high reliability, ultra-low emissions, and a low total cost of ownership. These systems can be packaged in a space conscious pre-engineered container or building integrated format.



GEM Energy

IPS-195-CHP

195 kW





GEM Energy
Description

IPS-260-CCHP

260 kW

Type of prime mover	Number of prime mover units	Synchronous or Inverter	Type	Black-Start Capable	Qualification Status
Microturbine	4	Inverter	CCHP	Yes	Conditionally qualified

Performance - Heating Mode

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	Hot Water to Building @ 180°F			NOx lbs/MWh
					MBtu/h	Return °F	Net System Efficiency % (HHV)	
100%	59°F	3368	244.0	24.7	1275	159.9	62.6	0.46
	95°F	3106	205.2	22.5	1383	158.2	67.1	0.46
75%	59°F	2609	179.0	23.4	1009	164.1	62.1	0.46
	95°F	2818	179.0	21.7	1264	160.1	66.5	0.46
25%	59°F	1206	49.0	13.9	508	172.0	56.0	0.46
	95°F	1389	49.0	12.0	672	169.4	60.4	0.46

¹ All performance data based on fuel energy content of 1000 Btu/CF HHV

Performance – Cooling Mode

Ambient DB/WB	Fuel in MBtu/h (HHV)	Net Prime Mover kW	Prime Mover Exhaust to Chiller			Chiller			Chiller Cooling Tower Water		
			MBtu/h	To Chiller °F	From Chiller °F	Capacity ² tons	Coefficient of Performance	Parasitic kW	gpm	Supply °F	Return °F
95/78°F	3106	205.2	1020	619	357	91	1.21	2	423	85	95

² Using heat from the prime mover. 45 °F chilled water output.

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*	25	49	14.5	50,700
Core system based on minimum width*	14	82	14.5	
PM Heat Rejection subsystem*	N/A	N/A	N/A	N/A
Chiller Cooling Tower*	14 diam.	14 diam.	15	1,900
Largest part for delivery	7.55	9.2	7.88	11,025
Heaviest part for delivery	7.55	9.2	7.88	11,025

*Includes maintenance clearances.

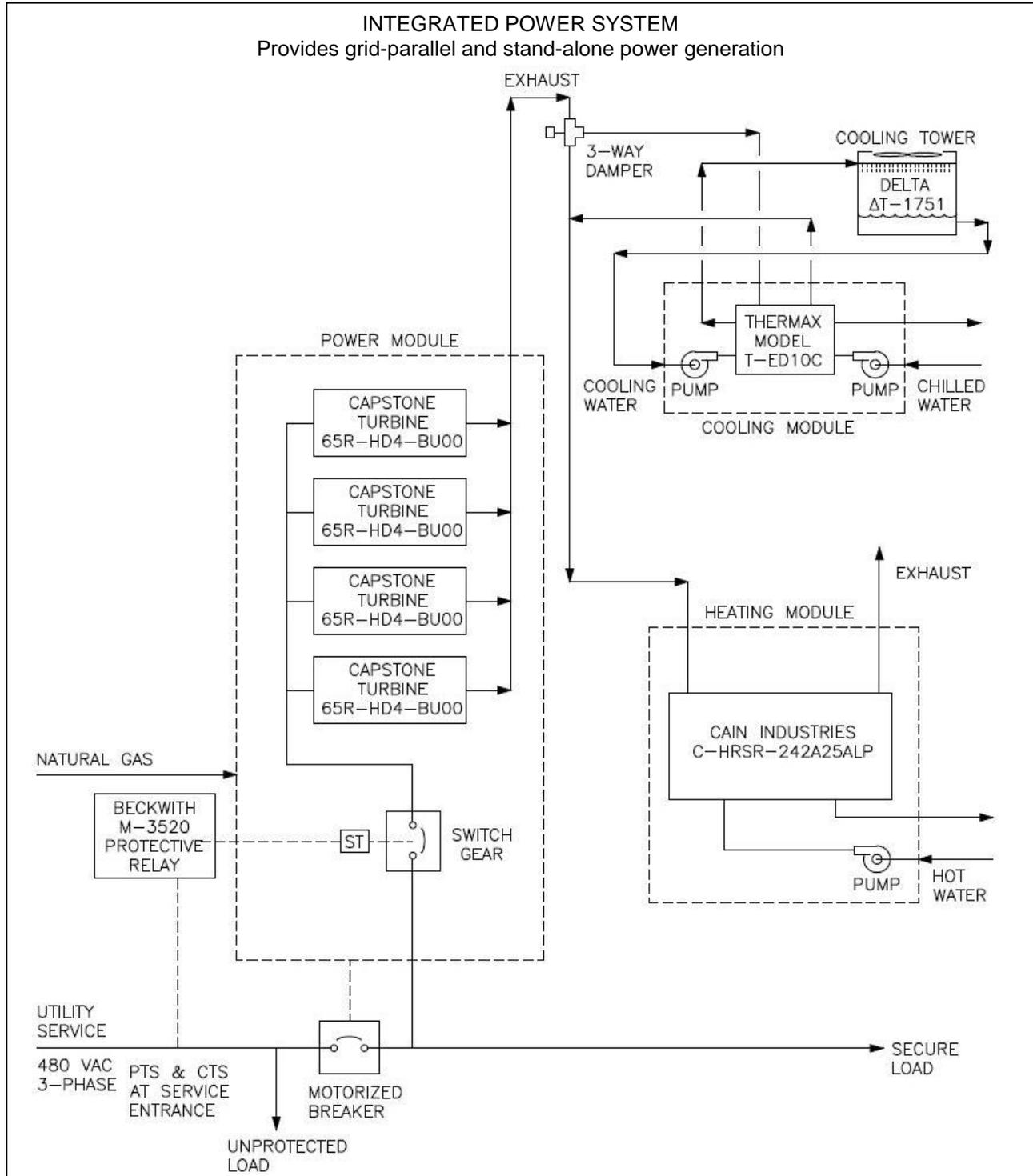
Vendor Information

GEM Energy 950 Danby Rd Suite 212 Ithaca, NY 14850 (866) 720-2700 Lauren.Ray@rlgbuilds.com gemenergycapstone.com
--

Vendor Statement

GEM Energy provides comprehensive energy technology integration services with a focus on advanced power generation, heating and cooling systems for commercial, industrial, institutional, and mission critical facilities. Our systems utilize Capstone MicroTurbines as the prime mover to offer high reliability, ultra-low emissions, and a low total cost of ownership. These systems can be packaged in a space conscious pre-engineered container or building integrated format.







GEM Energy

IPS-260-CHP

260 kW

Description

Type of prime mover	Number of prime mover units	Synchronous or Inverter	Type	Black-Start Capable	Qualification Status
Microturbine	4	Inverter	CHP-HW	Yes	Pre-qualified

Performance

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	Hot Water to Building @ 180°F			NOx lbs/MWh
					MBtu/h	Return °F	Net System Efficiency % (HHV)	
100%	59°F	3368	244.0	24.7	1448	161.5	67.7	0.46
	95°F	3106	205.2	22.5	1476	161.1	70.0	0.46
75%	59°F	2609	179.0	23.4	1145	165.3	67.3	0.46
	95°F	2818	179.0	21.7	1332	162.9	68.9	0.46
25%	59°F	1206	49.0	13.9	539	173.1	58.6	0.46
	95°F	1389	49.0	12.0	620	172.1	56.7	0.46

Notes: 1 – All performance data based on fuel energy content of 1000 Btu/CF HHV

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*	12.5	27.5	8.3	14,480
Core system based on minimum width*	7.5	52.4	8.3	
Heat Rejection subsystem*	N/A	N/A	N/A	N/A
Largest part for delivery	2.5	6.4	6.3	2,471
Heaviest part for delivery	2.5	6.4	6.3	2,471

*Includes maintenance clearances.

Vendor Information

GEM Energy 950 Danby Rd Suite 212 Ithaca, NY 14850 (866) 720-2700 Lauren.Ray@rlgbuilds.com gemenergycapstone.com
--

Vendor Statement

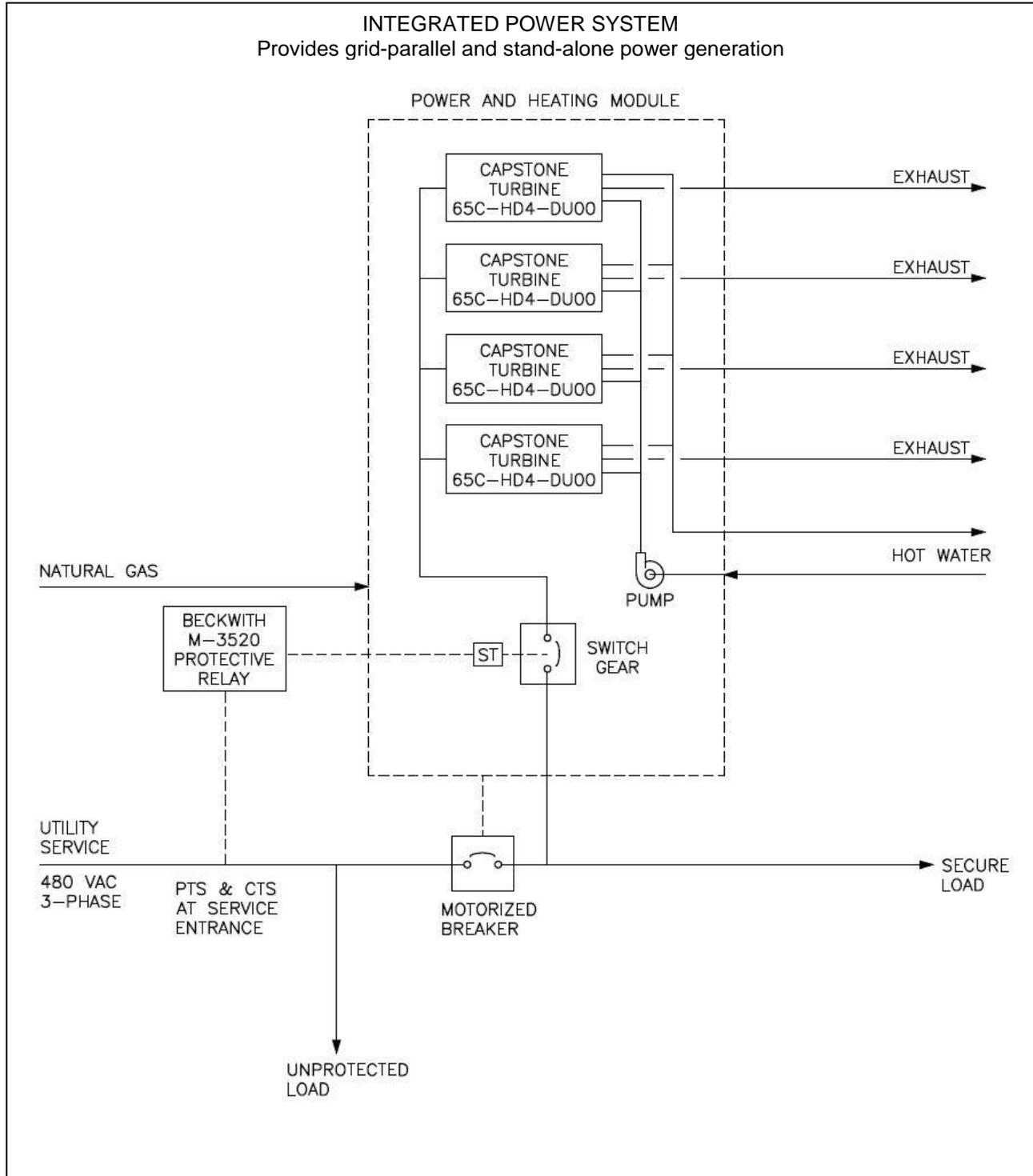
GEM Energy provides comprehensive energy technology integration services with a focus on advanced power generation, heating and cooling systems for commercial, industrial, institutional, and mission critical facilities. Our systems utilize Capstone MicroTurbines as the prime mover to offer high reliability, ultra-low emissions, and a low total cost of ownership. These systems can be packaged in a space conscious pre-engineered container or building integrated format.



GEM Energy

IPS-260-CHP

260 kW





GEM Energy

MCPS-260-CCHP

260 kW

Description

Type of prime mover	Number of prime mover units	Synchronous or Inverter	Type	Black-Start Capable	Qualification Status
Microturbine	4	Inverter	CCHP	Yes	Conditionally qualified

Performance - Heating Mode

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	Hot Water to Building @ 180°F			NOx lbs/MWh
					MBtu/h	Return °F	Net System Efficiency % (HHV)	
100%	59°F	3368	244.0	24.7	1275	159.9	62.6	0.46
	95°F	3106	205.2	22.5	1383	158.2	67.1	0.46
75%	59°F	2609	179.0	23.4	1009	164.1	62.1	0.46
	95°F	2818	179.0	21.7	1264	160.1	66.5	0.46
25%	59°F	1206	49.0	13.9	508	172.0	56.0	0.46
	95°F	1389	49.0	12.0	672	169.4	60.4	0.46

¹ All performance data based on fuel energy content of 1000 Btu/CF HHV

Performance – Cooling Mode

Ambient DB/WB	Fuel in MBtu/h (HHV)	Net Prime Mover kW	Prime Mover Exhaust to Chiller			Chiller			Chiller Cooling Tower Water		
			MBtu/h	To Chiller°F	From Chiller°F	Capacity ² tons	Coefficient of Performance	Parasitic kW	gpm	Supply °F	Return °F
95/78°F	3106	205.2	1020	619	357	91	1.21	2	423	85	95

² Using heat from the prime mover. 45 °F chilled water output.

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*	25	49	14.5	63,000
Core system based on minimum width*	14	92	14.5	
PM Heat Rejection subsystem*	N/A	N/A	N/A	N/A
Chiller Cooling Tower*	14 diam.	14 diam.	15	1,900
Largest part for delivery	7.55	9.2	7.88	11,025
Heaviest part for delivery	7.55	9.2	7.88	11,025

*Includes maintenance clearances.

Vendor Statement

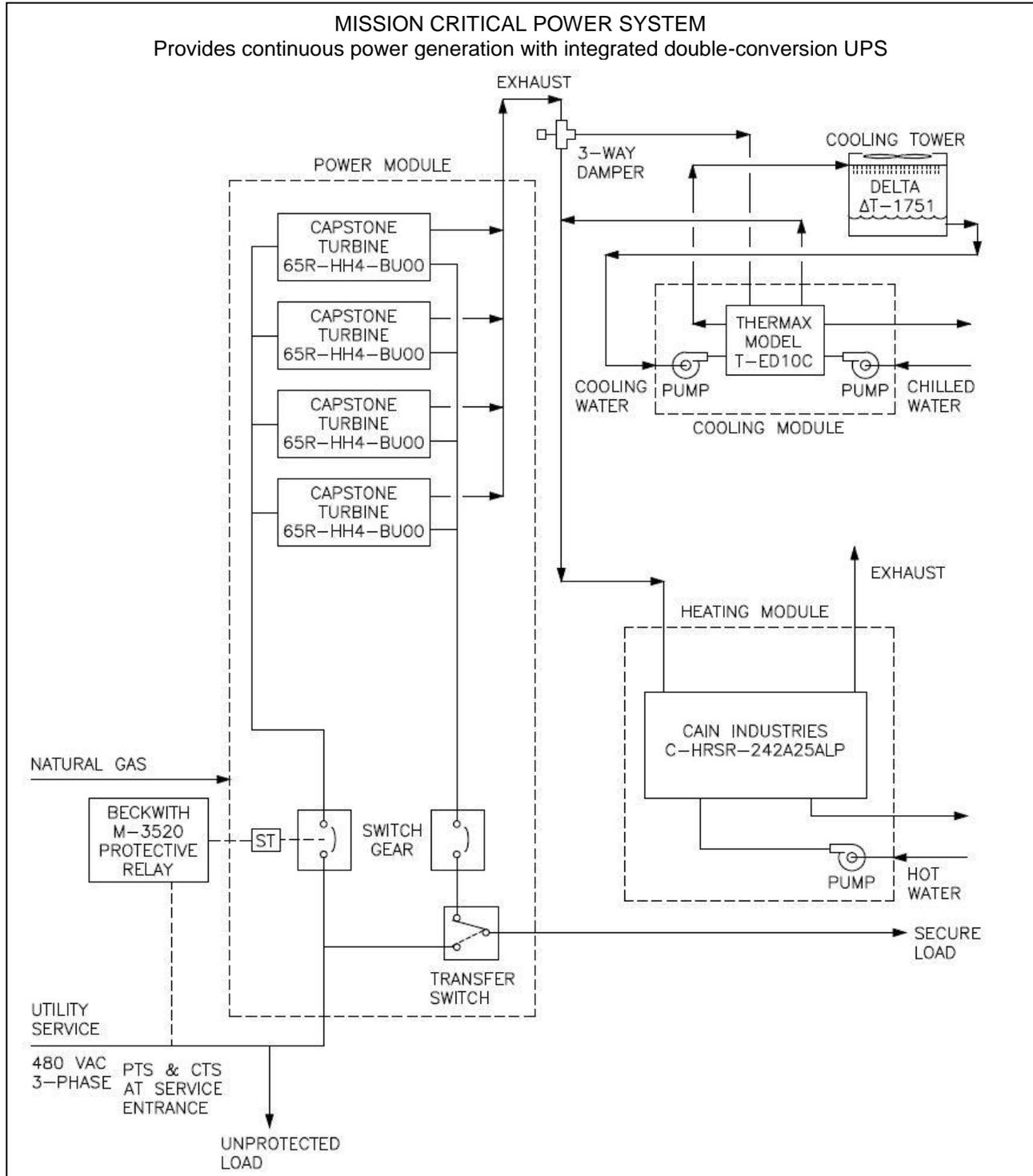
GEM Energy provides comprehensive energy technology integration services with a focus on advanced power generation, heating and cooling systems for commercial, industrial, institutional, and mission critical facilities. Our systems utilize Capstone MicroTurbines as the prime mover to offer high reliability, ultra-low emissions, and a low total cost of ownership. These systems can be packaged in a space conscious pre-engineered container or building integrated format.



Vendor Information

GEM Energy 950 Danby Rd Suite 212 Ithaca, NY 14850 (866) 720-2700 Lauren.Ray@rlgbuilds.com gemenergycapstone.com
--

NYSERDA CHP Program PON 2568
Version 4 Revised July 2016
For the most recent version go to
<http://www.nyserdera.ny.gov/pon2568>





GEM Energy

MCPS-260-CHP

260 kW

Description

Type of prime mover	Number of prime mover units	Synchronous or Inverter	Type	Black-Start Capable	Qualification Status
Microturbine	4	Inverter	CHP-HW	Yes	Pre-qualified

Performance

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	Hot Water to Building @ 180°F			NOx lbs/MWh
					MBtu/h	Return °F	Net System Efficiency % (HHV)	
100%	59°F	3368	244.0	24.7	1275	159.9	62.6	0.46
	95°F	3106	205.2	22.5	1383	158.2	67.1	0.46
75%	59°F	2609	179.0	23.4	1009	164.1	62.1	0.46
	95°F	2818	179.0	21.7	1264	160.1	66.5	0.46
25%	59°F	1206	49.0	13.9	508	172.0	56.0	0.46
	95°F	1389	49.0	12.0	672	169.4	60.4	0.46

Notes: 1 – All performance data based on fuel energy content of 1000 Btu/CF HHV

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*	22	46	14.5	42,000
Core system based on minimum width*	14	54.5	14.5	
Heat Rejection subsystem*	N/A	N/A	N/A	N/A
Largest part for delivery	4.75	5.5	8.73	3,670
Heaviest part for delivery	4.75	5.5	8.73	3,670

*Includes maintenance clearances.

Vendor Information

GEM Energy 950 Danby Rd Suite 212 Ithaca, NY 14850 (866) 720-2700 Lauren.Ray@rlgbuilds.com gemenergycapstone.com
--

Vendor Statement

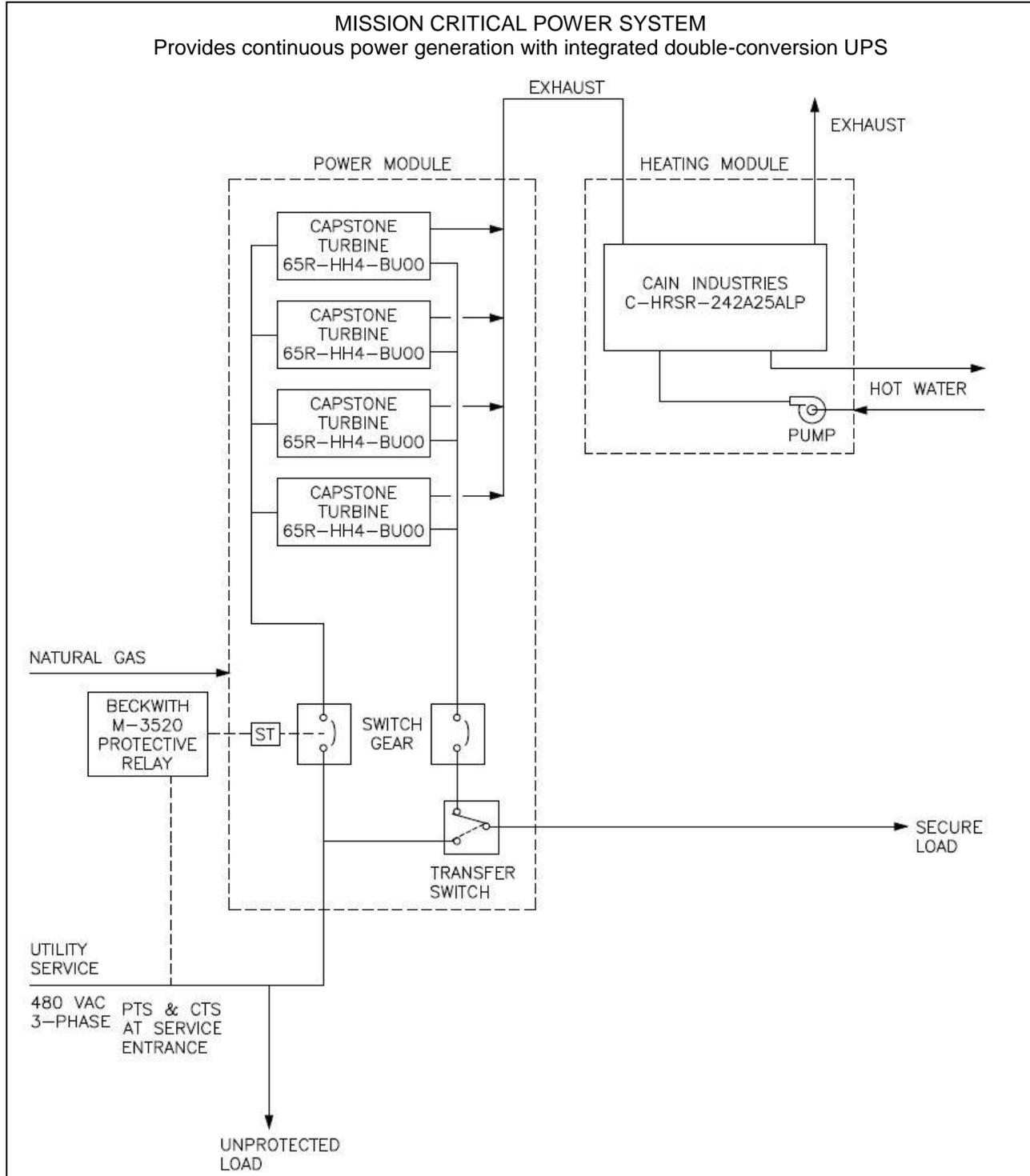
GEM Energy provides comprehensive energy technology integration services with a focus on advanced power generation, heating and cooling systems for commercial, industrial, institutional, and mission critical facilities. Our systems utilize Capstone MicroTurbines as the prime mover to offer high reliability, ultra-low emissions, and a low total cost of ownership. These systems can be packaged in a space conscious pre-engineered container or building integrated format.



GEM Energy

MCPS-260-CHP

260 kW





GEM Energy

IPS-390-CCHP

390 kW

Description

Type of prime mover	Number of prime mover units	Synchronous or Inverter	Type	Black-Start Capable	Qualification Status
Microturbine	6	Inverter	CCHP	Yes	Conditionally qualified

Performance - Heating Mode

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	Hot Water to Building @ 180°F			NOx lbs/MWh
					MBtu/h	Return °F	Net System Efficiency % (HHV)	
100%	59°F	5052	366.0	24.7	1901	159.5	62.3	0.46
	95°F	4660	307.8	22.5	2086	157.5	67.3	0.46
75%	59°F	3914	268.5	23.4	1502	163.8	61.8	0.46
	95°F	4227	268.5	21.7	1909	159.4	66.8	0.46
25%	59°F	1808	73.5	13.9	764	171.8	56.1	0.46
	95°F	2083	73.5	12.0	1031	168.9	61.6	0.46

¹ All performance data based on fuel energy content of 1000 Btu/CF HHV

Performance – Cooling Mode

Ambient DB/WB	Fuel in MBtu/h (HHV)	Net Prime Mover kW	Prime Mover Exhaust to Chiller			Chiller			Chiller Cooling Tower Water		
			MBtu/h	To Chiller°F	From Chiller°F	Capacity ² tons	Coefficient of Performance	Parasitic kW	gpm	Supply °F	Return °F
95/78°F	4660	307.8	1489	619	364	146	1.35	3	740	85	94

² Using heat from the prime mover. 45 °F chilled water output.

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*	25	49	14.5	71,500
Core system based on minimum width*	14	92	14.5	
PM Heat Rejection subsystem*	N/A	N/A	N/A	N/A
Chiller Cooling Tower*	11.5	18.5	11	4,000
Largest part for delivery	8.17	11.5	9.5	15,433
Heaviest part for delivery	8.17	11.5	9.5	15,433

*Includes maintenance clearances.

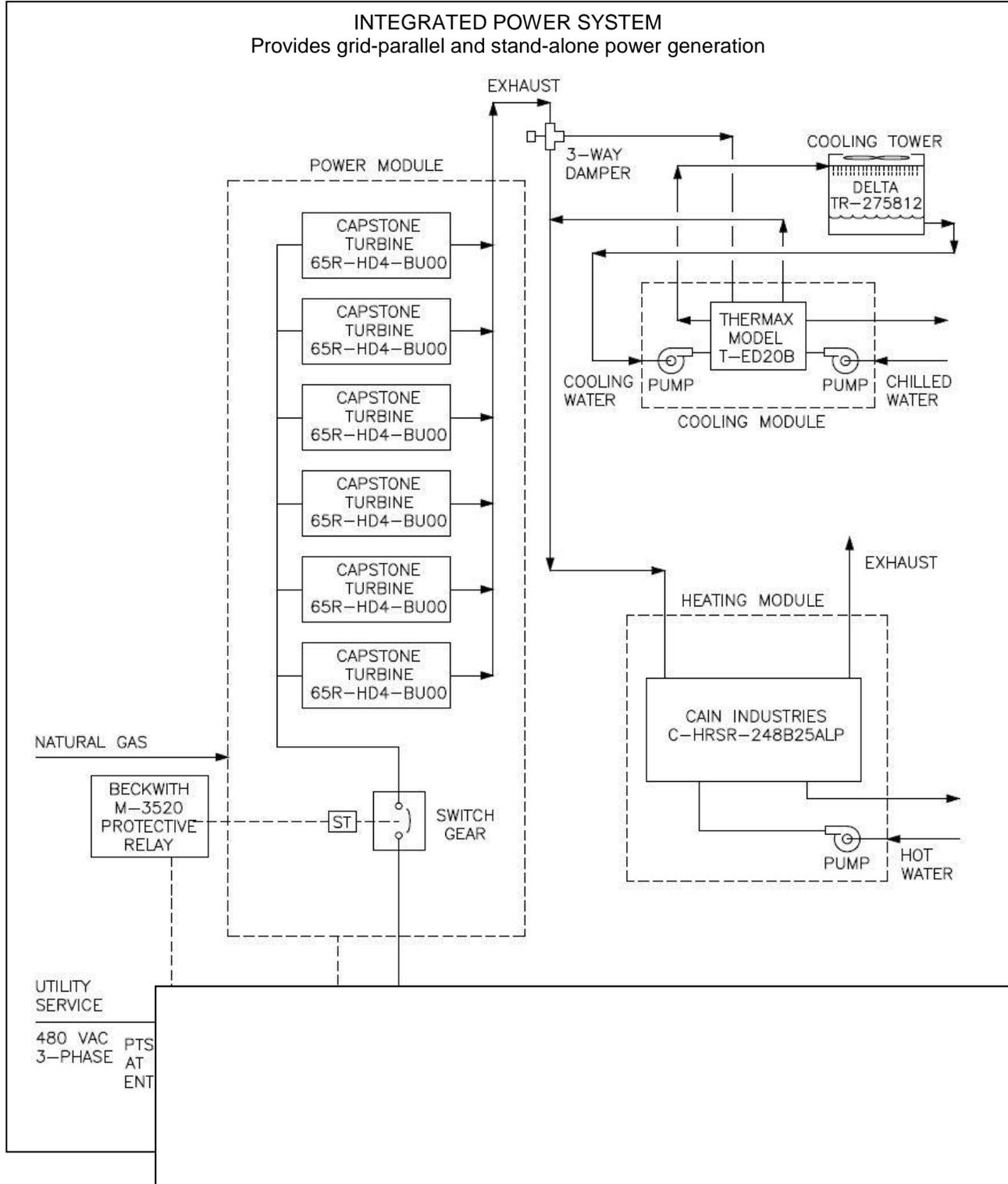
Vendor Information

GEM Energy 950 Danby Rd Suite 212 Ithaca, NY 14850 (866) 720-2700 Lauren.Ray@rlgbuils.com gemenergycapstone.com

Vendor Statement

GEM Energy provides comprehensive energy technology integration services with a focus on advanced power generation, heating and cooling systems for commercial, industrial, institutional, and mission critical facilities. Our systems utilize Capstone MicroTurbines as the prime mover to offer high reliability, ultra-low emissions, and a low total cost of ownership. These systems can be packaged in a space conscious pre-engineered container or building integrated format.







GEM Energy

IPS-390-CHP

390 kW

Description

Type of prime mover	Number of prime mover units	Synchronous or Inverter	Type	Black-Start Capable	Qualification Status
Microturbine	6	Inverter	CHP-HW	Yes	Pre-qualified

Performance

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	Hot Water to Building @ 180°F			NOx lbs/MWh
					MBtu/h	Return °F	Net System Efficiency % (HHV)	
100%	59°F	5052	366.0	24.7	1901	159.5	62.3	0.46
	95°F	4660	307.8	22.5	2086	157.5	67.3	0.46
75%	59°F	3914	268.5	23.4	1502	163.8	61.8	0.46
	95°F	4227	268.5	21.7	1909	159.4	66.8	0.46
25%	59°F	1808	73.5	13.9	764	171.8	56.1	0.46
	95°F	2083	73.5	12.0	1031	168.9	61.6	0.46

Notes: 1 – All performance data based on fuel energy content of 1000 Btu/CF HHV

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*	22	27.5	9.75	22,850
Core system based on minimum width*	7.5	76	9.75	
Heat Rejection subsystem*	N/A	N/A	N/A	N/A
Largest part for delivery	5.3	6.2	8.2	4,260
Heaviest part for delivery	5.3	6.2	8.2	4,260

*Includes maintenance clearances.

Vendor Information

<p>GEM Energy 950 Danby Rd Suite 212 Ithaca, NY 14850 (866) 720-2700 Lauren.Ray@rlgbuilds.com gemenergycapstone.com</p>

Vendor Statement

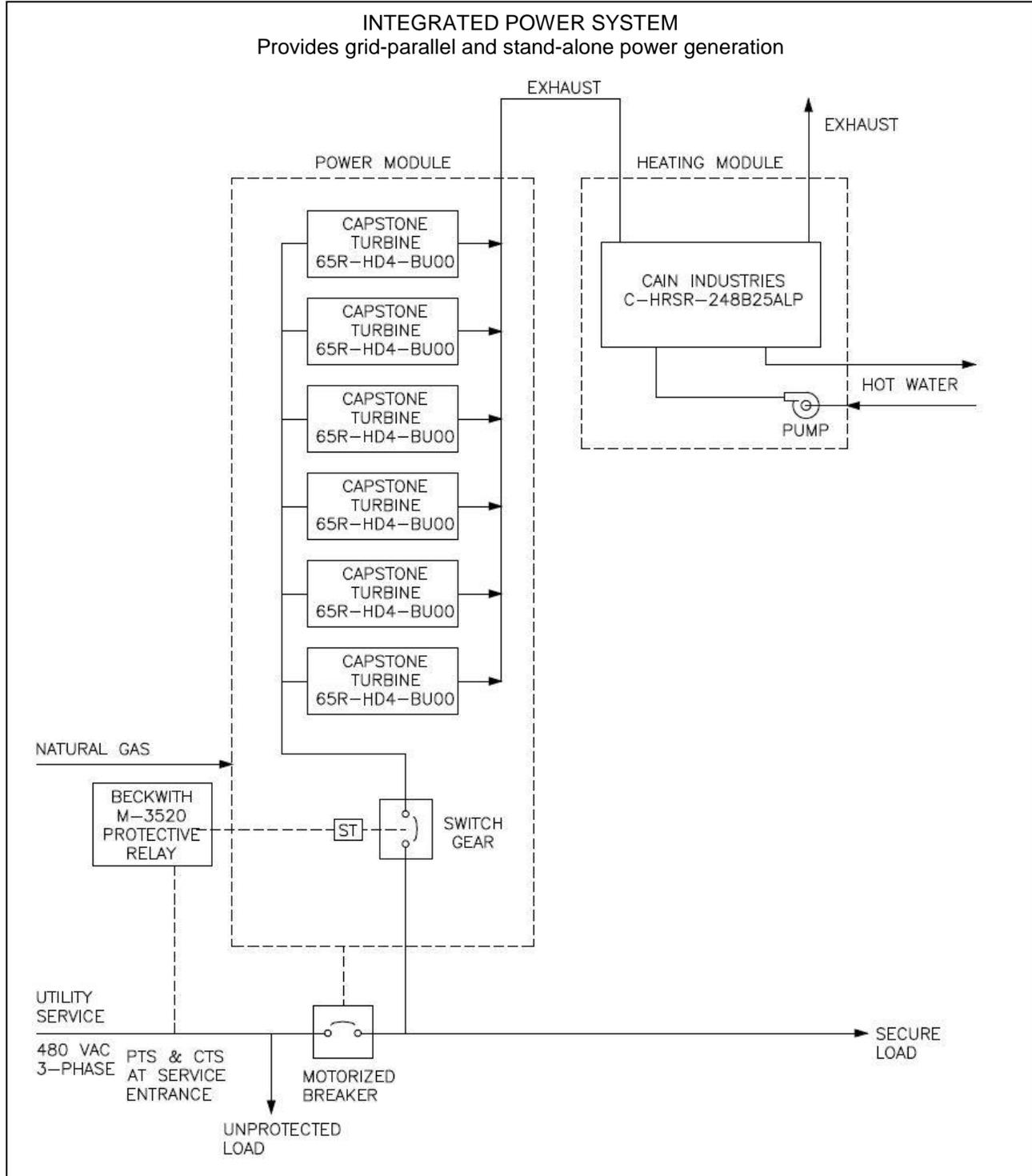
GEM Energy provides comprehensive energy technology integration services with a focus on advanced power generation, heating and cooling systems for commercial, industrial, institutional, and mission critical facilities. Our systems utilize Capstone MicroTurbines as the prime mover to offer high reliability, ultra-low emissions, and a low total cost of ownership. These systems can be packaged in a space conscious pre-engineered container or building integrated format.



GEM Energy

IPS-390-CHP

390 kW





GEM Energy

MCPS-390-CCHP

390 kW

Description

Type of prime mover	Number of prime mover units	Synchronous or Inverter	Type	Black-Start Capable	Qualification Status
Microturbine	6	Inverter	CCHP	Yes	Conditionally qualified

Performance - Heating Mode

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	Hot Water to Building @ 180°F			NOx lbs/MWh
					MBtu/h	Return °F	Net System Efficiency % (HHV)	
100%	59°F	5052	366.0	24.7	1901	159.5	62.3	0.46
	95°F	4660	307.8	22.5	2086	157.5	67.3	0.46
75%	59°F	3914	268.5	23.4	1502	163.8	61.8	0.46
	95°F	4227	268.5	21.7	1909	159.4	66.8	0.46
25%	59°F	1808	73.5	13.9	764	171.8	56.1	0.46
	95°F	2083	73.5	12.0	1031	168.9	61.6	0.46

¹ All performance data based on fuel energy content of 1000 Btu/CF HHV

Performance – Cooling Mode

Ambient DB/WB	Fuel in MBtu/h (HHV)	Net Prime Mover kW	Prime Mover Exhaust to Chiller			Chiller			Chiller Cooling Tower Water		
			MBtu/h	To Chiller°F	From Chiller°F	Capacity ² tons	Coefficient of Performance	Parasitic kW	gpm	Supply °F	Return °F
95/78°F	4660	307.8	1489	619	364	146	1.35	3	740	85	94

² Using heat from the prime mover. 45 °F chilled water output.

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*	25	59	14.5	80,500
Core system based on minimum width*	14	105	14.5	
PM Heat Rejection subsystem*	N/A	N/A	N/A	N/A
Chiller Cooling Tower*	11.5	18.5	11	4,000
Largest part for delivery	8.17	11.5	9.5	15,433
Heaviest part for delivery	8.17	11.5	9.5	15,433

*Includes maintenance clearances.

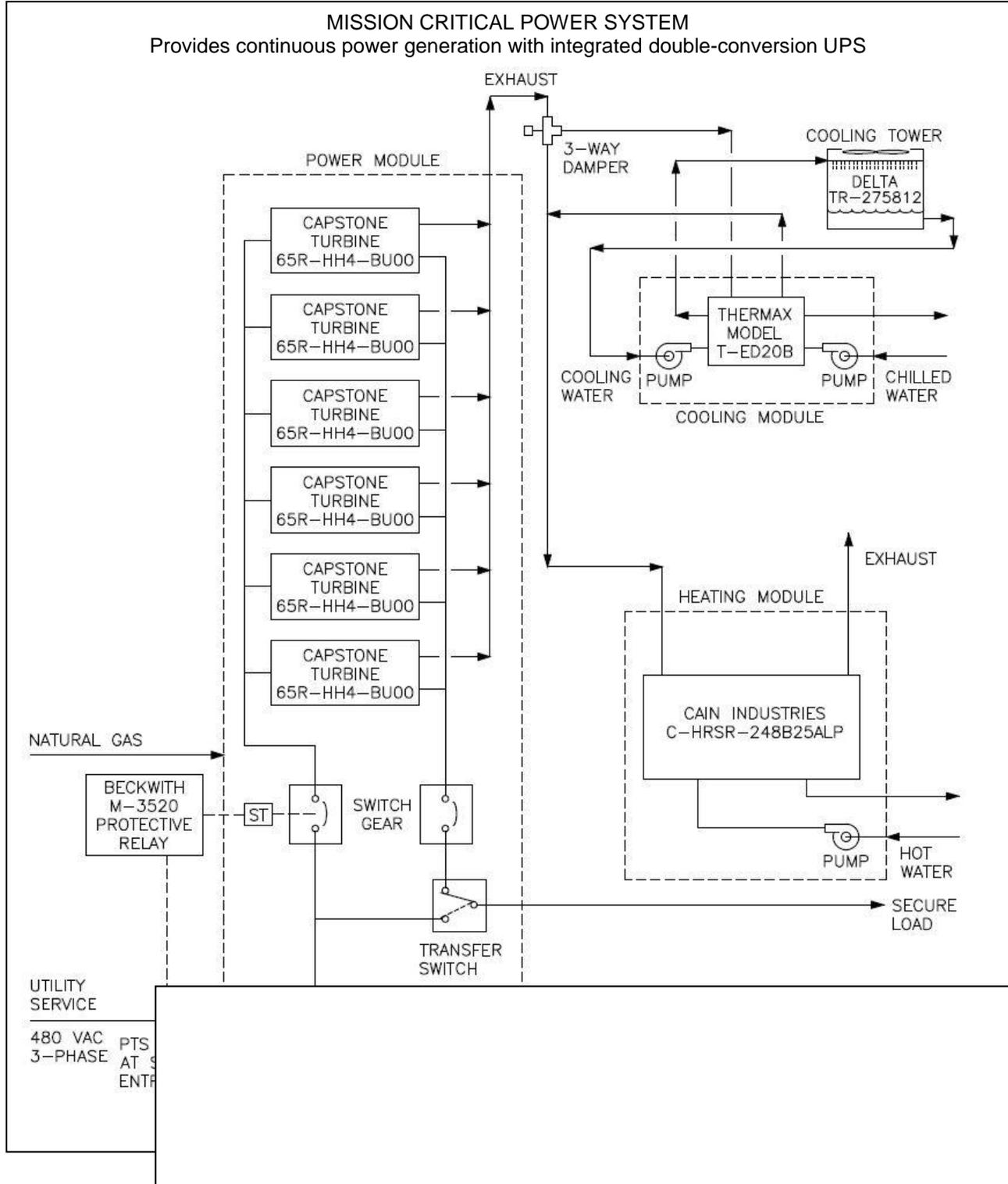
Vendor Information

GEM Energy 950 Danby Rd Suite 212 Ithaca, NY 14850 (866) 720-2700 Lauren.Ray@rlgbuilds.com gemenergycapstone.com
--

Vendor Statement

GEM Energy provides comprehensive energy technology integration services with a focus on advanced power generation, heating and cooling systems for commercial, industrial, institutional, and mission critical facilities. Our systems utilize Capstone MicroTurbines as the prime mover to offer high reliability, ultra-low emissions, and a low total cost of ownership. These systems can be packaged in a space conscious pre-engineered container or building integrated format.







GEM Energy

MCPS-390-CHP

390 kW

Description

Type of prime mover	Number of prime mover units	Synchronous or Inverter	Type	Black-Start Capable	Qualification Status
Microturbine	6	Inverter	CHP-HW	Yes	Pre-qualified

Performance

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	Hot Water to Building @ 180°F			NOx lbs/MWh
					MBtu/h	Return °F	Net System Efficiency % (HHV)	
100%	59°F	5052	366.0	24.7	1901	159.5	62.3	0.46
	95°F	4660	307.8	22.5	2086	157.5	67.3	0.46
75%	59°F	3914	268.5	23.4	1502	163.8	61.8	0.46
	95°F	4227	268.5	21.7	1909	159.4	66.8	0.46
25%	59°F	1808	73.5	13.9	764	171.8	56.1	0.46
	95°F	2083	73.5	12.0	1031	168.9	61.6	0.46

Notes: 1 – All performance data based on fuel energy content of 1000 Btu/CF HHV

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*	22.5	59	14.5	59,500
Core system based on minimum width*	14	68	14.5	
Heat Rejection subsystem*	N/A	N/A	N/A	N/A
Largest part for delivery	5.33	6.17	8.17	4,260
Heaviest part for delivery	5.33	6.17	8.17	4,260

*Includes maintenance clearances.

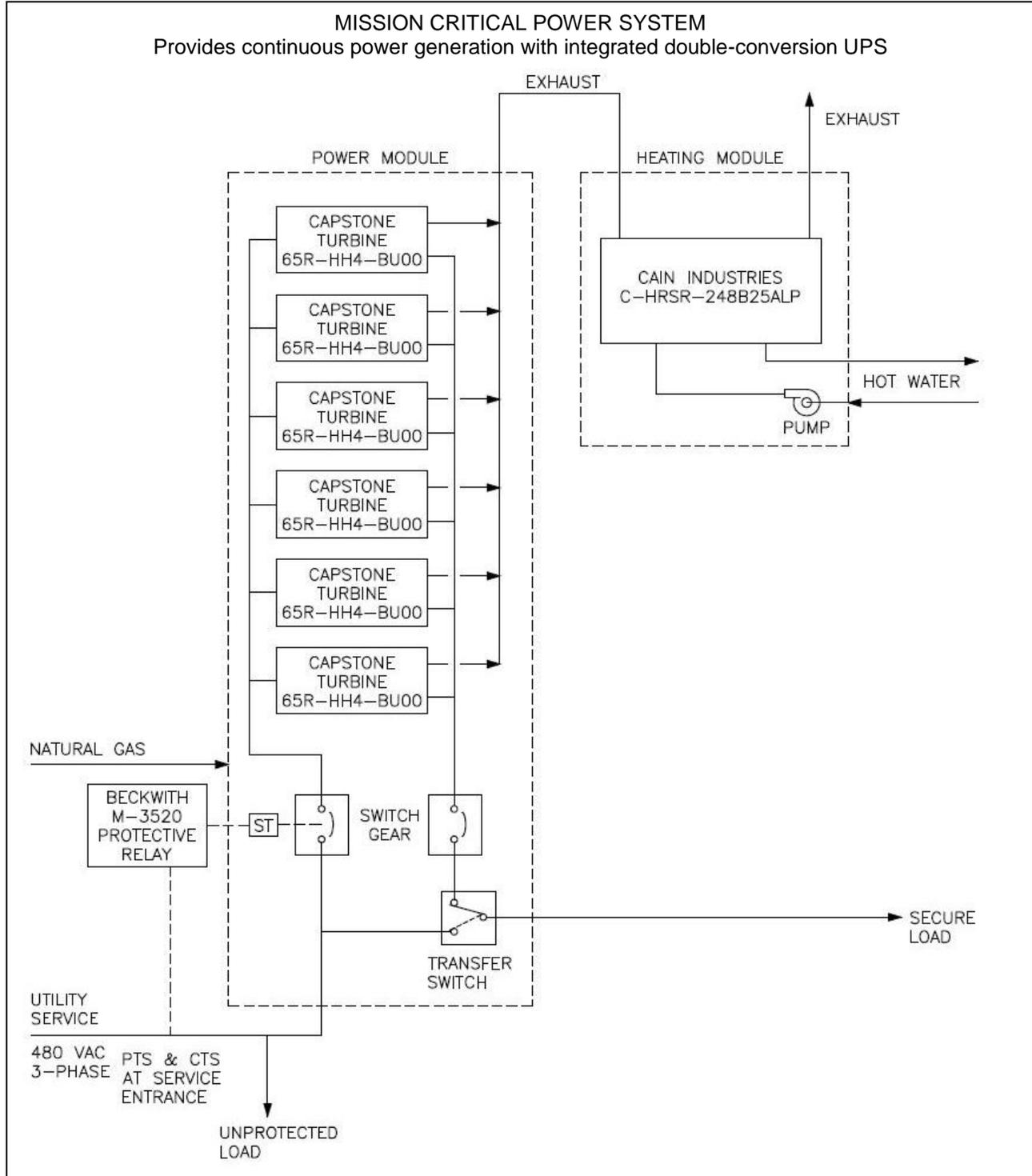
Vendor Information

GEM Energy 950 Danby Rd Suite 212 Ithaca, NY 14850 (866) 720-2700 Lauren.Ray@rlgbuilds.com gemenergycapstone.com
--

Vendor Statement

GEM Energy provides comprehensive energy technology integration services with a focus on advanced power generation, heating and cooling systems for commercial, industrial, institutional, and mission critical facilities. Our systems utilize Capstone MicroTurbines as the prime mover to offer high reliability, ultra-low emissions, and a low total cost of ownership. These systems can be packaged in a space conscious pre-engineered container or building integrated format.







GEM Energy

IPS-600-CHP

600 kW

Description

Type of prime mover	Number of prime mover units	Synchronous or Inverter	Type	Black-Start Capable	Qualification Status
Microturbine	3	Inverter	CHP-HW	Yes	Conditionally Qualified

Performance

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	Hot Water to Building @ 180°F			NOx lbs/MWh
					MBtu/h	Return °F	Net System Efficiency % (HHV)	
100%	59°F	6840	570	28.4	2402	158.6	63.6	0.4
	95°F	6421	504	26.8	2615	156.7	67.5	0.4
75%	59°F	5162	420	27.8	1684	165.0	60.4	0.4
	95°F	5451	420	26.3	1930	162.8	61.7	0.4
25%	59°F	1983	130	22.4	629	174.4	54.1	0.4
	95°F	2413	130	18.4	763	173.2	50.0	0.4

Notes: 1 – All performance data based on fuel energy content of 1000 Btu/CF HHV

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*	20	39.5	13	39,190
Core system based on minimum width*	20	39.5	13	
Heat Rejection subsystem*	N/A	N/A	N/A	N/A
Largest part for delivery	8	30	9.5	34,600
Heaviest part for delivery	8	30	9.5	34,600

*Includes maintenance clearances.

Vendor Information

GEM Energy 950 Danby Rd Suite 212 Ithaca, NY 14850 (866) 720-2700 Lauren.Ray@rlgbuilds.com gemenergycapstone.com
--

Vendor Statement

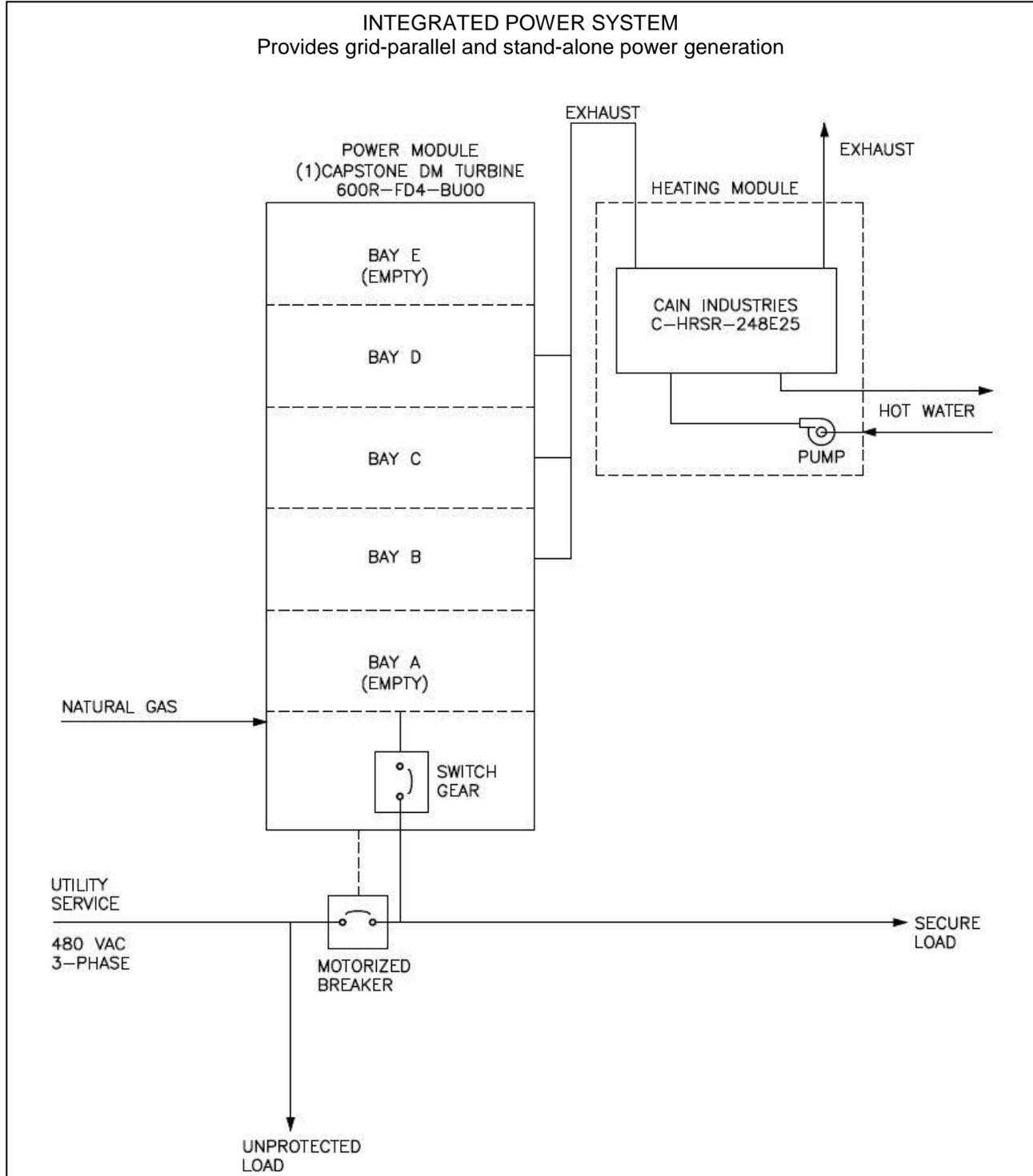
GEM Energy provides comprehensive energy technology integration services with a focus on advanced power generation, heating and cooling systems for commercial, industrial, institutional, and mission critical facilities. Our systems utilize Capstone MicroTurbines as the prime mover to offer high reliability, ultra-low emissions, and a low total cost of ownership. These systems can be packaged in a space conscious pre-engineered container or building integrated format.



GEM Energy

IPS-600-CHP

600 kW





GEM Energy

IPS-600-CHPg-M

600 kW

Description

Type of prime mover	Number of prime mover units	Synchronous or Inverter	Type	Black-Start Capable	Qualification Status
Microturbine	3	Inverter	CHP-HW	Yes	Conditionally Qualified

Performance

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	30/70 Glycol/Hot Water to Building @ 180°F			NOx lbs/MWh
					MBtu/h	Return °F	Net System Efficiency % (HHV)	
100%	59°F	6840	570	28.4	2553	158.5	65.8	0.4
	95°F	6421	504	26.8	2755	156.8	69.7	0.4
75%	59°F	5162	420	27.8	1781	165.0	62.3	0.4
	95°F	5451	420	26.3	2019	163.0	63.6	0.4
25%	59°F	1983	130	22.4	666	174.4	56.0	0.4
	95°F	2413	130	18.4	831	173.0	52.8	0.4

Notes: 1 – All performance data based on fuel energy content of 1000 Btu/CF HHV

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*	20	39.5	14.7	39,410
Core system based on minimum width*	20	39.5	14.7	
Heat Rejection subsystem*	N/A	N/A	N/A	N/A
Largest part for delivery	8	30	9.5	34,600
Heaviest part for delivery	8	30	9.5	34,600

*Includes maintenance clearances.

Vendor Information

<p>GEM Energy 950 Danby Rd Suite 212 Ithaca, NY 14850 (866) 720-2700 Lauren.Ray@rlgbuilds.com gemenergycapstone.com</p>

Vendor Statement

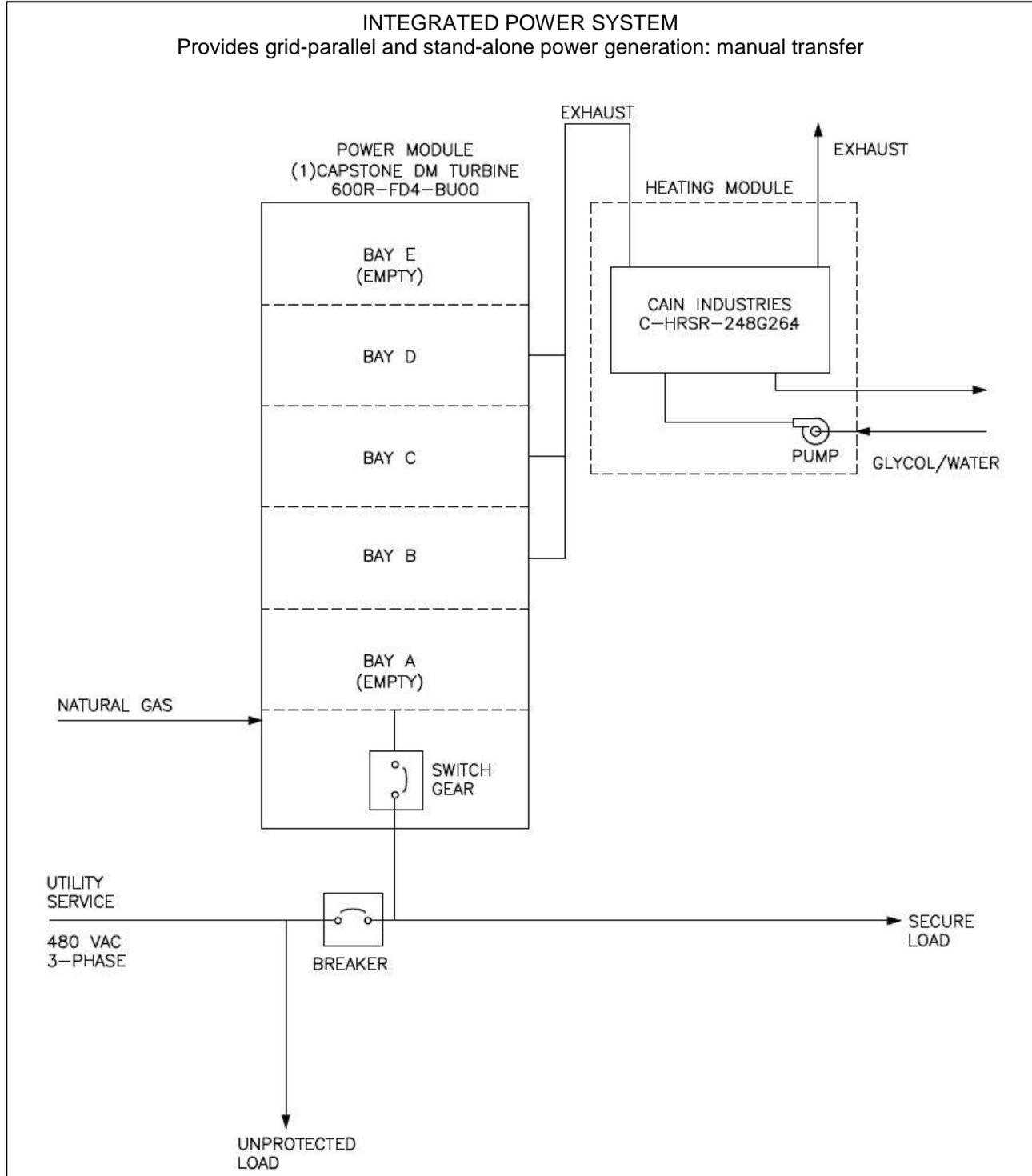
GEM Energy provides comprehensive energy technology integration services with a focus on advanced power generation, heating and cooling systems for commercial, industrial, institutional, and mission critical facilities. Our systems utilize Capstone MicroTurbines as the prime mover to offer high reliability, ultra-low emissions, and a low total cost of ownership. These systems can be packaged in a space conscious pre-engineered container or building integrated format.



GEM Energy

IPS-600-CHPg-M

600 kW





GEM Energy

IPS-1000-CCHP

1000 kW

Description

Type of prime mover	Number of prime mover units	Synchronous or Inverter	Type	Black-Start Capable	Qualification Status
Microturbine	5	Inverter	CCHP	Yes	Conditionally qualified

Performance - Heating Mode

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	Hot Water to Building @ 180°F			NOx lbs/MWh
					MBtu/h	Return °F	Net System Efficiency % (HHV)	
100%	59°F	11400	950	28.4	3806	160.5	61.8	0.4
	95°F	10701	839.5	26.8	4158	158.7	65.6	0.4
75%	59°F	8604	700	27.8	2791	165.7	60.2	0.4
	95°F	9084	700	26.3	3221	163.5	61.8	0.4
25%	59°F	2923	230	26.9	1015	174.8	61.6	0.4
	95°F	3146	230	25.0	1191	173.9	62.8	0.4

¹ All performance data based on fuel energy content of 1000 Btu/CF HHV

Performance – Cooling Mode

Ambient DB/WB	Fuel in MBtu/h (HHV)	Net Prime Mover kW	Prime Mover Exhaust to Chiller			Chiller			Chiller Cooling Tower Water		
			MBtu/h	To Chiller°F	From Chiller°F	Capacity ² tons	Coefficient of Performance	Parasitic kW	gpm	Supply °F	Return °F
95/78°F	10701	839.5	3082	577.3	349	287	1.2	4	1290	85	95

² Using heat from the prime mover. 45 °F chilled water output.

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*	20	59	14.5	100,000
Core system based on minimum width*	20	92	14.5	
PM Heat Rejection subsystem*	N/A	N/A	N/A	N/A
Chiller Cooling Tower*	19.5	20	15.5	10,000
Largest part for delivery	8	30	9.5	46,520
Heaviest part for delivery	8	30	9.5	46,520

*Includes maintenance clearances.

Vendor Information

GEM Energy 950 Danby Rd Suite 212 Ithaca, NY 14850 (866) 720-2700 Lauren.Ray@rlgbuilds.com gemenergycapstone.com
--

Vendor Statement

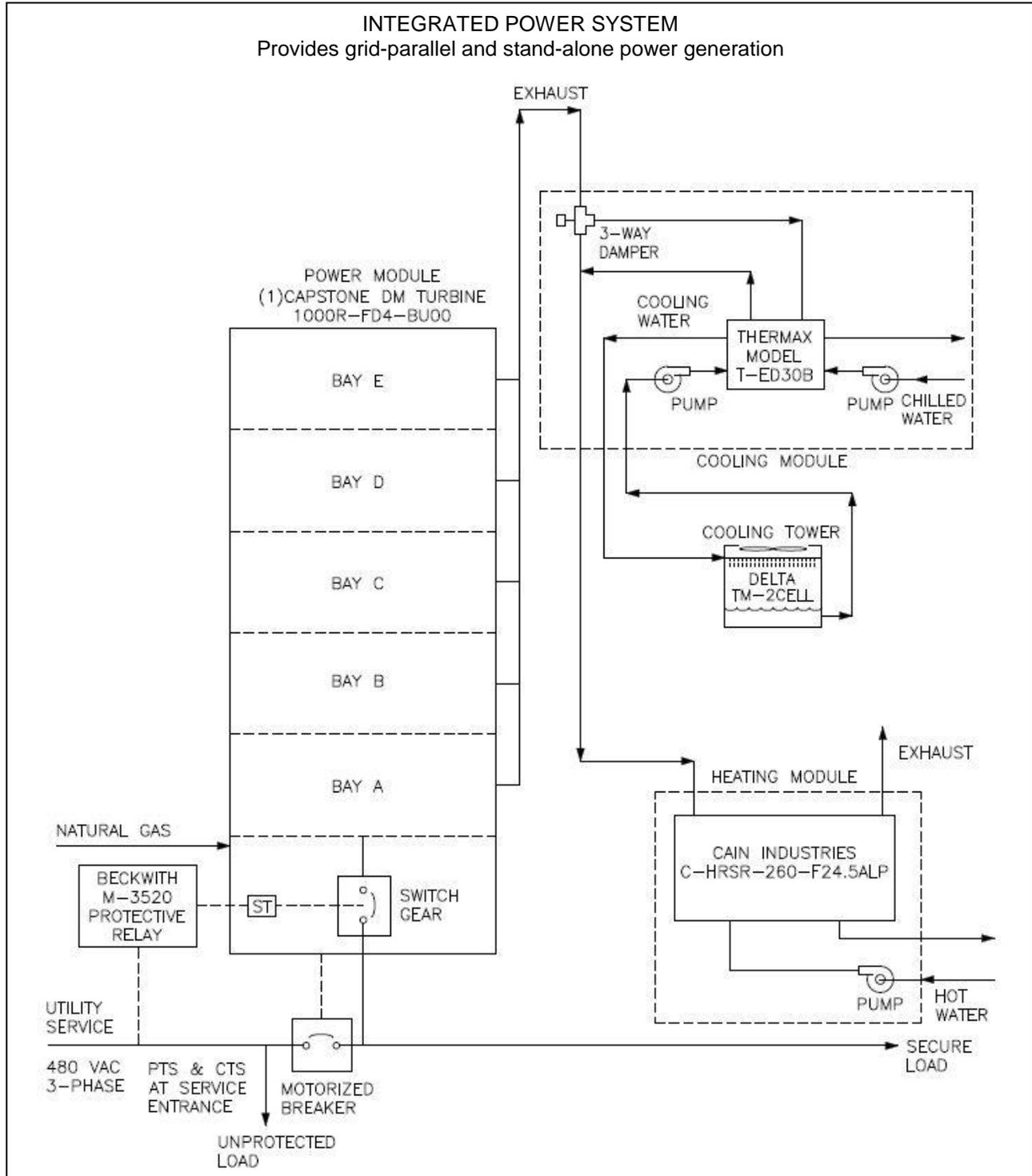
GEM Energy provides comprehensive energy technology integration services with a focus on advanced power generation, heating and cooling systems for commercial, industrial, institutional, and mission critical facilities. Our systems utilize Capstone MicroTurbines as the prime mover to offer high reliability, ultra-low emissions, and a low total cost of ownership. These systems can be packaged in a space conscious pre-engineered container or building integrated format.



GEM Energy

IPS-1000-CCHP

1000 kW





GEM Energy

IPS-1000-CHP

1,000 kW

Description

Type of prime mover	Number of prime mover units	Synchronous or Inverter	Type	Black-Start Capable	Qualification Status
Microturbine	5	Inverter	CHP-HW	Yes	Conditionally qualified

Performance

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	Hot Water to Building @ 180°F			NOx lbs/MWh
					MBtu/h	Return °F	Net System Efficiency % (HHV)	
100%	59°F	11400	950	28.4	3806	160.5	61.8	0.4
	95°F	10701	839.5	26.8	4158	158.7	65.6	0.4
75%	59°F	8604	700	27.8	2791	165.7	60.2	0.4
	95°F	9084	700	26.3	3221	163.5	61.8	0.4
25%	59°F	2923	230	26.9	1015	174.8	61.6	0.4
	95°F	3146	230	25.0	1191	173.9	62.8	0.4

Notes: 1 – All performance data based on fuel energy content of 1000 Btu/CF HHV

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*	27	35	13	54,500
Core system based on minimum width*	20	46	13	
Heat Rejection subsystem*	N/A	N/A	N/A	N/A
Largest part for delivery	8	30	9.5	46,520
Heaviest part for delivery	8	30	9.5	46,520

*Includes maintenance clearances.

Vendor Information

GEM Energy 950 Danby Rd Suite 212 Ithaca, NY 14850 (866) 720-2700 Lauren.Ray@rlgbuilds.com gemenergycapstone.com
--

Vendor Statement

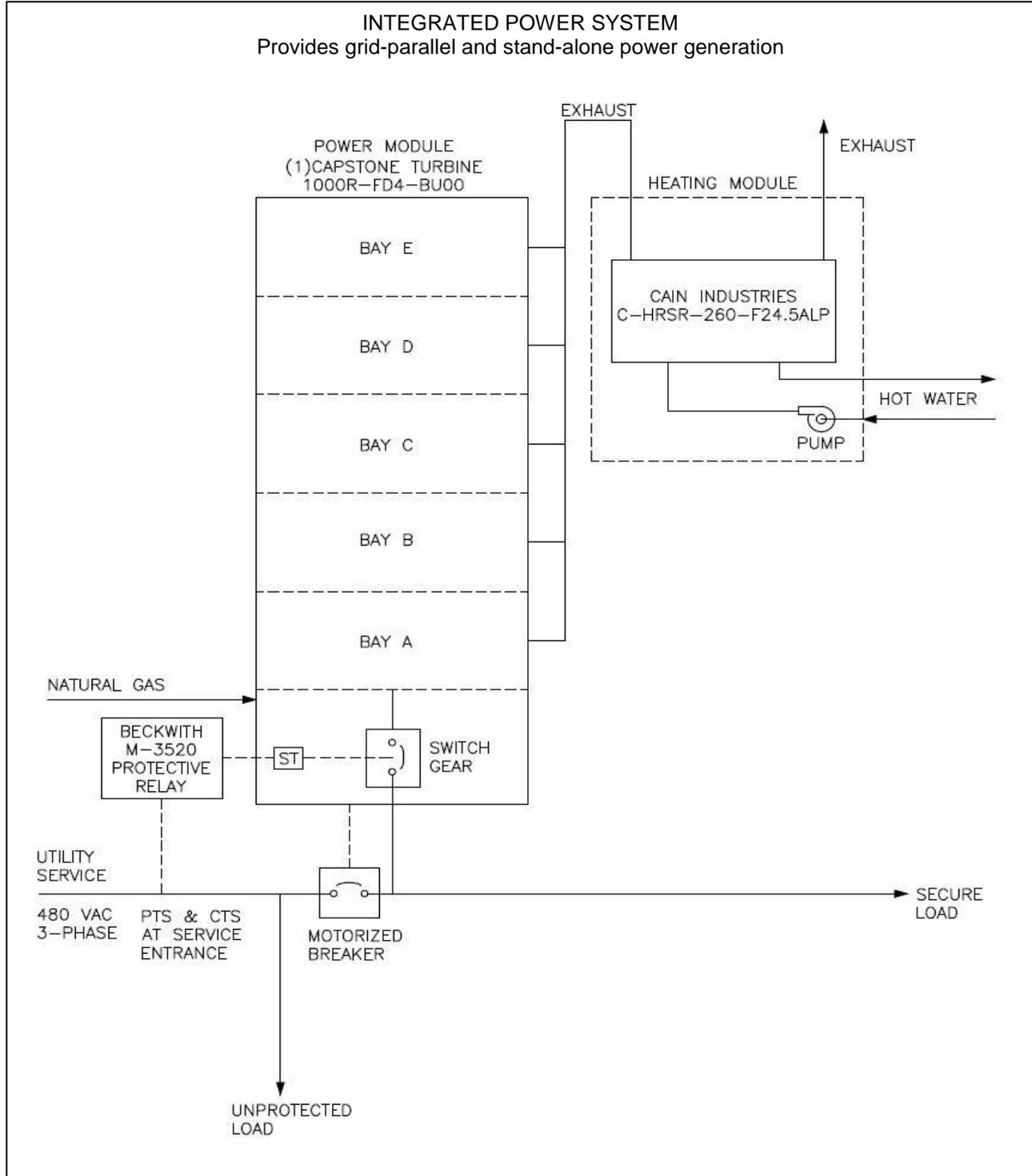
GEM Energy provides comprehensive energy technology integration services with a focus on advanced power generation, heating and cooling systems for commercial, industrial, institutional, and mission critical facilities. Our systems utilize Capstone MicroTurbines as the prime mover to offer high reliability, ultra-low emissions, and a low total cost of ownership. These systems can be packaged in a space conscious pre-engineered container or building integrated format.



GEM Energy

IPS-1000-CHP

1,000 kW



Intelligen Power Systems – Intelligen 160 Inverter

Page under development

Intelligen Power Systems – Intelligen 160 Synchronous

Page under development

Intelligen Power Systems – Intelligen 265 Inverter CCHP

Page under development

Intelligen Power Systems – Intelligen 265 Inverter

Page under development

Intelligen Power Systems – Intelligen 265 Synchronous

Page under development

Intelligen Power Systems – Intelligen 320 Inverter

Page under development

Intelligen Power Systems – Intelligen 530 Inverter

Page under development



Kraft Power Corporation

KMGR-55-4SH

55kW

Description

Type of prime mover	Number of prime mover units	Synchronous or Inverter	Type	Black-Start Capable	Qualification Status
RICE	1	Synchronous	CHP-HW	Yes	Conditionally qualified

Performance

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	Hot Water to Building @ 180°F			NOx lbs/MWh
					MBtu/h	Return °F	Net System Efficiency % (HHV)	
100%	59°F	618	51.5	28	300	160	77	1.5
	95°F	618	51.5	28	300	160	77	1.5
75%	59°F	495	37.75	26	245	160	76	1.5
	95°F	495	37.75	26	245	160	76	1.5
50%	59°F	383	24	21	198	160	73	1.5
	95°F	383	24	21	198	160	73	1.5

1 – All performance data based on fuel energy content of 1025 Btu/CF HHV

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*	12	22	11	7,500
Core system based on minimum width*	12	22	11	
Heat Rejection subsystem*	9	9	6	2,400
Largest part for delivery	6	13	8	7,000
Heaviest part for delivery	5	5	5	3,000

*Includes maintenance clearances.

Vendor Information

Kraft Power Corporation
 601 Cambridge Avenue
 Syracuse, NY 13208
 (315) 455-6200
 fscalise@kraftpower.com
 www.kraftpower.com & www.kraftenergysystems.com

Vendor Statement

> **Kraft Energy Systems** CHP modules which are designed and built with long-term success and durability in mind. We only use the highest quality industrial grade components, carefully selected to result in a highly efficient system that provides our clients with maximum uptime and reliability, along with industry leading performance.

> **Kraft Power** has specialized in servicing CHP systems in the northeast for over 50 years. We offer long-term service agreements for our CHP systems, using our Kraft Power service teams located in New York, New Jersey, Massachusetts, and Ohio.

> Our unique commitment to CHP service is backed by extensive inventories of service parts, technical staff, and component repair capabilities. We build long term service-ability into all our products.

> **Kraft Energy System modules** can be custom designed and manufactured to meet your specific needs. Our support services help ensure your power needs are met efficiently and reliably for many years.

Kraft Power Corporation

- Temperature
- Pressure
- Flow
- Combustible Gas
- Level
- Variable Frequency/Drive
- Oxygen Sensor
- Smoke Detector

KMGR-55-4SH

55kW

MANUFACTURERS AND THEIR MODELS ARE SUBJECT TO CHANGE.

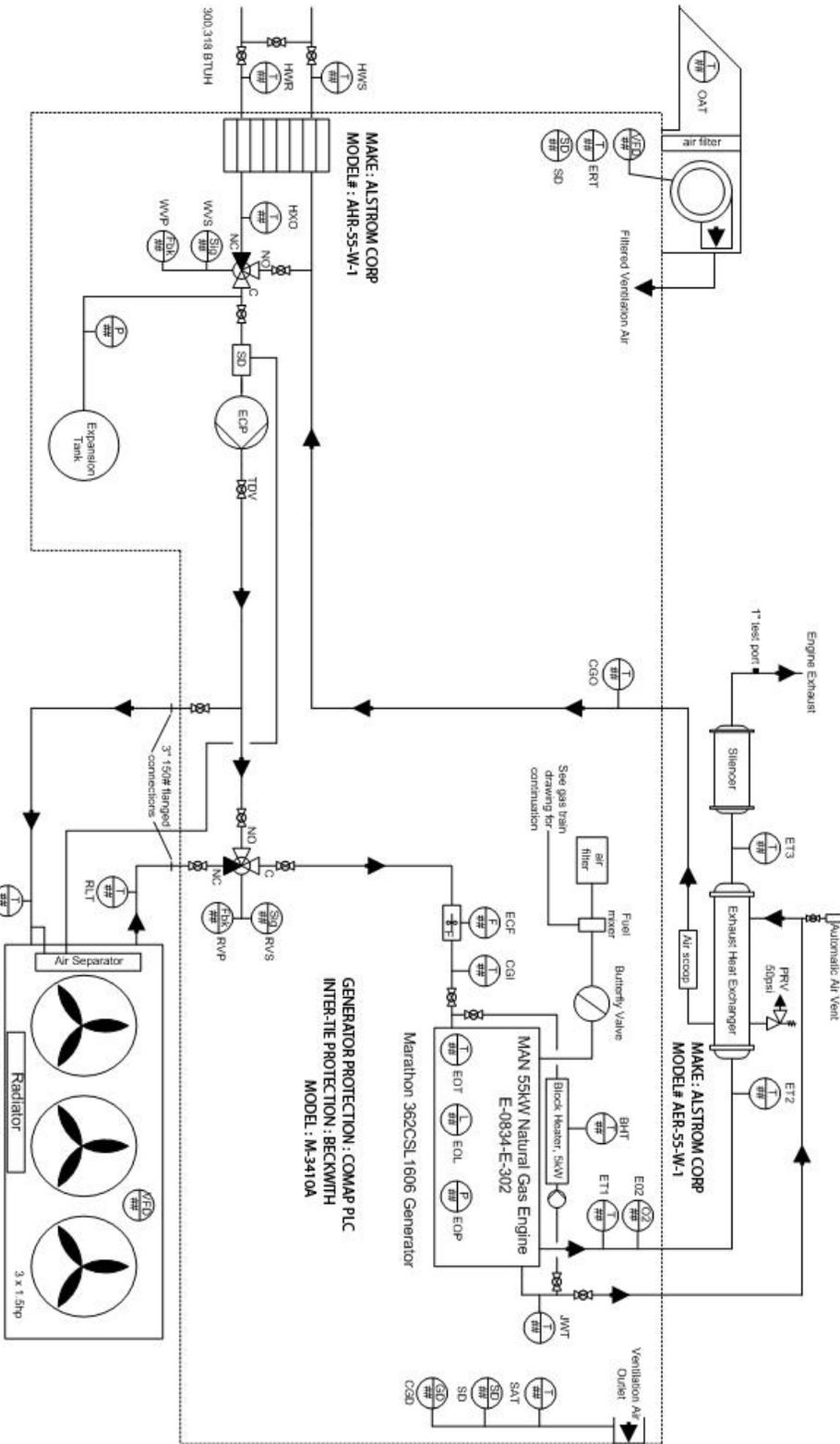
This document is the exclusive property of Kraft Energy Systems, and the information contained herein is confidential, proprietary information. Neither the document nor its information may be disclosed, copied, scanned, stored or used in whole or in part without the prior written consent of Kraft Energy Systems.



55kW CHP System	
Kraft Energy Systems 37-C North Grand Blvd Bronwood, NY 11717 phone 631-650-4228 fax 631-386-2466 e-mail sbelone@kraftpower.com	
300 Number/Number	
NYSERDA Submittal	
REV 0 07 DEC 2012	

Manufacturer: Guntner
Model # S-MFH 082A/1-M(L)-F6/6P

Generator Protection: COMAP PLC
Inter-Tie Protection: BECNWTH
Model: M-3410A



Kraft Power Corporation
KMGR-80-4SH
80kW
Description

Type of prime mover	Number of prime mover units	Synchronous or Inverter	Type	Black-Start Capable	Qualification Status
RICE	1	Synchronous	CHP-HW	Yes	Conditionally qualified

Performance

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	Hot Water to Building @ 180°F			NOx lbs/MWh
					MBtu/h	Return °F	Net System Efficiency % (HHV)	
100%	59°F	881	76.5	29.6	425	160	78	1.5
	95°F	881	76.5	29.6	425	160	78	1.5
75%	59°F	710	56.5	27	340	160	75	1.5
	95°F	710	56.5	27	340	160	75	1.5
50%	59°F	545	36.5	22	263	160	71	1.5
	95°F	545	36.5	22	263	160	71	1.5

1 – All performance data based on fuel energy content of 1025 Btu/CF HHV

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*	12	22	11	8,500
Core system based on minimum width*	12	22	11	
Heat Rejection subsystem*	9	9	6	2,400
Largest part for delivery	6	13	8	7,500
Heaviest part for delivery	5	5	5	3,500

*Includes maintenance clearances.

Vendor Information

Kraft Power Corporation
601 Cambridge Avenue
Syracuse, NY 13208
(315) 455-6200
fscalise@kraftpower.com
www.kraftpower.com & www.kraftenergysystems.com

Vendor Statement

- > **Kraft Energy Systems** CHP modules which are designed and built with long-term success and durability in mind. We only use the highest quality industrial grade components, carefully selected to result in a highly efficient system that provides our clients with maximum uptime and reliability, along with industry leading performance.
- > **Kraft Power** has specialized in servicing CHP systems in the northeast for over 50 years. We offer long-term service agreements for our CHP systems, using our Kraft Power service teams located in New York, New Jersey, Massachusetts, and Ohio.
- > Our unique commitment to CHP service is backed by extensive inventories of service parts, technical staff, and component repair capabilities. We build long term service-ability into all our products.
- > **Kraft Energy System modules** can be custom designed and manufactured to meet your specific needs. Our support services help ensure your power needs are met efficiently and reliably for many years.

Kraft Power Corporation

- Temperature
- Pressure
- Flow
- Combustible Gas
- Level
- Variable Frequency Drive
- Oxygen Sensor
- Smoke Detector

MANUFACTURERS AND THEIR MODELS ARE SUBJECT TO CHANGE.

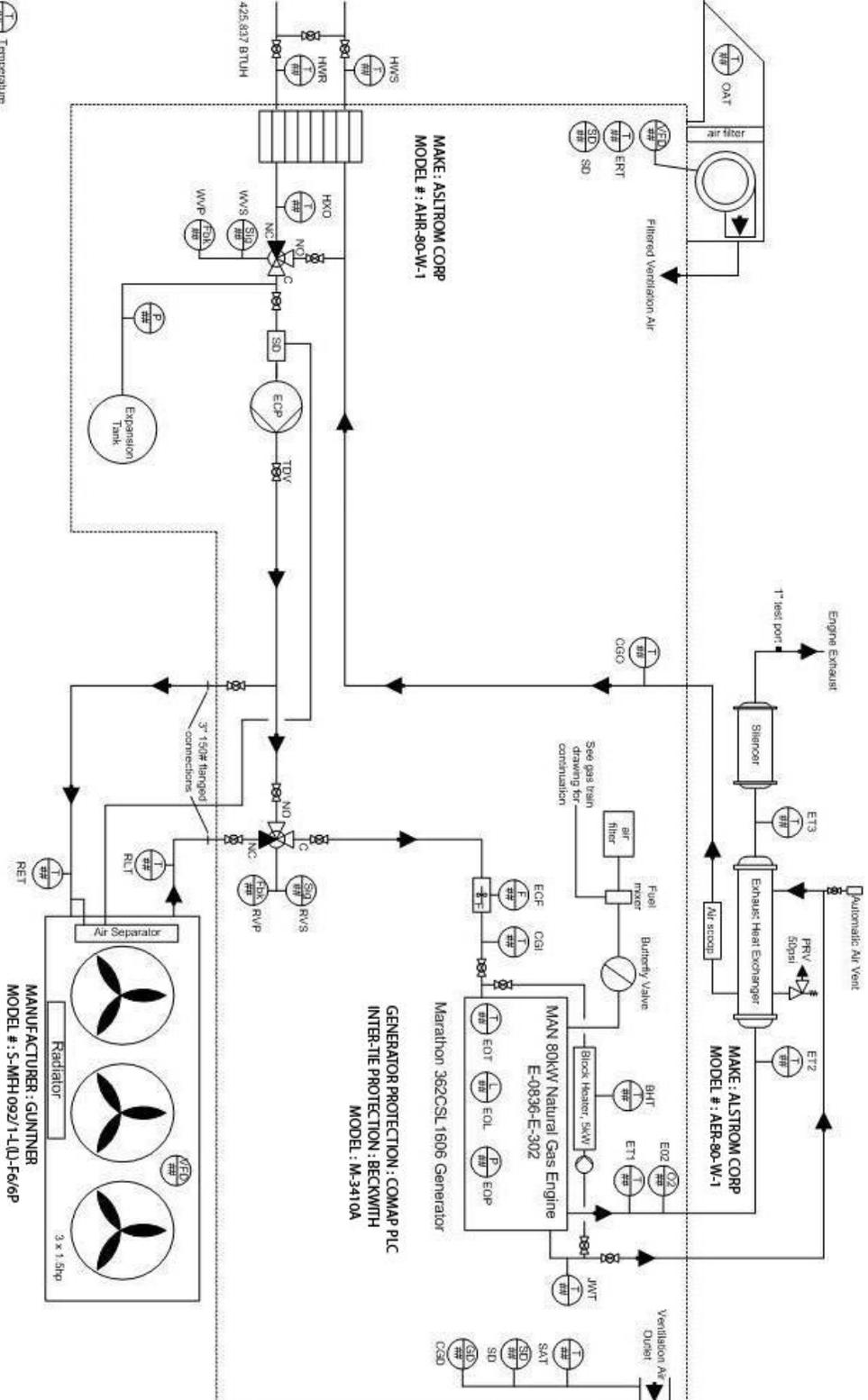
This document is the exclusive property of Kraft Energy Systems, and the information contained herein is confidential, proprietary information. Neither the document nor its information may be disclosed, copied, scanned, stored or used in whole or in part without the prior written consent of Kraft Energy Systems.



80kW CHP System	
Kraft Energy Systems 37-C North Grand Blvd Bronwood, NY 11717 phone 631-650-4228 fax 631-398-2466 e-mail: sbelton@kraftpower.com	
300 Name/Number	
REV 0 07 DEC 2012	NYSERDA Submittal

KMGR-80-4SH

80kW





Kraft Power Corporation

KMGR-150-4SH

150kW

Description

Type of prime mover	Number of prime mover units	Synchronous or Inverter	Type	Black-Start Capable	Qualification Status
RICE	1	Synchronous	CHP-HW	Yes	Conditionally qualified

Performance

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	Hot Water to Building @ 180°F			NOx lbs/MWh
					MBtu/h	Return °F	Net System Efficiency % (HHV)	
100%	59°F	1,590	145	31	784	160	80	1.5
	95°F	1,590	145	31	784	160	80	1.5
75%	59°F	1,238	107.5	29.6	635	160	80	1.5
	95°F	1,238	107.5	29.6	635	160	80	1.5
50%	59°F	953	70	25	506	160	78	1.5
	95°F	953	70	25	506	160	78	1.5

1 – All performance data based on fuel energy content of 1025 Btu/CF HHV

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*	25	25	12	25,000
Core system based on minimum width*	25			
Heat Rejection subsystem*	17	15	6	2,400
Largest part for delivery	6	15	9	15,000
Heaviest part for delivery	5	5	5	3,500

*Includes maintenance clearances.

Vendor Information

Kraft Power Corporation 601 Cambridge Avenue Syracuse, NY 13208 (315) 455-6200 fscalise@kraftpower.com www.kraftpower.com & www.kraftenergysystems

Vendor Statement

<ul style="list-style-type: none"> > Kraft Energy Systems CHP modules which are designed and built with long-term success and durability in mind. We only use the highest quality industrial grade components, carefully selected to result in a highly efficient system that provides our clients with maximum uptime and reliability, along with industry leading performance. > Kraft Power has specialized in servicing CHP systems in the northeast for over 50 years. We offer long-term service agreements for our CHP systems, using our Kraft Power service teams located in New York, New Jersey, Massachusetts, and Ohio. > Our unique commitment to CHP service is backed by extensive inventories of service parts, technical staff, and component repair capabilities. We build long term service-ability into all our products. > Kraft Energy System modules can be custom designed and manufactured to meet your specific needs. Our support services help ensure your power needs are met efficiently and reliably for many years.



Kraft Power Corporation

KMGR-250-4SH

250kW

Description

Type of prime mover	Number of prime mover units	Synchronous or Inverter	Type	Black-Start Capable	Qualification Status
RICE	1	Synchronous	CHP-HW	Yes	Conditionally qualified

Performance

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	Hot Water to Building @ 180°F			NOx lbs/MWh
					MBtu/h	Return °F	Net System Efficiency % (HHV)	
100%	59°F	2,696	245	32	1,339	160	80	1.5
	95°F	2,696	245	32	1,339	160	80	1.5
75%	59°F	2,101	182.5	29	1,049	160	79	1.5
	95°F	2,101	182.5	29	1,049	160	79	1.5
50%	59°F	1,609	120	26	833	160	77	1.5
	95°F	1,609	120	26	833	160	77	1.5

1 – All performance data based on fuel energy content of 1025 Btu/CF HHV

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*	25	25	12	25,000
Core system based on minimum width*	25			
Heat Rejection subsystem*	17	15	6	2,400
Largest part for delivery	6	15	9	15,000
Heaviest part for delivery	5	5	5	3,500

*Includes maintenance clearances.

Vendor Information

Kraft Power Corporation 601 Cambridge Avenue Syracuse, NY 13208 (315) 455-6200 fscalise@kraftpower.com www.kraftpower.com & www.kraftenergysystems.com

Vendor Statement

<ul style="list-style-type: none"> > Kraft Energy Systems CHP modules which are designed and built with long-term success and durability in mind. We only use the highest quality industrial grade components, carefully selected to result in a highly efficient system that provides our clients with maximum uptime and reliability, along with industry leading performance. > Kraft Power has specialized in servicing CHP systems in the northeast for over 50 years. We offer long-term service agreements for our CHP systems, using our Kraft Power service teams located in New York, New Jersey, Massachusetts, and Ohio. > Our unique commitment to CHP service is backed by extensive inventories of service parts, technical staff, and component repair capabilities. We build long term service-ability into all our products. > Kraft Energy System modules can be custom designed and manufactured to meet your specific needs. Our support services help ensure your power needs are met efficiently and reliably for many years.

Kraft Power Corporation

- Temperature
- Pressure
- Flow
- Combustible Gas
- Level
- Variable Frequency Drive
- Oxygen Sensor
- Smoke Detector

MANUFACTURERS AND THEIR MODELS ARE SUBJECT TO CHANGE.

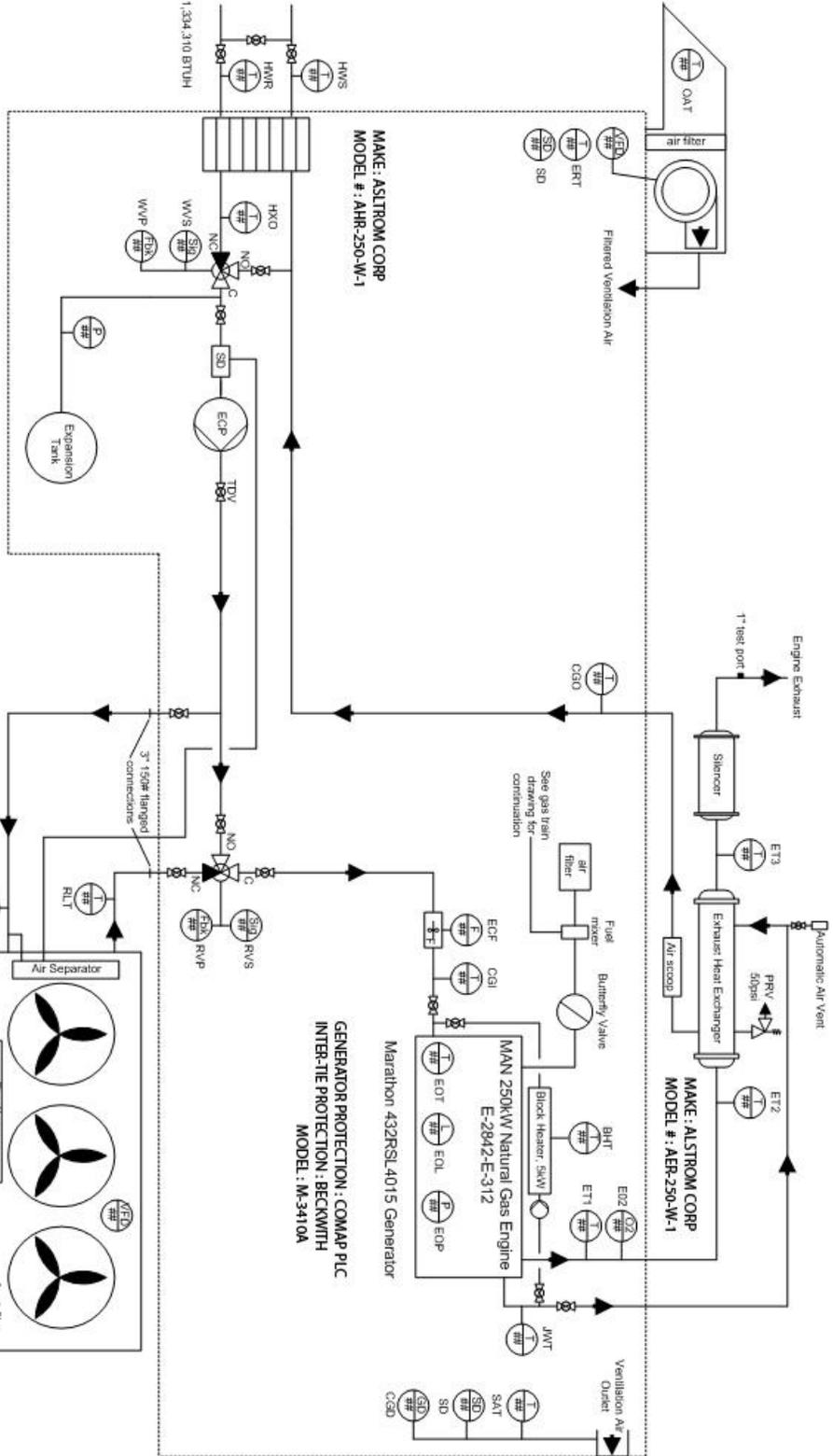
This document is the exclusive property of Kraft Energy Systems, and the information contained herein is confidential, proprietary information. Neither the document nor its information may be disclosed, copied, scanned, stored or used in whole or in part without the prior written consent of Kraft Energy Systems.



250kW CHP System	
Kraft Energy Systems 37-C North Grand Blvd Bronxwood, NY 11717 phone 631-650-0228 fax 631-586-2466 e-mail sbelone@kainpower.com	
300 Name/Number	
NYSERDA Submittal	
REV 0 07 DEC 2012	

KMGR-250-4SH

250kW



Kraft Power Corporation
KMGR-360-4SH
360 KW
Description

Type of prime mover	Number of prime mover units	Synchronous or Inverter	Type	Black-Start Capable	Qualification Status
RICE	1	Synchronous	CHP-HW	Yes	Conditionally qualified

Performance

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	Hot Water to Building @ 180°F			NOx lbs/MWh
					MBtu/h	Return °F	Net System Efficiency % (HHV)	
100%	59°F	4,316	352	28	2,132	160	77	.30
	95°F	4,316	352	28	2,132	160	77	.30
75%	59°F	3,445	261	26	1,773	160	77	.30
	95°F	3,445	261	26	1,773	160	77	.30
50%	59°F	2,586	170	22	1,395	160	76	.30
	95°F	2,586	170	22	1,395	160	76	.30

Notes: 1 – All performance data based on fuel energy content of 1,025 Btu/CF HHV

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*	12	24	11	18,000
Core system based on minimum width*	12			
Heat Rejection subsystem*	10	19	6	3,026
Largest part for delivery	6	18	9	18,000
Heaviest part for delivery				18,000

*Includes maintenance clearances.

Vendor Information

Kraft Power Corporation
 601 Cambridge Avenue
 Syracuse, NY 13208
 (315) 455-6200
 fscalise@kraftpower.com
 www.kraftenergysystems.com & www.kraftpower.com

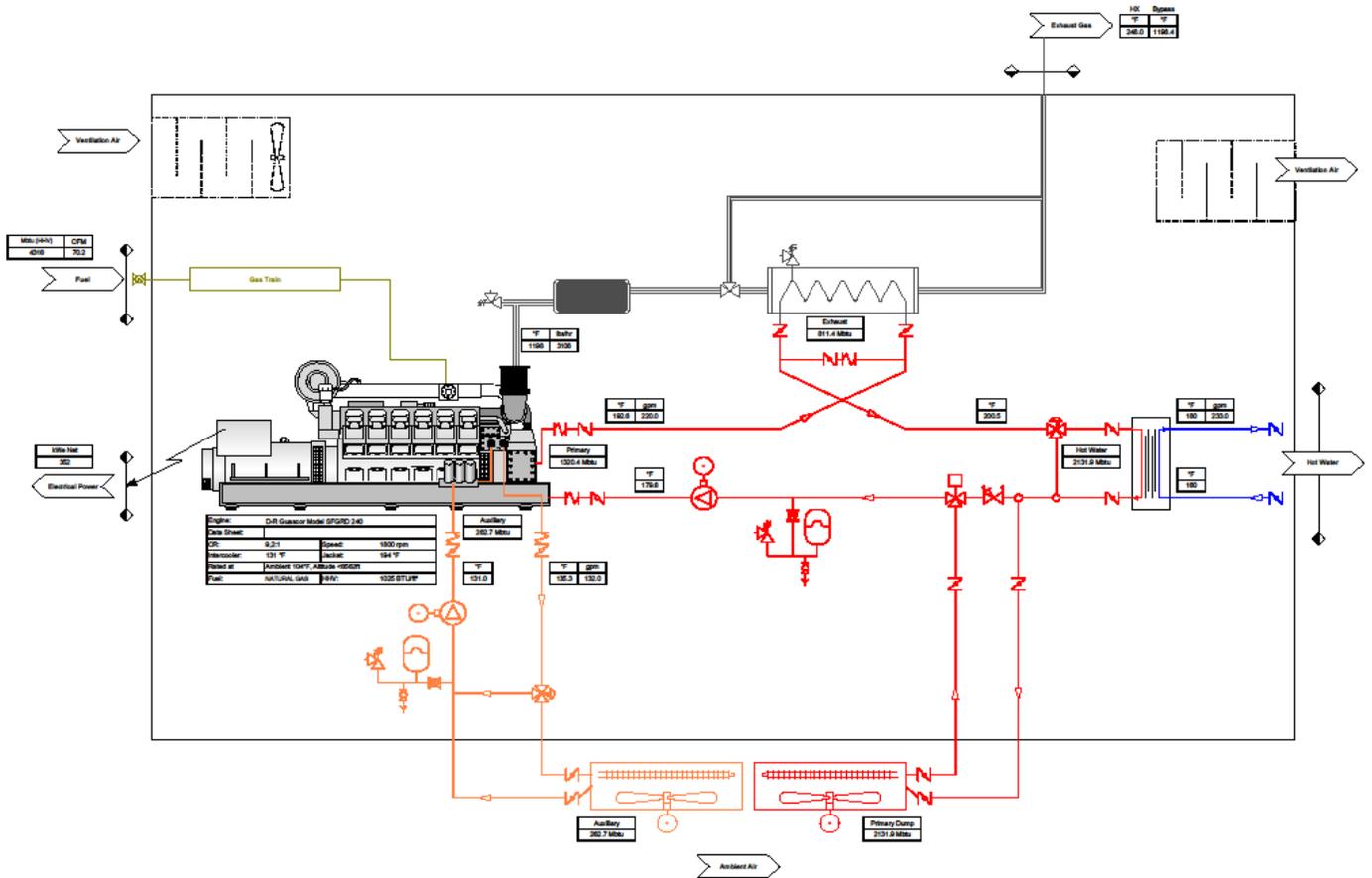
Vendor Statement

- > Kraft Energy Systems CHP Modules are designed and built with long-term success and durability in mind. We use only the highest quality industrial grade components, carefully selected to result in a highly efficient system that provides our clients with maximum uptime and reliability, along with industry leading performance.
- > Kraft Power has specialized in servicing CHP systems in the Northeast for over 50 years. We offer long-term service agreements for Kraft Energy CHP units utilizing Kraft Power service technicians located in New York, New Jersey, Massachusetts, and Ohio.
- > Our unique commitment to CHP service is backed by extensive inventories of service parts, technical staff, and component repair capabilities. We build long-term serviceability into all of our products.
- > Kraft Energy Systems can be custom designed and manufactured to meet your specific needs. Our support services help ensure your power needs are met efficiently and reliably for many years.

Kraft Power Corporation

KMGR-360-4SH

360 KW





Kraft Power Corporation

KMGR-360-4SH-CCHP

360 kW

Description

Type of prime mover	Number of prime mover units	Synchronous or Inverter	Type	Black-Start Capable	Qualification Status
RICE	1	Synchronous	CCHP	Yes	Conditionally qualified

Performance - Heating Mode

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	Hot Water to Building @ 180°F			NOx lbs/MWh
					MBtu/h	Return °F	Net System Efficiency % (HHV)	
100%	59°F	4,316	352	28	2,132	160	77	.30
	95°F	4,316	352	28	2,132	160	77	.30
75%	59°F	3,445	261	26	1,773	160	77	.30
	95°F	3,445	261	26	1,773	160	77	.30
50%	59°F	2,586	170	22	1,395	160	76	.30
	95°F	2,586	170	22	1,395	160	76	.30

¹ All performance data based on fuel energy content of 1,025 Btu/CF HHV

Performance – Cooling Mode

Ambient DB/WB	Fuel in MBtu/h (HHV)	Net Prime Mover kW	PM Hot Water to Chiller			Chiller			Chiller Cooling Tower Water		
			MBtu/h	Supply °F	Return °F	Capacity ² tons	Coefficient of Performance	Parasitic kW	gpm	Supply °F	Return °F
95/78°F	4,316	352	2132	180	160	135	0.76	2.55	655	85	96.5

² Using heat from the prime mover. 45 °F chilled water output.

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*	12	24	11	18,000
Core system based on minimum width*	12			
PM Heat Rejection subsystem*	10	19	6	3,026
Chiller Cooling Tower*	14	24	12	7,893
Largest part for delivery	6	18	9	18,000
Heaviest part for delivery				18,000

*Includes maintenance clearances.

Vendor Information

<p>Kraft Power Corporation 601 Cambridge Avenue Syracuse, NY 13208</p> <p>(315) 455-6200 fscalise@kraftpower.com www.kraftenergysystems.com & www.kraftpower.com</p>
--

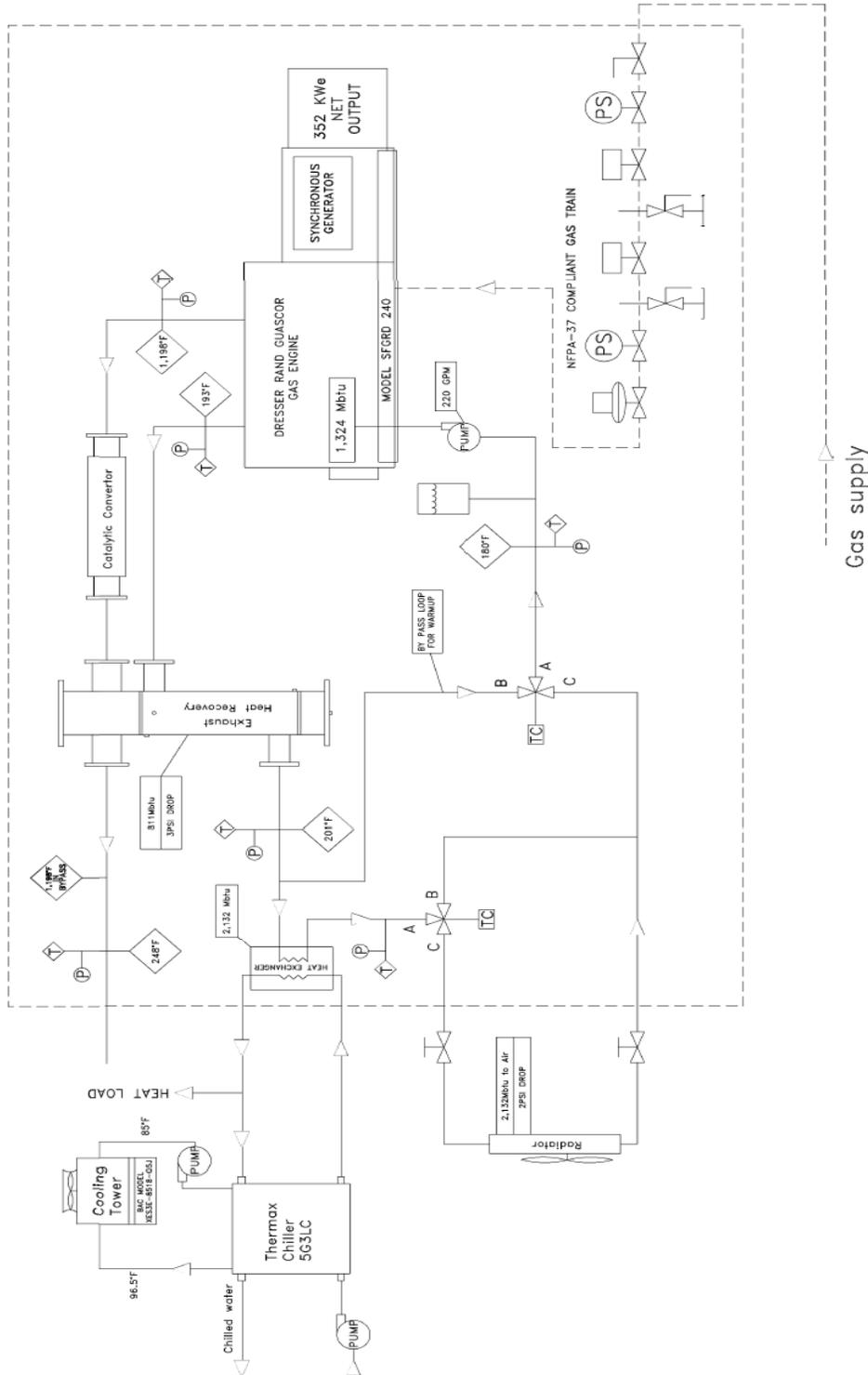
Vendor Statement

<p>> Kraft Energy Systems CHP Modules are designed and built with long-term success and durability in mind. We use only the highest quality industrial grade components, carefully selected to result in a highly efficient system that provides our clients with maximum uptime and reliability, along with industry leading performance.</p> <p>> Kraft Power has specialized in servicing CHP systems in the Northeast for over 50 years. We offer long-term service agreements for Kraft Energy CHP's utilizing Kraft Power service technicians located in New York, New Jersey, Massachusetts, and Ohio.</p> <p>> Our unique commitment to CHP service is backed by extensive inventories of service parts, technical staff, and component repair capabilities. We build long-term serviceability into all of our products.</p> <p>> Kraft Energy Systems can be custom designed and manufactured to meet your specific needs. Our support services help ensure your power needs are met efficiently and reliably for many years.</p>
--

Kraft Power Corporation

KMGR-360-4SH-CCHP

360 kW





Kraft Power Corporation

KMGR-500-4SH-CCHP

500 kW

Description

Type of prime mover	Number of prime mover units	Synchronous or Inverter	Type	Black-Start Capable	Qualification Status
RICE	2	Synchronous or Inverter	CCHP	Yes	Conditionally qualified

Performance - Heating Mode

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	Hot Water to Building @ 180°F			NOx lbs/MWh
					MBtu/h	Return °F	Net System Efficiency % (HHV)	
100%	59°F	5,392	480	30	2,679	165	80	1.5
	95°F	5,392	480	30	2,679	165	80	1.5
75%	59°F	4,202	360	29	2,098	165	79	1.5
	95°F	4,202	360	29	2,098	165	79	1.5
50%	59°F	3,218	240	25	1,667	165	77	1.5
	95°F	3,218	240	25	1,667	165	77	1.5

¹ All performance data based on fuel energy content of 1,025 Btu/CF HHV

Performance – Cooling Mode

Ambient DB/WB	Fuel in MBtu/h (HHV)	Net Prime Mover kW	Prime Mover Hot Water Supply to Chiller			Chiller			Chiller Cooling Tower Water		
			MBtu/h	Supply °F	Return °F	Capacity ² tons	Coefficient of Performance	Parasitic kW	gpm	Supply °F	Return °F
95/78°F	2,673	240	2.6	190	173	80	0.7	2.6	425	85	96

² Using heat from the prime mover. 45 °F chilled water output.

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*	25'	25'	12'	30,000
Core system based on minimum width*	25'			
PM Heat Rejection subsystem*	17'	15'	6'	2,400
Chiller Cooling Tower*	15'	18'	10'	9,100
Largest part for delivery	6'	15'	9'	15,000
Heaviest part for delivery	6'	15'	9'	15,000

*Includes maintenance clearances.

Vendor Information

Kraft Power Corporation
 601 Cambridge Avenue
 Syracuse, NY 13208
 (315) 455-6200
 fscalise@kraftpower.com
 www.kraftpower.com & www.kraftenergysystems.com

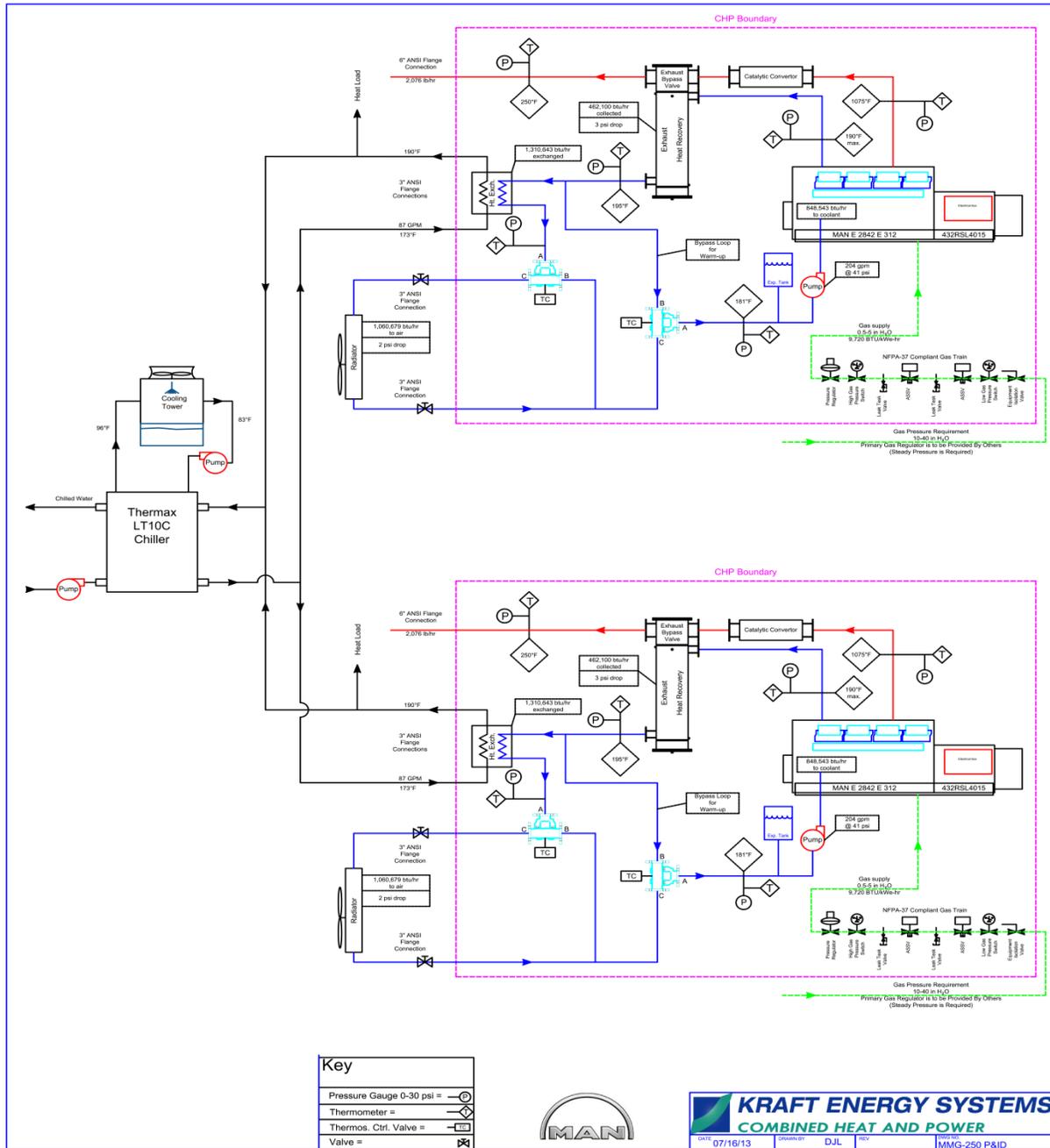
Vendor Statement

- > **Kraft Energy Systems** CHP Modules are designed and built with long-term success and durability in mind. We use only the highest quality industrial grade components, carefully selected to result in a highly efficient system that provides our clients with maximum uptime and reliability, along with industry leading performance.
- > **Kraft Power** has specialized in servicing CHP systems in the Northeast for over 50 years. We offer long-term service agreements for Kraft Energy CHP's using our Kraft Power service teams located in New York, New Jersey, Massachusetts, and Ohio.
- > Our unique commitment to CHP service is backed by extensive inventories of service parts, technical staff, and component repair capabilities. We build long-term serviceability into all of our products.
- > Kraft Energy Systems can be custom designed and manufactured to meet your specific needs. Our support services help ensure your power needs are met efficiently and reliably for many years

Kraft Power Corporation

KMGR-500-4SH-CCHP

500 kW



Kraft Power Corporation
KMGR-541-4SH
541 kW
Description

Type of prime mover	Number of prime mover units	Synchronous or Inverter	Type	Black-Start Capable	Qualification Status
RICE	1	Synchronous	CHP-HW	Yes	Conditionally qualified

Performance

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	Hot Water to Building @ 180°F			NOx lbs/MWh
					MBtu/h	Return °F	Net System Efficiency % (HHV)	
100%	59°F	6,280	532	29	3,159	160	79	.30
	95°F	6,280	532	29	3,159	160	79	.30
75%	59°F	5,005	396	27	2,567	160	78	.30
	95°F	5,005	396	27	2,567	160	78	.30
50%	59°F	3,740	259	24	2,003	160	77	.30
	95°F	3,740	259	24	2,003	160	77	.30

Notes: 1 – All performance data based on fuel energy content of 1,025 Btu/CF HHV

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*	18'	26'	14	21,000
Core system based on minimum width*	18'			
Heat Rejection subsystem*	10'	23'	6'	3,593
Largest part for delivery	12'	20'	11'	21,000
Heaviest part for delivery				21,000

*Includes maintenance clearances.

Vendor Information

 Kraft Power Corporation
 601 Cambridge Avenue
 Syracuse, NY 13208
 (315) 455-6200
 fscalise@kraftpower.com
 www.kraftenergysystems.com & www.kraftpower.com

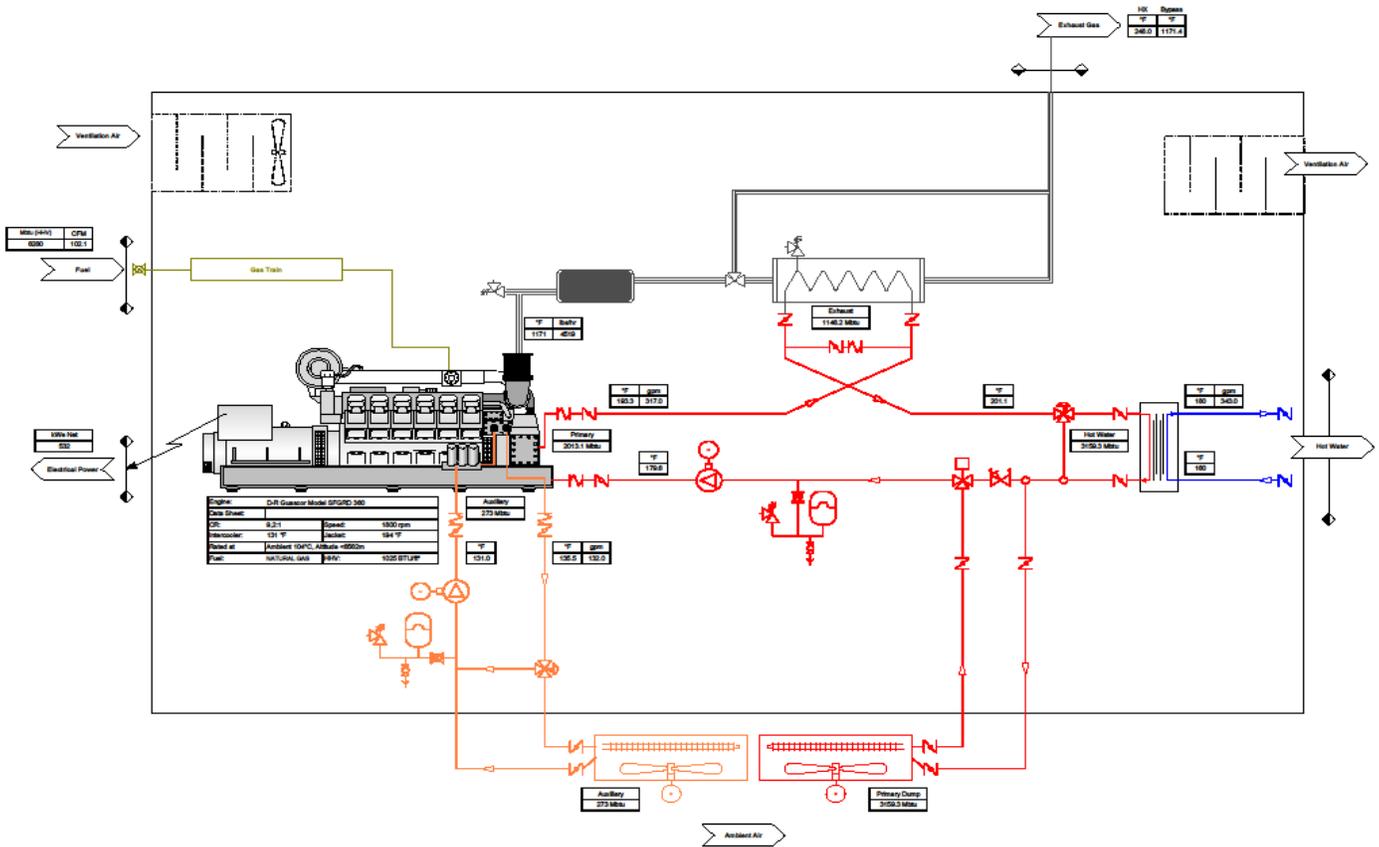
Vendor Statement

- > Kraft Energy Systems CHP Modules are designed and built with long-term success and durability in mind. We use only the highest quality industrial grade components, carefully selected to result in a highly efficient system that provides our clients with maximum uptime and reliability, along with industry leading performance.
- > Kraft Power has specialized in servicing CHP systems in the Northeast for over 50 years. We offer long-term service agreements for Kraft Energy CHP's utilizing Kraft Power service technicians located in New York, New Jersey, Massachusetts, and Ohio.
- > Our unique commitment to CHP service is backed by extensive inventories of service parts, technical staff, and component repair capabilities. We build long-term serviceability into all of our products.
- > Kraft Energy Systems can be custom designed and manufactured to meet your specific needs. Our support services help ensure your power needs are met efficiently and reliably for many years.

Kraft Power Corporation

KMGR-541-4SH

541 kW





Kraft Power Corporation

KMGR-541-4SH-CCHP

541 kW

Description

Type of prime mover	Number of prime mover units	Synchronous or Inverter	Type	Black-Start Capable	Qualification Status
RICE	1	Synchronous	CCHP	Yes	Conditionally qualified

Performance - Heating Mode

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	Hot Water to Building @ 180°F			NOx lbs/MWh
					MBtu/h	Return °F	Net System Efficiency % (HHV)	
100%	59°F	6,280	532	29	3,159	160	79	.30
	95°F	6,280	532	29	3,159	160	79	.30
75%	59°F	5,005	396	27	2,567	160	78	.30
	95°F	5,005	396	27	2,567	160	78	.30
50%	59°F	3,740	259	24	2,003	160	77	.30
	95°F	3,740	259	24	2,003	160	77	.30

¹ All performance data based on fuel energy content of 1,025 Btu/CF HHV

Performance – Cooling Mode

Ambient DB/WB	Fuel in MBtu/h (HHV)	Net Prime Mover kW	PM Hot Water to Chiller			Chiller			Chiller Cooling Tower Water		
			MBtu/h	Supply °F	Return °F	Capacity ² tons	Coefficient of Performance	Parasitic kW	gpm	Supply °F	Return °F
95/78°F		532	3,159	180	160	199	0.76	4.75	870	85	97.8

² Using heat from the prime mover. 45 °F chilled water output.

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*	18	26	14	21,000
Core system based on minimum width*	18			
PM Heat Rejection subsystem*	10	23	6	3,593
Chiller Cooling Tower*	14	24	12	8,083
Largest part for delivery	12	20	11	21,000
Heaviest part for delivery				21,000

*Includes maintenance clearances.

Vendor Information

<p>Kraft Power Corporation 601 Cambridge Avenue Syracuse, NY 13208</p> <p>(315) 455-6200 fscalise@kraftpower.com www.kraftenergysystems.com & www.kraftpower.com</p>
--

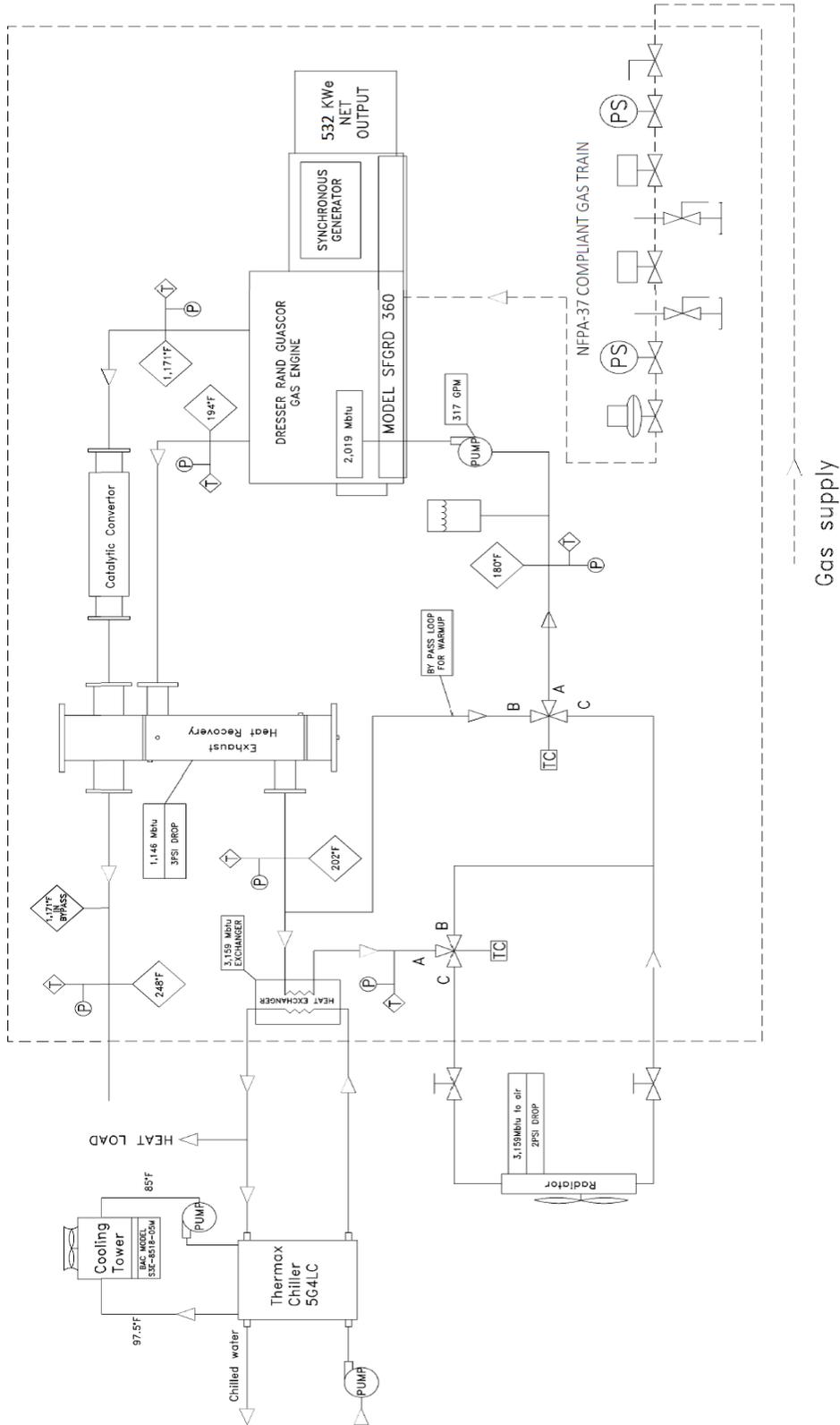
Vendor Statement

<p>> Kraft Energy Systems CHP Modules are designed and built with long-term success and durability in mind. We use only the highest quality industrial grade components, carefully selected to result in a highly efficient system that provides our clients with maximum uptime and reliability, along with industry leading performance.</p> <p>> Kraft Power has specialized in servicing CHP systems in the Northeast for over 50 years. We offer long-term service agreements for Kraft Energy CHP's utilizing Kraft Power service technicians located in New York, New Jersey, Massachusetts, and Ohio.</p> <p>> Our unique commitment to CHP service is backed by extensive inventories of service parts, technical staff, and component repair capabilities. We build long-term serviceability into all of our products.</p> <p>> Kraft Energy Systems can be custom designed and manufactured to meet your specific needs. Our support services help ensure your power needs are met efficiently and reliably for many years.</p>
--

Kraft Power Corporation

KMGR-541-4SH-CCHP

541 kW





LC Associates

2E2842E312/E4000

536 kW

Description

Type of prime mover (PM)	Number of PM units	PM Synchronous or Inverter	Number of ORC units	ORC Synchronous or Inverter	Type	Black-Start Capable	Qualification Status
RICE	2	Inverter	1	Inverter	ORC CC	Yes	Conditionally qualified

Performance at Full Load

Ambient DB/WB	Fuel in MBtu/hr (HHV)	Net Prime Mover kW	Net ORC kW	ORC Evaporator		Hot Water to Building		ORC Condenser		Cooling Water		PM NOx lbs/MW/hr
				MBtu/hr	°F	MBtu/hr	°F	MBtu/hr	°F	Supply °F	Return °F	
40°F	4,938	530	47	2.78	205	1,210	185	1,799	57	57	190	0.33
59°F	5,144	530	41	2.78	205	1,110	185	1,601	74	74	192	0.33
95/78°F	4,938	530	47	2.78	205	1,210	185	1,799	57	93	192	0.33

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*	10	14	8	5,000
Core system based on minimum width*	10	14	8	
Heat Rejection subsystem*	10	14	5	1,174
Largest part for delivery	8	6.5	7.5	7,800
Heaviest part for delivery	8	6.5	7.5	7,800

*Includes maintenance clearances.

Vendor Information

Cutone and Company Consultants dba LC Associates 555 Eighth Avenue Suite 1409 New York, NY 10018 (212) 579 4236 Info@cutone.org www.Cutone.org
--

Vendor Statement

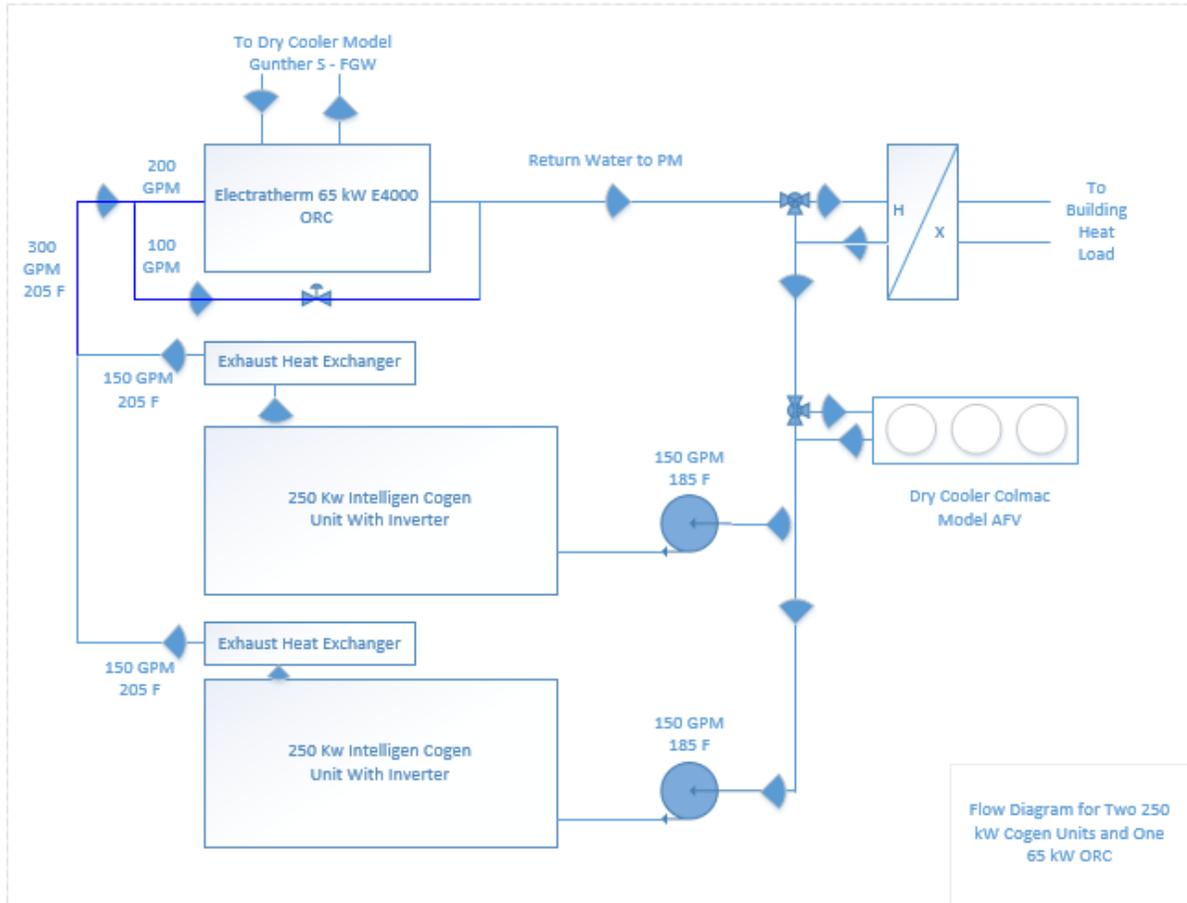
The Electrathern ORC is an American Made Organic Rankine Cycle engine unique to the market in its size. By capturing low grade waste heat from any number of available sources the Electrathern ORC generates emission free electricity without the use of fuel. Similar to a heat pump the ORC process extracts the heat from the source and expands a compressed refrigerant that turns a generator to make electricity. The units have been designed with industrial use in mind and can be installed outdoors. In this application the ORC unit has been matched to Intelligen CHP units. Intelligen CHP's are built locally and are recognized for their reliability with availability rates exceeding 95%. Electrathern and Intelligen are built to provide years of trouble-free operation. Our team of professionals and engineers are uniquely qualified to support our clients start to finish. Please contact us to start making your world Greener.

LC Associates

2E2842E312/E4000

536 kW

Process diagram showing and labeling all major components (including model numbers).





LC Associates

4E2842E312/E4000

1,072 kW

Description

Type of prime mover (PM)	Number of PM units	PM Synchronous or Inverter	Number of ORC units	ORC Synchronous or Inverter	Type	Black-Start Capable	Qualification Status
RICE	4	Inverter	2	Inverter	ORC CC	Yes	Conditionally qualified

Performance at Full Load

Ambient DB/WB	Fuel in MBtu/hr (HHV)	Net Prime Mover kW	Net ORC kW	ORC Evaporator		Hot Water to Building		ORC Condenser		Cooling Water		PM NOx lbs/MW/hr
				MBtu/hr	°F	MBtu/hr	°F	MBtu/hr	°F	Supply °F	Return °F	
40°F	4,938	1,000	94	5.56	205	3,420	185	1,799	57	57	190	0.33
59°F	5,144	1,000	82	5.56	205	2,220	185	1,601	74	74	192	0.33
95/78°F	4,938	1,000	72	5.56	205	2,060	185	1,799	93	93	192	0.33

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*	10	14	8	5,000
Core system based on minimum width*	10	14	8	
Heat Rejection subsystem*	10	14	5	1,174
Largest part for delivery	8	6.5	7.5	7,800
Heaviest part for delivery	8	6.5	7.5	7,800

*Includes maintenance clearances.

Vendor Information

Cutone and Company Consultants dba LC Associates 555 Eighth Avenue Suite 1409 New York, NY 10018 (212) 579 4236 Info@cutone.org www.Cutone.org
--

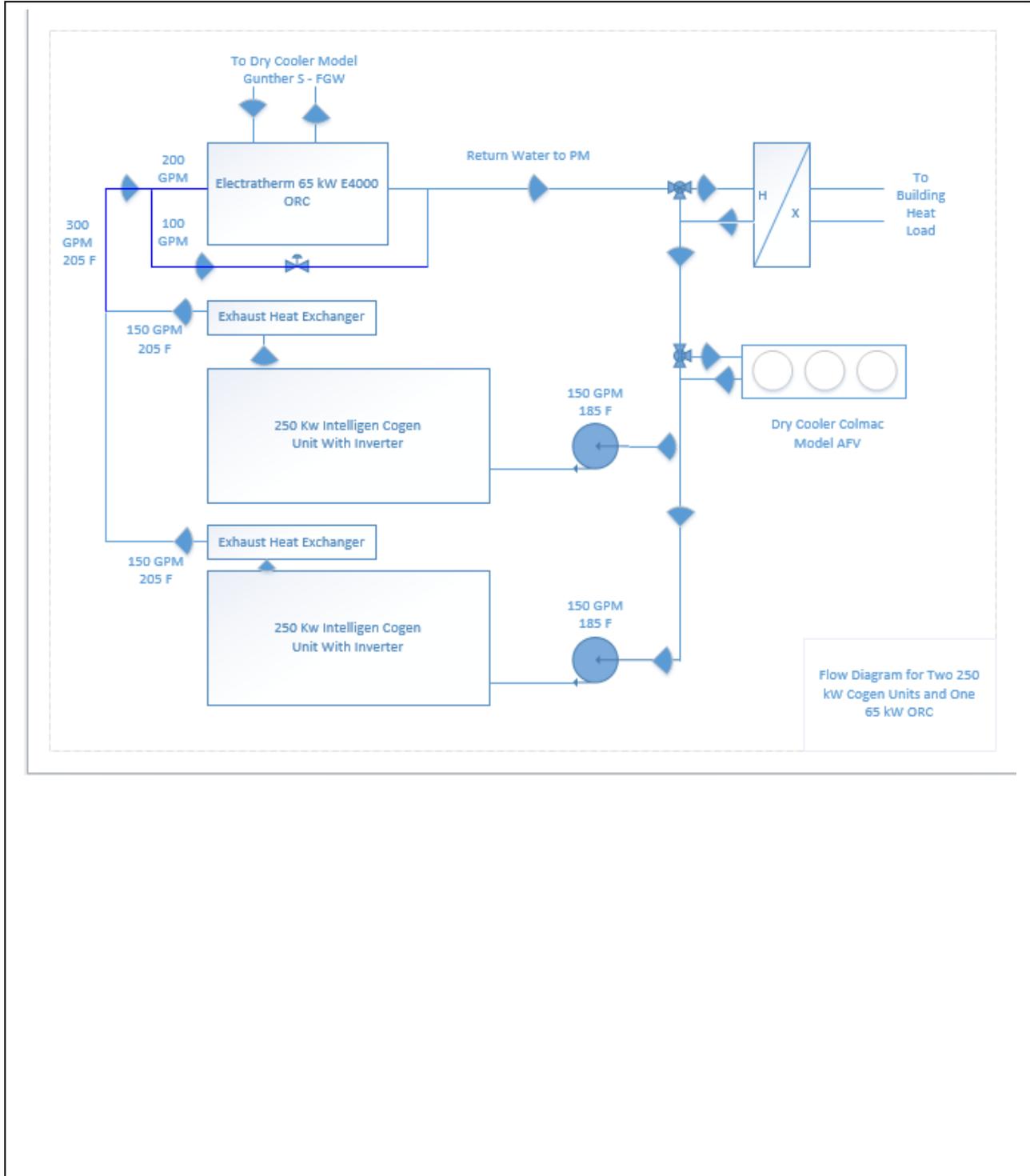
Vendor Statement

The Electrathern ORC is an American Made Organic Rankine Cycle engine unique to the market in its size. By capturing low grade waste heat from any number of available sources the Electrathern ORC generates emission free electricity without the use of fuel. Similar to a heat pump the ORC process extracts the heat from the source and expands a compressed refrigerant that turns a generator to make electricity. The units have been designed with industrial use in mind and can be installed outdoors. In this application the ORC unit has been matched to Intelligen CHP units. Intelligen CHP's are built locally and are recognized for their reliability with availability rates exceeding 95%. Electrathern and Intelligen are built to provide years of trouble-free operation. Our team of professionals and engineers are uniquely qualified to support our clients start to finish. Please contact us to start making your world Greener.

LC Associates

4E2842E312/E4000

1,072 kW





Lightfoot Energy Solutions

LFEM160EI6M14

160 kW

Description

Type of prime mover	Number of prime mover units	Synchronous, Inverter or Induction	Type	Black-Start Capable	Qualification Status
RICE	1	Synchronous	CHP-HW	Yes	Conditionally qualified

Performance

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	Hot Water to Building @ 180°F			NOx lbs/MWh
					MBtu/h	Return °F	Net System Efficiency % (HHV)	
100%	59°F	1,653	150	31.0	802	176	79.5	.3
	95°F	1,653	150	31.0	802	176	79.5	.3
75%	59°F	1,305	112.5	29.4	661	176	80.1	.3
	95°F	1,305	112.5	29.4	661	176	80.1	.3
50%	59°F	975	75	26.3	513	176	78.9	.3
	95°F	975	75	26.3	513	176	78.9	.3

Notes: 1 – All performance data based on fuel energy content of 1,050 Btu/CF HHV

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*	12	9	9.33	7,500
Core system based on minimum width*	8	9	9.33	
Heat Rejection subsystem*	4	10	4	2,000
Largest part for delivery	4	9	9.5	7,500
Heaviest part for delivery	4	9	9.5	7,500

*Includes maintenance clearances.

Vendor Information

Lightfoot Energy Solutions 9000 Crow Canyon Rd., STE. S, Box 537 Danville, CA 94506 (925) 382-4640 ed@lightfoot-energy.com www.lightfoot-energy.com

Vendor Statement

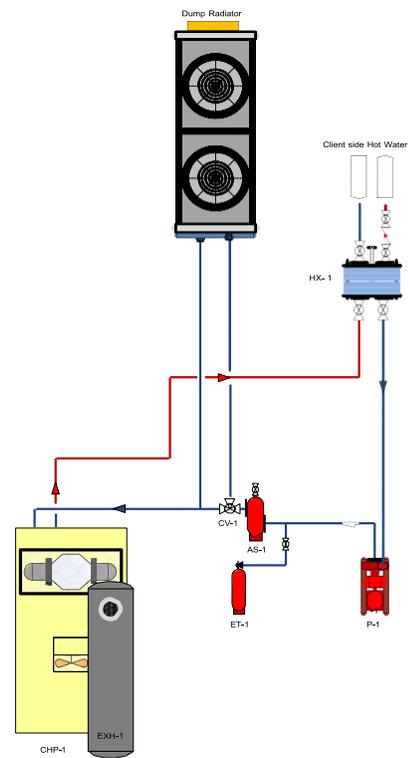
Lightfoot Energy Solutions is a turnkey provider of CHP/CCHP systems with over 40 years of experience in the design, manufacturing, installation, and operations/maintenance of co-gen systems. LFE can provide a “soup to nuts” solution for hot water, chilled water, or hot/chilled water applications. It is the goal of LFE to optimize electrical and thermal efficiency, taking a conservative approach that allows up to 80.1% combined efficiency HHV. Think base load versus variable or peak load to ensure project success. LFE is relationship focused, not transaction focused, which manifests itself in every decision made. LFE understands that our relationship with our systems will last as long as long as they exist. LFE boasts a state-of-the-art test cell for efficiency monitoring and verification capability. All systems are monitored remotely via an industrial grade control system. LFE can provide multiple financing options such as PPA (power purchase agreement) and DESA (discounted energy services agreement). Lightfoot Energy Solutions- designing, building, and financing Clean Energy Solutions for sustainability, reliability, and most important, long term savings.

Lightfoot Energy Solutions

LFEM160EI6M14

160 kW

LEGEND				
	Tag	Service	Manufacturer	
160kW Cogen Unit	CHP-1	Electrical & Thermal generation	MAN	M150E6M14
Pump	P-1	Cogeneration loop	AURORA	specifications will vary based on application
Heat Exchanger	HX-1	Hot Water Heating	GEA ECOFLEX	specifications will vary based on application
Dump Radiator	DR-1	Engine waste heat fluid cooler	Coilmaster Corporation	specifications will vary based on application
Air Separator	AS-1	Air/Dirt Separator for P-1 System	Wessels	specifications will vary based on application
Expansion Tank	ET-1	Diaphragm Type Expansion Tank	Amitrol Extrol	specifications will vary based on application
Exhaust Silencer	EXH-1	Engine Exhaust Sound Attenuation	Harco Manufacturing	specifications will vary based on application
3-Way Control Valve	CV-1	Hot water Diverting Valve	Belimo	specifications will vary based on application
Booster Compressor		Gas Booster System	Spencer	GL-1200-R rated @ 34.6" w.c. @ 96001CFH, 3 hp. 460-3-60





Lightfoot Energy Solutions

LFEM160EI6MS4 Chiller

160 kW

Description

Type of prime mover	Number of prime mover units	Synchronous, Inverter or Induction	Type	Black-Start Capable	Qualification Status
RICE	1	Synchronous	CCHP-HW	Yes	Conditionally qualified

Performance - Heating Mode

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	Hot Water to Building @ 180°F			NOx lbs/MWh
					MBtu/h	Return °F	Net System Efficiency % (HHV)	
100%	59°F	1,653	150	31.0	802	176	79.5	.3
	95°F	1,653	150	31.0	802	176	79.5	.3
75%	59°F	1,305	112.5	29.4	661	176	80.1	.3
	95°F	1,305	112.5	29.4	661	176	80.1	.3
50%	59°F	975	75	26.3	513	176	78.9	.3
	95°F	975	75	26.3	513	176	78.9	.3

¹ All performance data based on fuel energy content of 1050 Btu/CF HHV

Performance – Cooling Mode

Ambient DB/WB	Fuel in MBtu/h (HHV)	Net Prime Mover kW	Prime Mover Hot Water to Chiller			Chiller			Chiller Cooling Tower Water	
			MBtu/h	To Chiller°F	From Chiller°F	Capacity ² tons	COP	Parasitic kW	gpm	Delta T °F
95/78°F	1,653	150	802	199	184	50	.80	2.3 kW	288	10

² Using heat from the prime mover. 45 °F chilled water output.

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*	20	9	11	15,500
Core system based on minimum width*	20	9	11	
PM Heat Rejection subsystem*	4	10	4	2,000
Chiller*				
Chiller Cooling Tower*	8.5	9	12.25	7,130
Largest part for delivery	8.5	12	12.25	4,155
Heaviest part for delivery	4	9	9.5	7,500

*Includes maintenance clearances.

Vendor Information

Lightfoot Energy Solutions, LLC 9000 Crow Canyon Rd Suite S, Box 537 Danville, CA 94506 (925) 382-4640 ed@lightfoot-energy.com www.lightfoot-energy.com

Vendor Statement

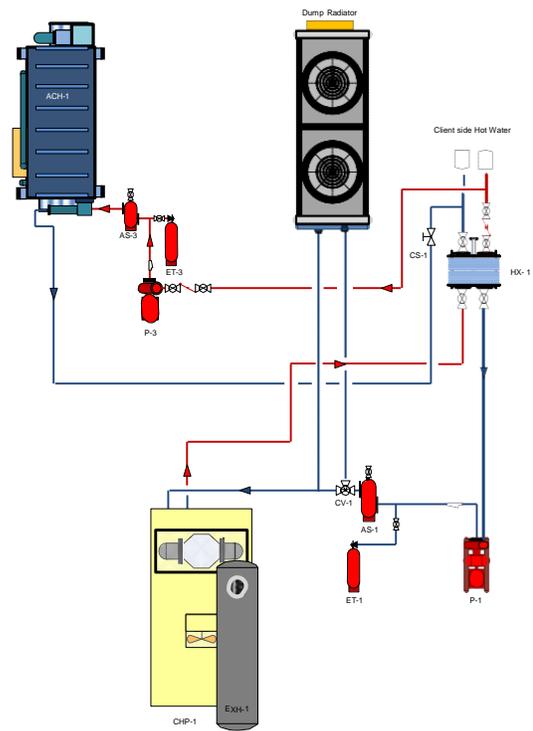
Lightfoot Energy Solutions is a turnkey provider of CHP/CCHP systems with over 40 years of experience in the design, manufacturing, installation, and operations/maintenance of co-gen systems. LFE can provide a “soup to nuts” solution for hot water, chilled water, or hot/chilled water applications. It is the goal of LFE to optimize electrical and thermal efficiency, taking a conservative approach that allows up to 80.1% combined efficiency HHV. Think base load versus variable or peak load to ensure project success. LFE is relationship focused, not transaction focused, which manifests itself in every decision made. LFE understands that our relationship with our systems will last as long as long as they exist. LFE boasts a state-of-the-art test cell for efficiency monitoring and verification capability. All systems are monitored remotely via an industrial grade control system. LFE can provide multiple financing options such as PPA (power purchase agreement) and DESA (discounted energy services agreement). Lightfoot Energy Solutions- designing, building, and financing Clean Energy Solutions for sustainability, reliability, and most important, long term savings.

Lightfoot Energy Solutions

LFEM160EI6MS4 Chiller

160 kW

LEGEND				
Tag	Service	Manufacturer		
160kW Cogen Unit	CHP-1	Electrical & Thermal generation	MAN	M150E6M14
Pump	P-1	Cogeneration loop	AURORA	specifications will vary based on application
Heat Exchanger	HX-1	Hot Water Heating	GEA ECOFLEX	specifications will vary based on application
Dump Radiator	DR-1	Engine waste heat fluid cooler	Colmaster Corporation	specifications will vary based on application
Air Separator	AS-1	Air/Dirt Separator for P-1 System	Wessels	specifications will vary based on application
Expansion Tank	ET-1	Diaphragm Type Expansion Tank	Amrol Extrol	specifications will vary based on application
Exhaust Silencer	EXH-1	Engine Exhaust Sound Attenuation	Harco Manufacturing	specifications will vary based on application
3-Way Control Valve	CV-1	Hot water Diverting Valve	Belimo	specifications will vary based on application
Booster Compressor		Gas Booster System	Spencer	CL-1200-R rated @ 34.6" w.c. @ 96001CFH, 3 hp, 460-3-60
Tag	Service	Manufacturer		
Absorption Chiller	ACH-1	Chilled Water	CENTON	specifications will vary based on application
Pump	P-3	Chilled Water Loop	AURORA	specifications will vary based on application
Air Separator	AS-3	Air/Dirt Separator for P-1 System	Wessels	specifications will vary based on application
Expansion Tank	ET-3	Diaphragm Type Expansion Tank	Amrol Extrol	specifications will vary based on application
Circuit Setter	CS-1	Water Balancing	Bell & Gossett	specifications will vary based on application





Lightfoot Energy Solutions

LFEM260EV12MS

260 kW

Description

Type of prime mover	Number of prime mover units	Synchronous, Inverter or Induction	Type	Black-Start Capable	Qualification Status
RICE	1	Synchronous	CHP-HW	Yes	Conditionally qualified

Performance

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	Hot Water to Building @ 180°F			NOx lbs/MWh
					MBtu/h	Return °F	Net System Efficiency % (HHV)	
100%	59°F	2,779	255	31.3	1,388	176	83.1	.3
	95°F	2,779	255	31.3	1,388	176	83.1	.3
75%	59°F	2,193	191.25	29.8	1,093	176	79.6	.3
	95°F	2,193	191.25	29.8	1,093	176	79.6	.3
50%	59°F	1,633	127.5	26.6	847	176	78.5	.3
	95°F	1,633	127.5	26.6	847	176	78.5	.3

Notes: 1 – All performance data based on fuel energy content of 1,050 Btu/CF HHV

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*	13.5	14.25	11	11,000
Core system based on minimum width*	13.5	14.25	11	
Heat Rejection subsystem*	4	10	4	2,000
Largest part for delivery	5.5	10.25	9.5	11,000
Heaviest part for delivery	5.5	10.25	9.5	11,000

*Includes maintenance clearances.

Vendor Information

Lightfoot Energy Solutions 9000 Crow Canyon Rd., STE. S, Box 537 Danville, CA 94506 (925) 382-4640 ed@lightfoot-energy.com www.lightfoot-energy.com

Vendor Statement

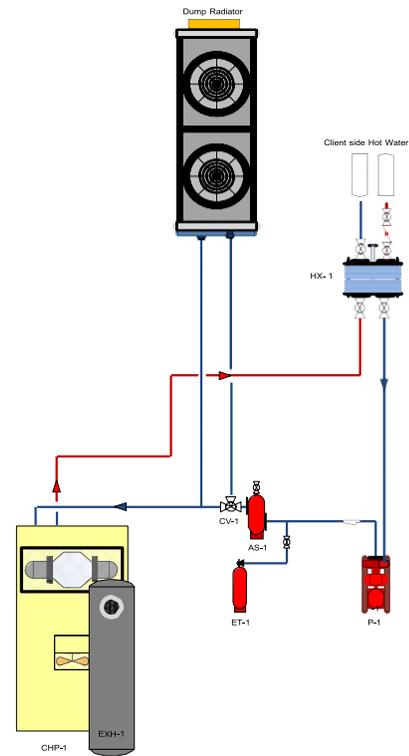
Lightfoot Energy Solutions is a turnkey provider of CHP/CCHP systems with over 40 years of experience in the design, manufacturing, installation, and operations/maintenance of co-gen systems. LFE can provide a “soup to nuts” solution for hot water, chilled water, or hot/chilled water applications. It is the goal of LFE to optimize electrical and thermal efficiency, taking a conservative approach that allows up to 83.1% combined efficiency HHV. Think base load versus variable or peak load to ensure project success. LFE is relationship focused, not transaction focused, which manifests itself in every decision made. LFE understands that our relationship with our systems will last as long as long as they exist. LFE boasts a state-of-the-art test cell for efficiency monitoring and verification capability. All systems are monitored remotely via an industrial grade control system. LFE can provide multiple financing options such as PPA (power purchase agreement) and DESA (discounted energy services agreement). Lightfoot Energy Solutions- designing, building, and financing Clean Energy Solutions for sustainability, reliability, and most important, long term savings.

Lightfoot Energy Solutions

LFEM260EV12MS

260 kW

LEGEND				
	Tag	Service	Manufacturer	Model #
260kW Cogen Unit	CHP-1	Electrical & Thermal generation	MAN	M260EV12M14
Pump	p-1	Cogeneration loop	AURORA	specifications will vary based on application
Heat Exchanger	HX-1	Hot Water Heating	GEA ECOFLEX	specifications will vary based on application
Dump Radiator	DR-1	Engine waste heat fluid cooler	Colmaster Corporation	specifications will vary based on application
Air Separator	AS-1	Air/Dirt Separator for P-1 System	Weissel	specifications will vary based on application
Expansion Tank	ET-1	Diaphragm Type Expansion Tank	Ameel Extrol	specifications will vary based on application
Exhaust Silencer	EXH-1	Engine Exhaust Sound Attenuation	Harco Manufacturing	2480VCS 8 SH-SO
3-Way Control Valve	CV-1	Hot water Diverging Valve	Belimo	specifications will vary based on application
Booster Compressor		Gas Booster System	Spencer	GL-1202-R rated @ 34.6" w.c. @ 96001CFH, 3 hp, 460-3-60





Lightfoot Energy Solutions

LFEM260EV12MS4 Chiller

260 kW

Description

Type of prime mover	Number of prime mover units	Synchronous, Inverter or Induction	Type	Black-Start Capable	Qualification Status
RICE	1	Synchronous	CCHP-HW	Yes	Conditionally qualified

Performance - Heating Mode

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	Hot Water to Building @ 180°F			NOx lbs/MWh
					MBtu/h	Return °F	Net System Efficiency % (HHV)	
100%	59°F	2,779	255	31.3	1,388	176	81.3	.3
	95°F	2,779	255	31.3	1,388	176	81.3	.3
75%	59°F	2,193	191.25	29.8	1,093	176	79.6	.3
	95°F	2,193	191.25	29.8	1,093	176	79.6	.3
50%	59°F	1,633	127.5	26.7	847	176	78.5	.3
	95°F	1,633	127.5	26.7	847	176	78.5	.3

¹ All performance data based on fuel energy content of 1050 Btu/CF HHV

Performance – Cooling Mode

Ambient DB/WB	Fuel in MBtu/h (HHV)	Net Prime Mover kW	Prime Mover Hot Water to Chiller			Chiller			Chiller Cooling Tower Water	
			MBtu/h	To Chiller °F	From Chiller °F	Capacity ² tons	COP	Parasitic kW	gpm	Delta T °F
95/78°F	2,779	255	1,388	199	184	75	.80	2.3 kW	431	10

² Using heat from the prime mover. 45 °F chilled water output.

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*	25	20	11	18,000
Core system based on minimum width*	25	20	11	
PM Heat Rejection subsystem*	4	10	4	2,000
Chiller*				
Chiller Cooling Tower*	8.5	12	12.25	14,260
Largest part for delivery	8.5	12	12.25	8,310
Heaviest part for delivery	5.5	10.25	9.5	11,000

*Includes maintenance clearances.

Vendor Information

Lightfoot Energy Solutions, LLC 9000 Crow Canyon Rd Suite S, Box 537 Danville, CA 94506 (925) 382-4640 ed@lightfoot-energy.com www.lightfoot-energy.com

Vendor Statement

Lightfoot Energy Solutions is a turnkey provider of CHP/CCHP systems with over 40 years of experience in the design, manufacturing, installation, and operations/maintenance of co-gen systems. LFE can provide a “soup to nuts” solution for hot water, chilled water, or hot/chilled water applications. It is the goal of LFE to optimize electrical and thermal efficiency, taking a conservative approach that allows up to 81.3% combined efficiency HHV. Think base load versus variable or peak load to ensure project success. LFE is relationship focused, not transaction focused, which manifests itself in every decision made. LFE understands that our relationship with our systems will last as long as long as they exist. LFE boasts a state-of-the-art test cell for efficiency monitoring and verification capability. All systems are monitored remotely via an industrial grade control system. LFE can provide multiple financing options such as PPA (power purchase agreement) and DESA (discounted energy services agreement). Lightfoot Energy Solutions- designing, building, and financing Clean Energy Solutions for sustainability, reliability, and most important, long term savings.

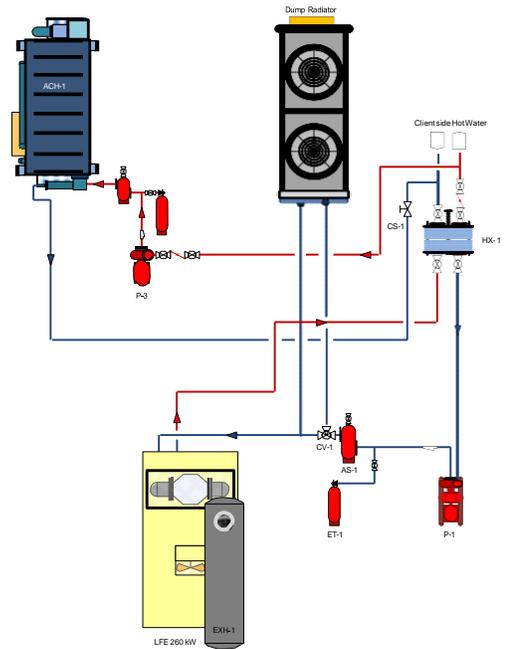
Lightfoot Energy Solutions

LFEM260EV12MS4 Chiller

260 kW

LEGEND			
Tag	Service	Manufacturer	Model #
260kW Cogen Unit	CHP-1	Electrical & Thermal generation	MAN
Pump	P-1	Cogeneration loop	AURORA
Heat Exchanger	HX-1	HotWater Heating	GEA ECOFLEX
Dump Radiator	DR-1	Enginewaste heatfluid cooler	Colmaster Corporation
Air Separator	AS-1	Air/Oil Separator for P-1 System	Wessels
Expansion Tank	ET-1	Diaphragm Type Expansion Tank	Ametrol Entrol
Exhaust Silencer	EXH-1	Engine Exhaust Sound Attenuation	Harco Manufacturing
3-Way Control Valve	CV-1	Hotwater Diverting Valve	Belimo
Booster Compressor		Gas Booster System	Spencer
			GL-1202-R rated @ 34.6" w.c. @ 96001-CFH, 3 hp, 460-3-60

Tag	Service	Manufacturer	
ACH-1	Chilled Water	CENTION	
P-3	Chilled Water Loop	AURORA	
P-4	Chilled Water Loop	AURORA	
HX-3	Chilled Water Cooling	GEA ECOFLEX	
AS-3	Air/Oil Separator for P-1 System	Wessels	
ET-3	Diaphragm Type Expansion Tank	Ametrol Entrol	
CV-3	Hotwater Diverting Valve	Belimo	





Lightfoot Energy Solutions LFEM160EI6M14/LFEM260EV12MS4

420 kW

Description

Type of prime mover	Number of prime mover units	Synchronous, Inverter or Induction	Type	Black-Start Capable	Qualification Status
RICE	2	Synchronous	CHP-HW	Yes	Conditionally qualified

Performance

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	Hot Water to Building @ 180°F			NOx lbs/MWh
					MBtu/h	Return °F	Net System Efficiency % (HHV)	
100%	59°F	4,432	405	31.2	2,190	176	80.6	.3
	95°F	4,432	405	31.2	2,190	176	80.6	.3
75%	59°F	3,498	303.75	29.6	1,754	176	79.8	.3
	95°F	3,498	303.75	29.6	1,754	176	79.8	.3
50%	59°F	2,607	202.5	26.5	1,359	176	78.5	.3
	95°F	2,607	202.5	26.5	1,359	176	78.5	.3

Notes: 1 – All performance data based on fuel energy content of 1,050 Btu/CF HHV

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*	22	18.25	11	18,500
Core system based on minimum width*	22	18.25	11	
Heat Rejection subsystem*	8	10	8	2,000
Largest part for delivery	5.5	10.25	11	11,000
Heaviest part for delivery	4	10.25	9.5	11,000

*Includes maintenance clearances.

Vendor Information

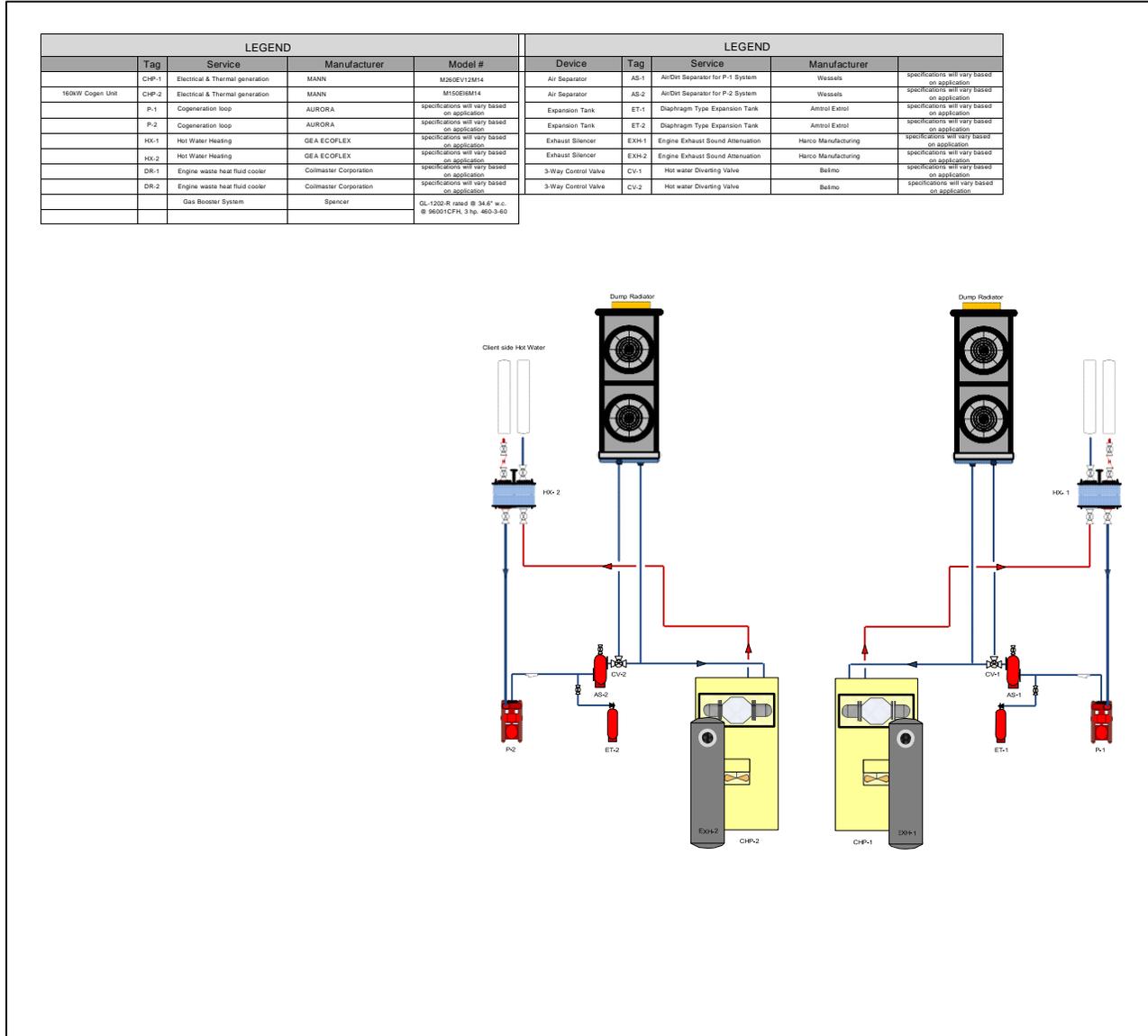
Lightfoot Energy Solutions 9000 Crow Canyon Rd., STE. S, Box 537 Danville, CA 94506 (925) 382-4640 ed@lightfoot-energy.com www.lightfoot-energy.com

Vendor Statement

Lightfoot Energy Solutions is a turnkey provider of CHP/CCHP systems with over 40 years of experience in the design, manufacturing, installation, and operations/maintenance of co-gen systems. LFE can provide a “soup to nuts” solution for hot water, chilled water, or hot/chilled water applications. It is the goal of LFE to optimize electrical and thermal efficiency, taking a conservative approach that allows up to 80.6% combined efficiency HHV. Think base load versus variable or peak load to ensure project success. LFE is relationship focused, not transaction focused, which manifests itself in every decision made. LFE understands that our relationship with our systems will last as long as long as they exist. LFE boasts a state-of-the-art test cell for efficiency monitoring and verification capability. All systems are monitored remotely via an industrial grade control system. LFE can provide multiple financing options such as PPA (power purchase agreement) and DESA (discounted energy services agreement). Lightfoot Energy Solutions- designing, building, and financing Clean Energy Solutions for sustainability, reliability, and most important, long term savings.

Lightfoot Energy Solutions LFEM160EI6M14/LFEM260EV12MS4

420 kW



Lightfoot Energy Solutions LFEM160EI6M14/LFEM260EV12MS4 Chiller 420 kW

Description

Type of prime mover	Number of prime mover units	Synchronous, Inverter or Induction	Type	Black-Start Capable	Qualification Status
RICE	2	Synchronous	CCHP-HW	Yes	Conditionally qualified

Performance - Heating Mode

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	Hot Water to Building @ 180°F			NOx lbs/MWh
					MBtu/h	Return °F	Net System Efficiency % (HHV)	
100%	59°F	4,432	405	31.2	2,190	176	80.6	.3
	95°F	4,432	405	31.2	2,190	176	80.6	.3
75%	59°F	3,498	303.75	29.6	1,754	176	79.8	.3
	95°F	3,498	303.75	29.6	1,754	176	79.8	.3
50%	59°F	2,607	202.5	26.5	1,359	176	78.5	.3
	95°F	2,607	202.5	26.5	1,359	176	78.5	.3

¹ All performance data based on fuel energy content of 1050 Btu/CF HHV

Performance – Cooling Mode

Ambient DB/WB	Fuel in MBtu/h (HHV)	Net Prime Mover kW	Prime Mover Hot Water to Chiller			Chiller			Chiller Cooling Tower Water	
			MBtu/h	To Chiller °F	From Chiller °F	Capacity ² tons	COP	Parasitic kW	gpm	Delta T °F
95/78°F	4,432	405	2,190	199	184	135	.80	2.4 kW	776	10

² Using heat from the prime mover. 45 °F chilled water output.

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*	32	20	11	18,000
Core system based on minimum width*	32	20	11	
PM Heat Rejection subsystem*	4	10	4	2,000
Chiller*				
Chiller Cooling Tower*	17	12	12.25	14,260
Largest part for delivery	8.5	12	12.25	8,310
Heaviest part for delivery	5.5	10.25	9.5	11,000

*Includes maintenance clearances.

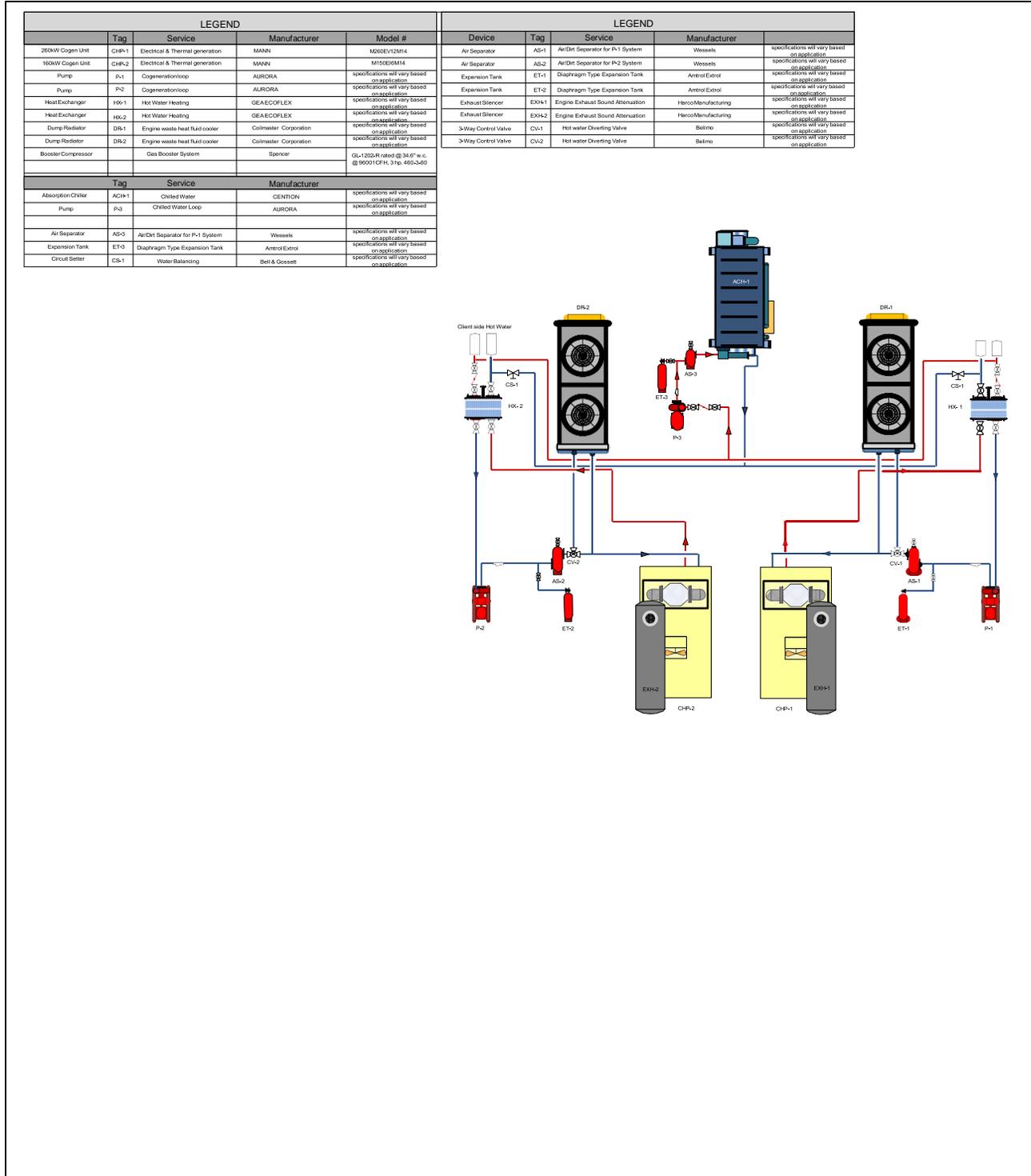
Vendor Information

Lightfoot Energy Solutions, LLC 9000 Crow Canyon Rd Suite S, Box 537 Danville, CA 94506 (925) 382-4640 ed@lightfoot-energy.com www.lightfoot-energy.com

Vendor Statement

Lightfoot Energy Solutions is a turnkey provider of CHP/CCHP systems with over 40 years of experience in the design, manufacturing, installation, and operations/maintenance of co-gen systems. LFE can provide a “soup to nuts” solution for hot water, chilled water, or hot/chilled water applications. It is the goal of LFE to optimize electrical and thermal efficiency, taking a conservative approach that allows up to 80.6% combined efficiency HHV. Think base load versus variable or peak load to ensure project success. LFE is relationship focused, not transaction focused, which manifests itself in every decision made. LFE understands that our relationship with our systems will last as long as they exist. LFE boasts a state-of-the-art test cell for efficiency monitoring and verification capability. All systems are monitored remotely via an industrial grade control system. LFE can provide multiple financing options such as PPA (power purchase agreement) and DESA (discounted energy services agreement). Lightfoot Energy Solutions- designing, building, and financing Clean Energy Solutions for sustainability, reliability, and most important, long term savings.

Lightfoot Energy Solutions LFEM160EI6M14/LFEM260EV12MS4 Chiller 420 kW





Lightfoot Energy Solutions

LFEM260EV12MS X2

520 kW

Description

Type of prime mover	Number of prime mover units	Synchronous, Inverter or Induction	Type	Black-Start Capable	Qualification Status
RICE	2	Synchronous	CHP-HW	Yes	Conditionally qualified

Performance

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	Hot Water to Building @ 180°F			NOx lbs/MWh
					MBtu/h	Return °F	Net System Efficiency % (HHV)	
100%	59°F	5,557	510	31.3	2,775	176	81.3	.3
	95°F	5,557	510	31.3	2,775	176	81.3	.3
75%	59°F	4,385	382.5	29.8	2,186	176	79.6	.3
	95°F	4,385	382.5	29.8	2,186	176	79.6	.3
50%	59°F	3,265	255	26.7	1,693	176	78.5	.3
	95°F	3,265	255	26.7	1,693	176	78.5	.3

Notes: 1 – All performance data based on fuel energy content of 1,050 Btu/CF HHV

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*	23	14.25	11	11,000
Core system based on minimum width*	23	14.25	11	
Heat Rejection subsystem*	8	10	8	4,000
Largest part for delivery	5.5	10.25	9.5	11,000
Heaviest part for delivery	5.5	10.25	9.5	11,000

*Includes maintenance clearances.

Vendor Information

Lightfoot Energy Solutions 9000 Crow Canyon Rd., STE. S, Box 537 Danville, CA 94506 (925) 382-4640 ed@lightfoot-energy.com www.lightfoot-energy.com

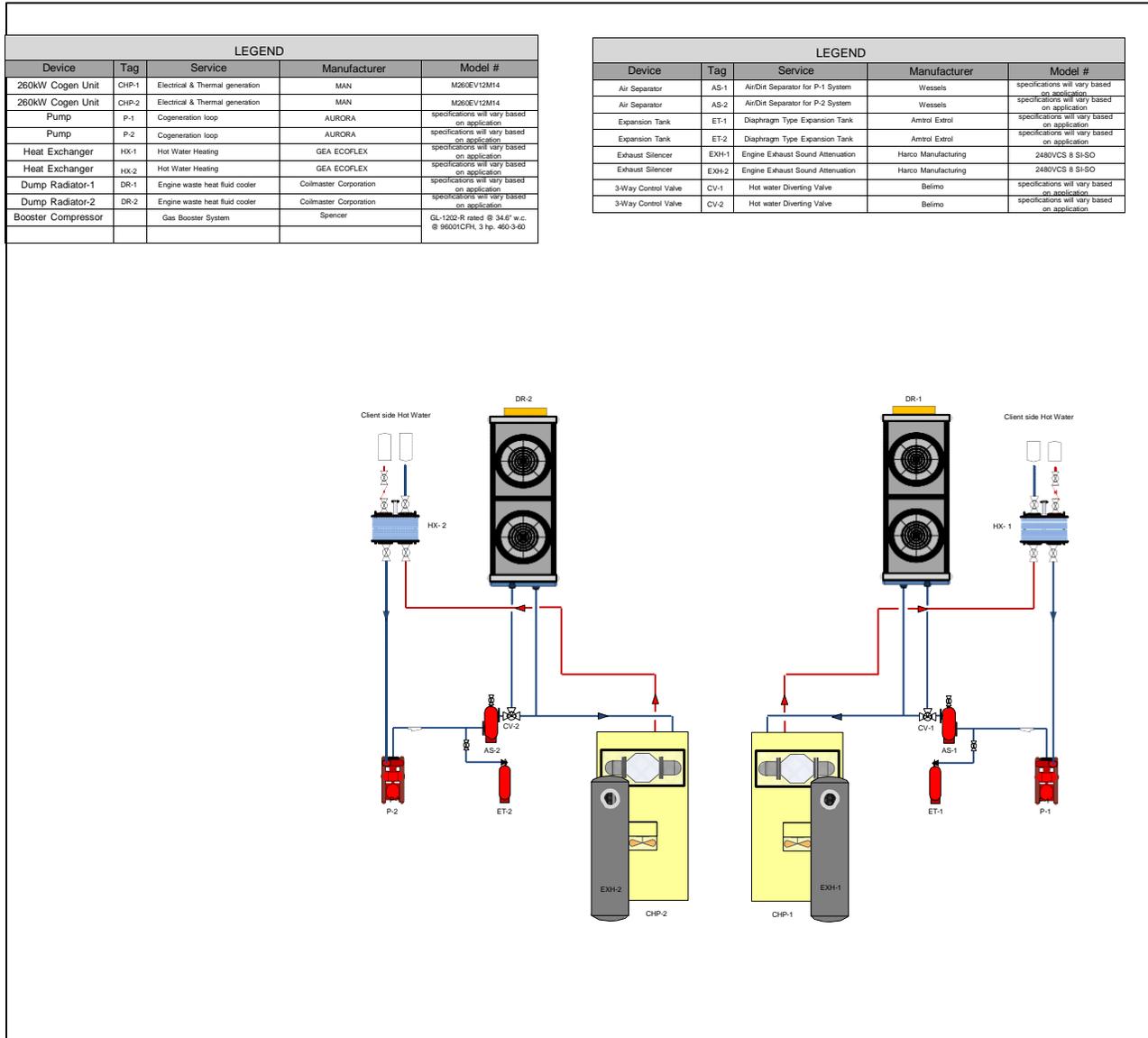
Vendor Statement

Lightfoot Energy Solutions is a turnkey provider of CHP/CCHP systems with over 40 years of experience in the design, manufacturing, installation, and operations/maintenance of co-gen systems. LFE can provide a “soup to nuts” solution for hot water, chilled water, or hot/chilled water applications. It is the goal of LFE to optimize electrical and thermal efficiency, taking a conservative approach that allows up to 81.3% combined efficiency HHV. Think base load versus variable or peak load to ensure project success. LFE is relationship focused, not transaction focused, which manifests itself in every decision made. LFE understands that our relationship with our systems will last as long as long as they exist. LFE boasts a state-of-the-art test cell for efficiency monitoring and verification capability. All systems are monitored remotely via an industrial grade control system. LFE can provide multiple financing options such as PPA (power purchase agreement) and DESA (discounted energy services agreement). Lightfoot Energy Solutions- designing, building, and financing Clean Energy Solutions for sustainability, reliability, and most important, long term savings.

Lightfoot Energy Solutions

LFEM260EV12MS X2

520 kW





Lightfoot Energy Solutions LFEM260EV12MS4 X2 Chiller

520 kW

Description

Type of prime mover	Number of prime mover units	Synchronous, Inverter or Induction	Type	Black-Start Capable	Qualification Status
RICE	2	Synchronous	CCHP-HW	Yes	Conditionally qualified

Performance - Heating Mode

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	Hot Water to Building @ 180°F			NOx lbs/MWh
					MBtu/h	Return °F	Net System Efficiency % (HHV)	
100%	59°F	5,557	510	31.3	2,775	176	81.3	.3
	95°F	5,557	510	31.3	2,775	176	81.3	.3
75%	59°F	4,385	382.5	29.8	2,186	176	79.6	.3
	95°F	4,385	382.5	29.8	2,186	176	79.6	.3
50%	59°F	3,265	255	26.7	1,693	176	78.5	.3
	95°F	3,265	255	26.7	1,693	176	78.5	.3

¹ All performance data based on fuel energy content of 1050 Btu/CF HHV

Performance – Cooling Mode

Ambient DB/WB	Fuel in MBtu/h (HHV)	Net Prime Mover kW	Prime Mover Hot Water to Chiller			Chiller			Chiller Cooling Tower Water	
			MBtu/h	To Chiller°F	From Chiller°F	Capacity ² tons	COP	Parasitic kW	gpm	Delta T °F
95/78°F	5,557	510	2,775	199	184	150	.80	4.6 kW	891	10

² Using heat from the prime mover. 45 °F chilled water output.

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*	40	20	11	18,000
Core system based on minimum width*	40	20	11	
PM Heat Rejection subsystem*	4	10	4	4,000
Chiller*				
Chiller Cooling Tower*	17	12	12.25	14,260
Largest part for delivery	8.5	12	12.25	8,310
Heaviest part for delivery	5.5	10.25	9.5	11,000

*Includes maintenance clearances.

Vendor Information

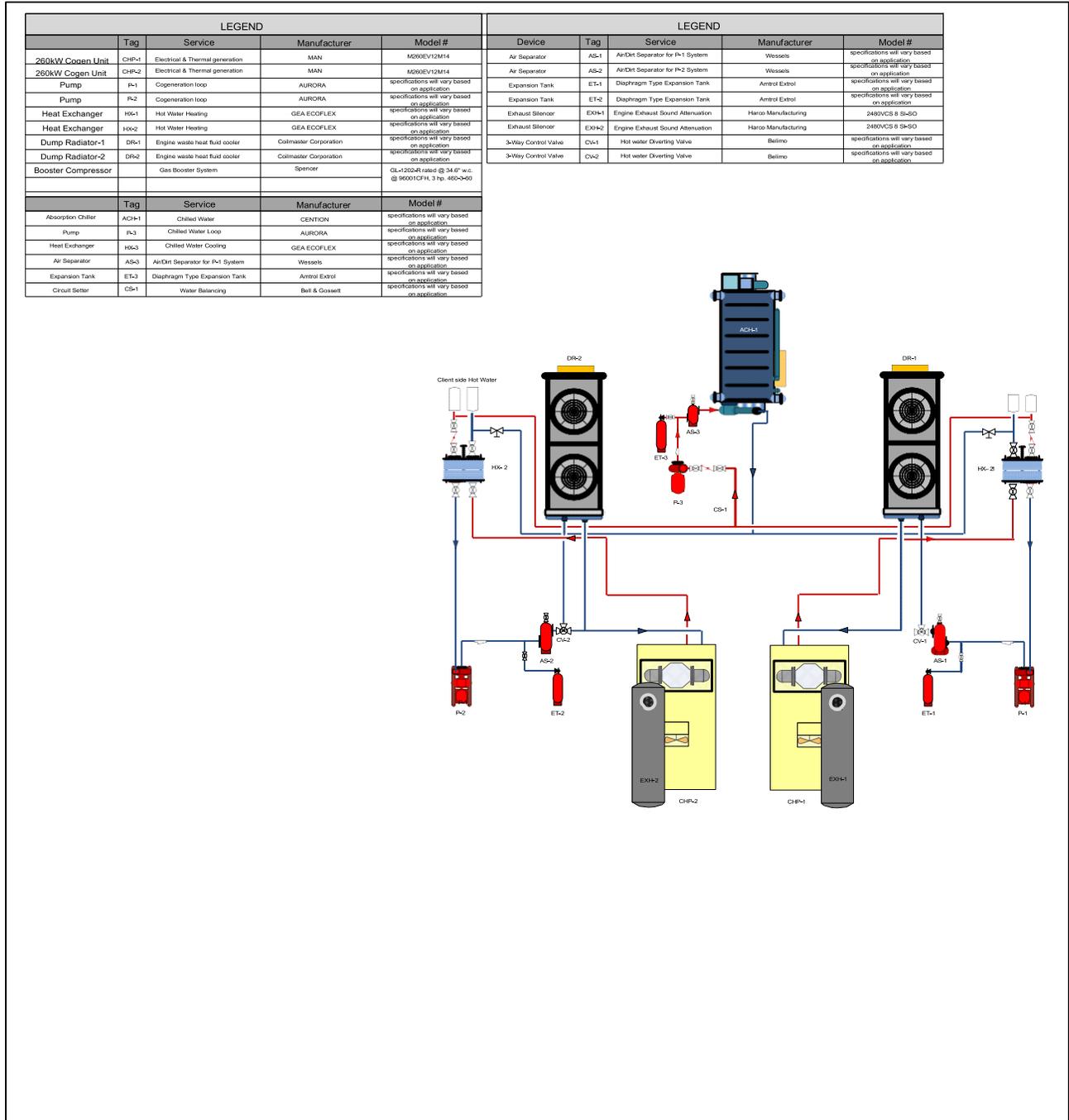
Lightfoot Energy Solutions, LLC 9000 Crow Canyon Rd Suite S, Box 537 Danville, CA 94506 (925) 382-4640 ed@lightfoot-energy.com www.lightfoot-energy.com

Vendor Statement

Lightfoot Energy Solutions is a turnkey provider of CHP/CCHP systems with over 40 years of experience in the design, manufacturing, installation, and operations/maintenance of co-gen systems. LFE can provide a “soup to nuts” solution for hot water, chilled water, or hot/chilled water applications. It is the goal of LFE to optimize electrical and thermal efficiency, taking a conservative approach that allows up to 81.3% combined efficiency HHV. Think base load versus variable or peak load to ensure project success. LFE is relationship focused, not transaction focused, which manifests itself in every decision made. LFE understands that our relationship with our systems will last as long as they exist. LFE boasts a state-of-the-art test cell for efficiency monitoring and verification capability. All systems are monitored remotely via an industrial grade control system. LFE can provide multiple financing options such as PPA (power purchase agreement) and DESA (discounted energy services agreement). Lightfoot Energy Solutions- designing, building, and financing Clean Energy Solutions for sustainability, reliability, and most important, long term savings.

Lightfoot Energy Solutions LFEM260EV12MS4 X2 Chiller

520 kW





Lightfoot Energy Solutions

LFEM260EV12MS4 X3

780 kW

Description

Type of prime mover	Number of prime mover units	Synchronous, Inverter or Induction	Type	Black-Start Capable	Qualification Status
RICE	3	Synchronous	CHP-HW	Yes	Conditionally qualified

Performance

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	Hot Water to Building @ 180°F			NOx lbs/MWh
					MBtu/h	Return °F	Net System Efficiency % (HHV)	
100%	59°F	8,336	765	31.3	4,163	176	81.3	.3
	95°F	8,336	765	31.3	4,163	176	81.3	.3
75%	59°F	6,578	573.75	29.8	3,278	176	79.6	.3
	95°F	6,578	573.75	29.8	3,278	176	79.6	.3
50%	59°F	4,898	382.5	26.7	2,540	176	78.5	.3
	95°F	4,898	382.5	26.7	2,540	176	78.5	.3

Notes: 1 – All performance data based on fuel energy content of 1,050 Btu/CF HHV

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*	33	14.25	11	33,000
Core system based on minimum width*	33	14.25	11	
Heat Rejection subsystem*	12	10	4	6,000
Largest part for delivery	5.5	10.25	9.5	11,000
Heaviest part for delivery	5.5	10.25	9.5	11,000

*Includes maintenance clearances.

Vendor Information

Lightfoot Energy Solutions 9000 Crow Canyon Rd., STE. S, Box 537 Danville, CA 94506 (925) 382-4640 ed@lightfoot-energy.com www.lightfoot-energy.com

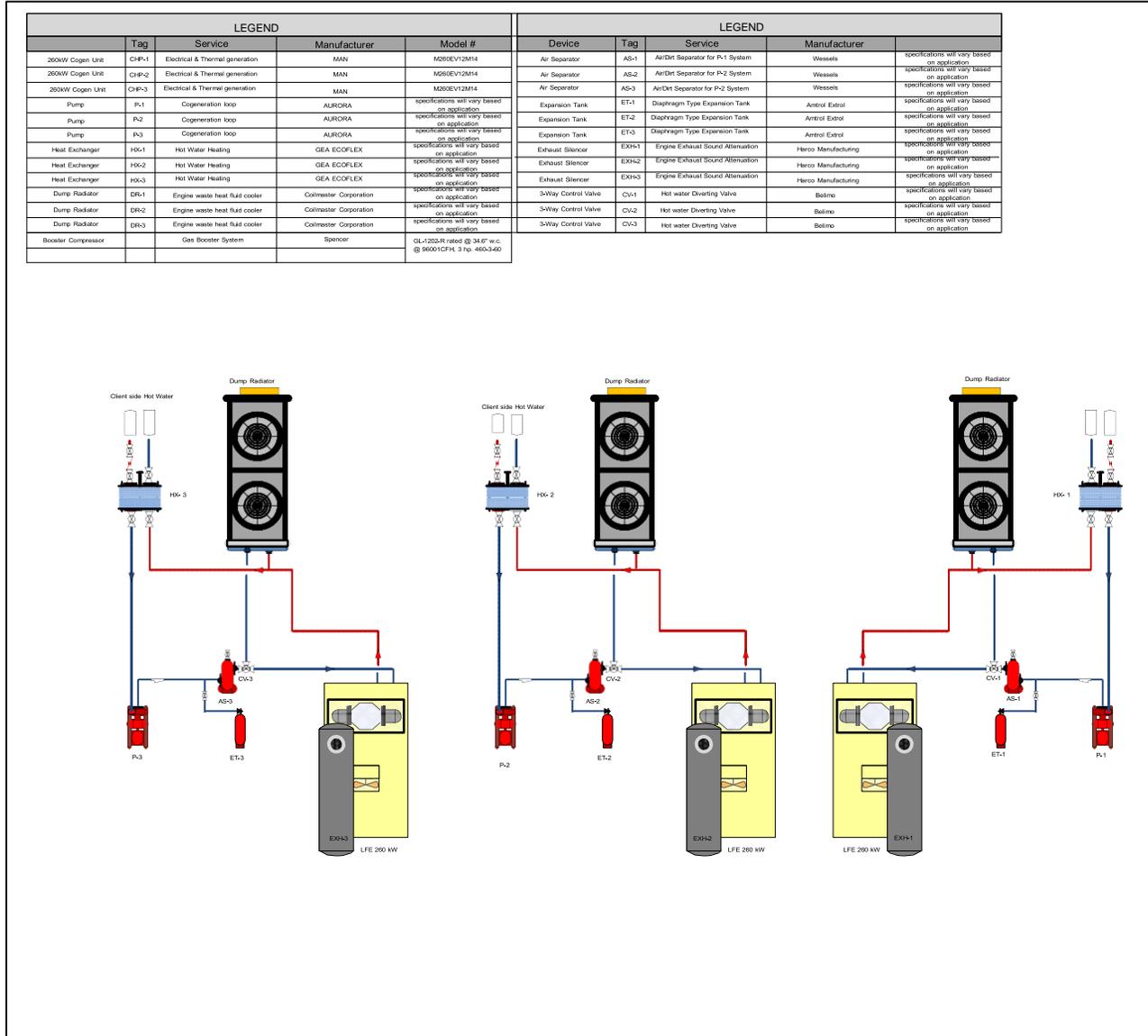
Vendor Statement

Lightfoot Energy Solutions is a turnkey provider of CHP/CCHP systems with over 40 years of experience in the design, manufacturing, installation, and operations/maintenance of co-gen systems. LFE can provide a “soup to nuts” solution for hot water, chilled water, or hot/chilled water applications. It is the goal of LFE to optimize electrical and thermal efficiency, taking a conservative approach that allows up to 81.3% combined efficiency HHV. Think base load versus variable or peak load to ensure project success. LFE is relationship focused, not transaction focused, which manifests itself in every decision made. LFE understands that our relationship with our systems will last as long as long as they exist. LFE boasts a state-of-the-art test cell for efficiency monitoring and verification capability. All systems are monitored remotely via an industrial grade control system. LFE can provide multiple financing options such as PPA (power purchase agreement) and DESA (discounted energy services agreement). Lightfoot Energy Solutions- designing, building, and financing Clean Energy Solutions for sustainability, reliability, and most important, long term savings.

Lightfoot Energy Solutions

LFEM260EV12MS4 X3

780 kW



Lightfoot Energy Solutions LFEM260EV12MS4 X3 Chiller

780 kW

Description

Type of prime mover	Number of prime mover units	Synchronous, Inverter or Induction	Type	Black-Start Capable	Qualification Status
RICE	3	Synchronous	CCHP-HW	Yes	Conditionally qualified

Performance - Heating Mode

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	Hot Water to Building @ 180°F			NOx lbs/MWh
					MBtu/h	Return °F	Net System Efficiency % (HHV)	
100%	59°F	8,336	765	31.2	4,163	176	81.3	.3
	95°F	8,336	765	31.3	4,163	176	81.3	.3
75%	59°F	6,578	573.75	29.8	3,278	176	79.6	.3
	95°F	6,578	573.75	29.8	3,278	176	79.6	.3
50%	59°F	4,898	382.5	26.7	2,540	176	78.5	.3
	95°F	4,898	382.5	26.7	2,540	176	78.5	.3

¹ All performance data based on fuel energy content of 1050 Btu/CF HHV

Performance – Cooling Mode

Ambient DB/WB	Fuel in MBtu/h (HHV)	Net Prime Mover kW	Prime Mover Hot Water to Chiller			Chiller			Chiller Cooling Tower Water	
			MBtu/h	To Chiller°F	From Chiller°F	Capacity ² tons	COP	Parasitic kW	gpm	Delta T °F
95/78°F	8,336	765	4,163	199	184	240	.80	3.4 kW	1,395	10

² Using heat from the prime mover. 45 °F chilled water output.

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*	25	20	11	43,000
Core system based on minimum width*	25	20	11	
PM Heat Rejection subsystem*	12	10	12	6,000
Chiller*				
Chiller Cooling Tower*	8.5	12	12.25	21,390
Largest part for delivery	8.5	12	12.25	4,155
Heaviest part for delivery	5.5	10.25	9.5	11,000

*Includes maintenance clearances.

Vendor Information

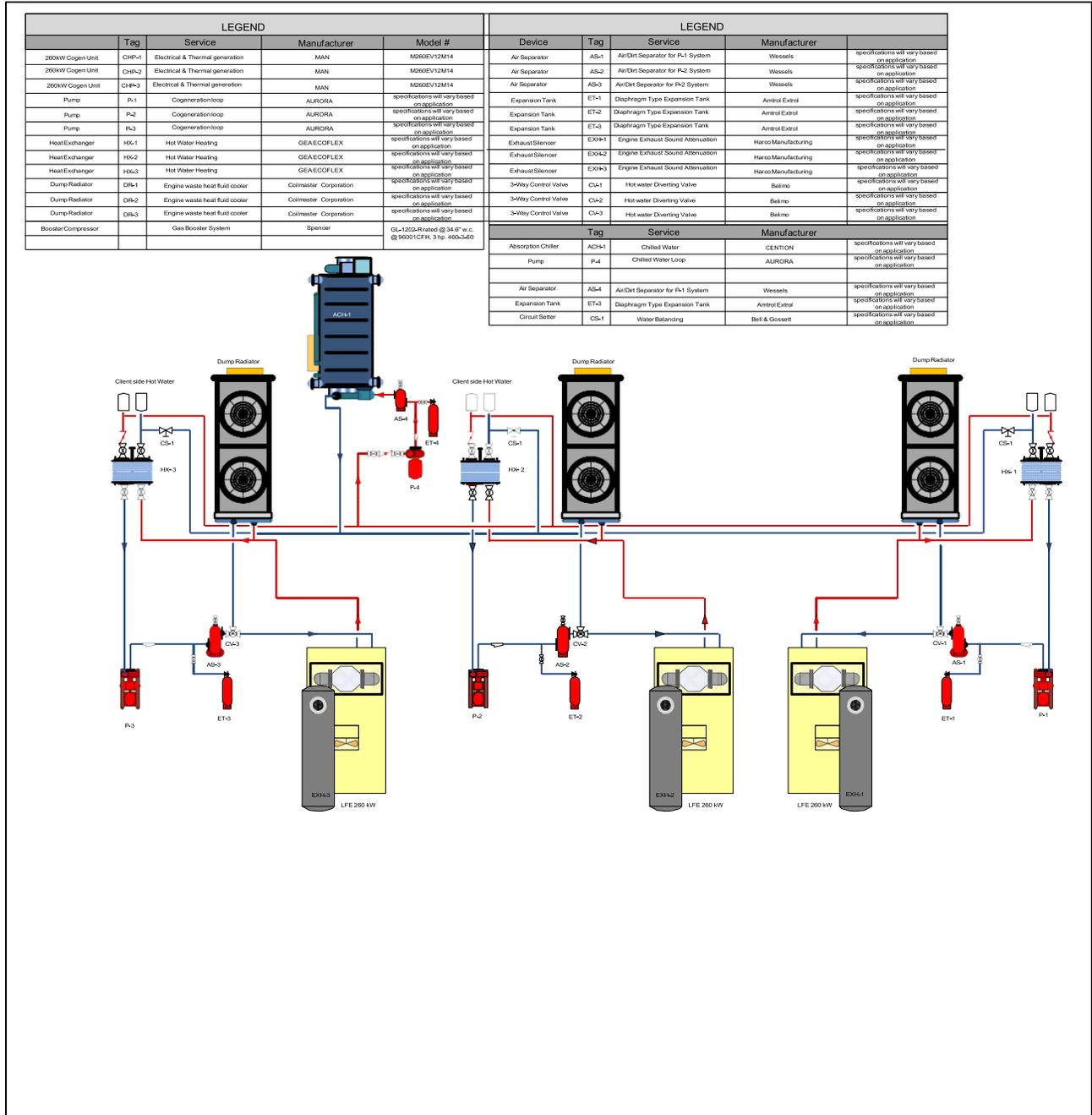
Lightfoot Energy Solutions, LLC 9000 Crow Canyon Rd Suite S, Box 537 Danville, CA 94506 (925) 382-4640 ed@lightfoot-energy.com www.lightfoot-energy.com

Vendor Statement

Lightfoot Energy Solutions is a turnkey provider of CHP/CCHP systems with over 40 years of experience in the design, manufacturing, installation, and operations/maintenance of co-gen systems. LFE can provide a “soup to nuts” solution for hot water, chilled water, or hot/chilled water applications. It is the goal of LFE to optimize electrical and thermal efficiency, taking a conservative approach that allows up to 81.3% combined efficiency HHV. Think base load versus variable or peak load to ensure project success. LFE is relationship focused, not transaction focused, which manifests itself in every decision made. LFE understands that our relationship with our systems will last as long as long as they exist. LFE boasts a state-of-the-art test cell for efficiency monitoring and verification capability. All systems are monitored remotely via an industrial grade control system. LFE can provide multiple financing options such as PPA (power purchase agreement) and DESA (discounted energy services agreement). Lightfoot Energy Solutions- designing, building, and financing Clean Energy Solutions for sustainability, reliability, and most important, long term savings.

Lightfoot Energy Solutions LFEM260EV12MS4 X3 Chiller

780 kW





Lightfoot Energy Solutions

LFEM260EV12MS4 X4

1040 kW

Description

Type of prime mover	Number of prime mover units	Synchronous, Inverter or Induction	Type	Black-Start Capable	Qualification Status
RICE	4	Synchronous	CHP-HW	Yes	Conditionally qualified

Performance

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	Hot Water to Building @ 180°F			NOx lbs/MWh
					MBtu/h	Return °F	Net System Efficiency % (HHV)	
100%	59°F	11,114	1020	31.3	5,550	176	81.3	.3
	95°F	11,114	1020	31.3	5,550	176	81.3	.3
75%	59°F	8,771	765	29.8	4,371	176	79.6	.3
	95°F	8,771	765	29.8	4,371	176	79.6	.3
50%	59°F	6,530	510	26.7	3,387	176	78.5	.3
	95°F	6,530	510	26.7	3,387	176	78.5	.3

Notes: 1 – All performance data based on fuel energy content of 1,050 Btu/CF HHV

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*	42	14.25	11	44,000
Core system based on minimum width*	42	14.25	11	
Heat Rejection subsystem*	16	10	16	8,000
Largest part for delivery	5.5	10.25	9.5	11,000
Heaviest part for delivery	5.5	10.25	9.5	11,000

*Includes maintenance clearances.

Vendor Information

Lightfoot Energy Solutions 9000 Crow Canyon Rd., STE. S, Box 537 Danville, CA 94506 (925) 382-4640 ed@lightfoot-energy.com www.lightfoot-energy.com

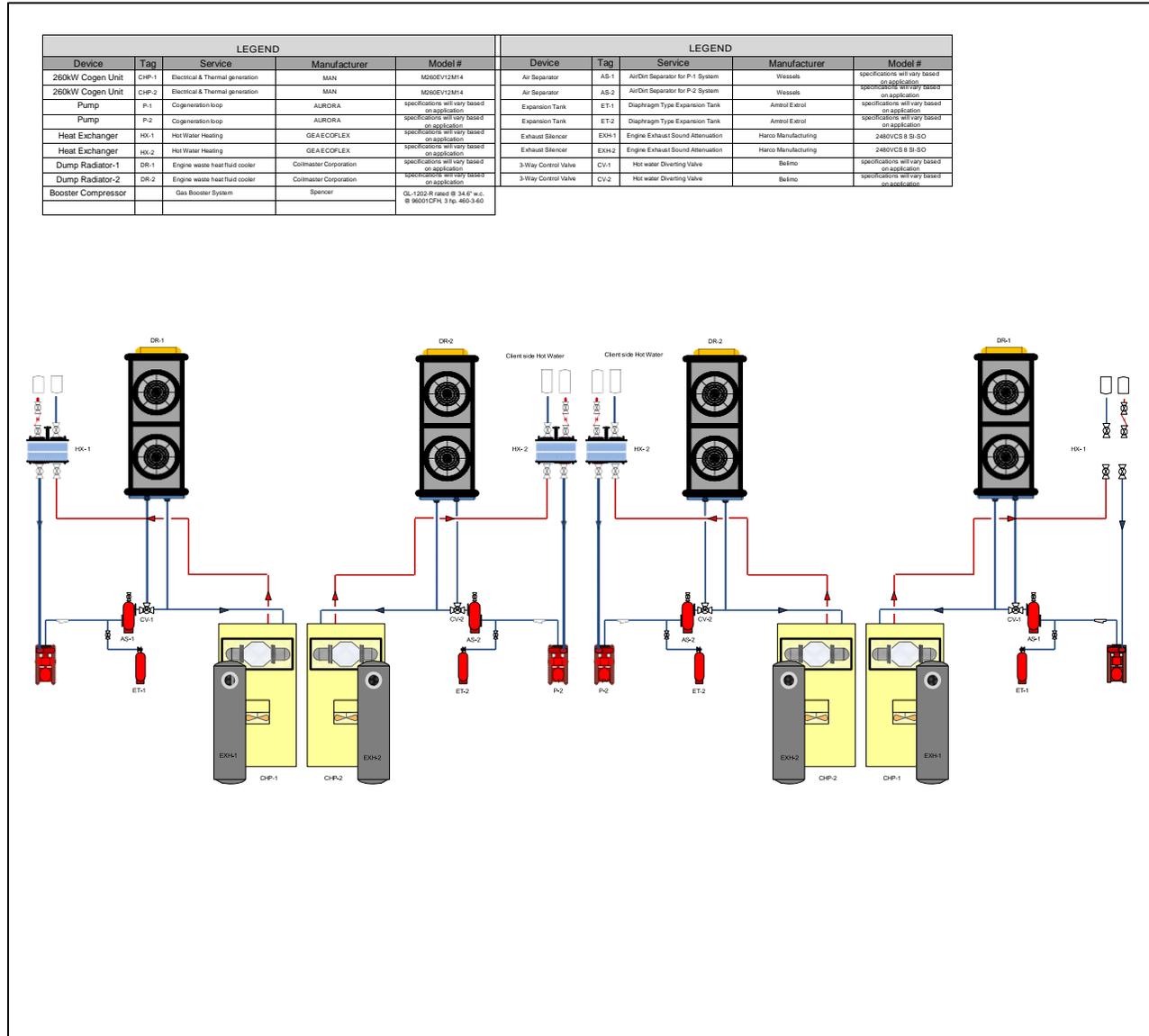
Vendor Statement

Lightfoot Energy Solutions is a turnkey provider of CHP/CCHP systems with over 40 years of experience in the design, manufacturing, installation, and operations/maintenance of co-gen systems. LFE can provide a “soup to nuts” solution for hot water, chilled water, or hot/chilled water applications. It is the goal of LFE to optimize electrical and thermal efficiency, taking a conservative approach that allows up to 81.3% combined efficiency HHV. Think base load versus variable or peak load to ensure project success. LFE is relationship focused, not transaction focused, which manifests itself in every decision made. LFE understands that our relationship with our systems will last as long as long as they exist. LFE boasts a state-of-the-art test cell for efficiency monitoring and verification capability. All systems are monitored remotely via an industrial grade control system. LFE can provide multiple financing options such as PPA (power purchase agreement) and DESA (discounted energy services agreement). Lightfoot Energy Solutions- designing, building, and financing Clean Energy Solutions for sustainability, reliability, and most important, long term savings.

Lightfoot Energy Solutions

LFEM260EV12MS4 X4

1040 kW



Lightfoot Energy Solutions LFEM260EV12MS4 X4 Chiller

1040 kW

Description

Type of prime mover	Number of prime mover units	Synchronous, Inverter or Induction	Type	Black-Start Capable	Qualification Status
RICE	4	Synchronous	CCHP-HW	Yes	Conditionally qualified

Performance - Heating Mode

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	Hot Water to Building @ 180°F			NOx lbs/MWh
					MBtu/h	Return °F	Net System Efficiency % (HHV)	
100%	59°F	11,114	1,020	31.3	5,550	176	81.3	.3
	95°F	11,114	1,020	31.3	5,550	176	81.3	.3
75%	59°F	8,771	765	29.8	4,371	176	79.6	.3
	95°F	8,771	765	29.8	4,371	176	79.6	.3
50%	59°F	6,530	510	26.7	3,387	176	78.5	.3
	95°F	6,530	510	26.7	3,387	176	78.5	.3

¹ All performance data based on fuel energy content of 1050 Btu/CF HHV

Performance – Cooling Mode

Ambient DB/WB	Fuel in MBtu/h (HHV)	Net Prime Mover kW	Prime Mover Hot Water to Chiller			Chiller			Chiller Cooling Tower Water	
			MBtu/h	To Chiller°F	From Chiller°F	Capacity ² tons	COP	Parasitic kW	gpm	Delta T °F
95/78°F	11,114	1,020	5,550	199	184	310	.80	3.4 kW	1,725	10

² Using heat from the prime mover. 45 °F chilled water output.

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*	52	20	11	54,000
Core system based on minimum width*	52	20	11	
PM Heat Rejection subsystem*	16	10	16	8,000
Chiller*				
Chiller Cooling Tower*	34	12	12.25	28,520
Largest part for delivery	8.5	12	12.25	8,310
Heaviest part for delivery	5.5	10.25	9.5	11,000

*Includes maintenance clearances.

Vendor Information

Lightfoot Energy Solutions, LLC 9000 Crow Canyon Rd Suite S, Box 537 Danville, CA 94506 (925) 382-4640 ed@lightfoot-energy.com www.lightfoot-energy.com

Vendor Statement

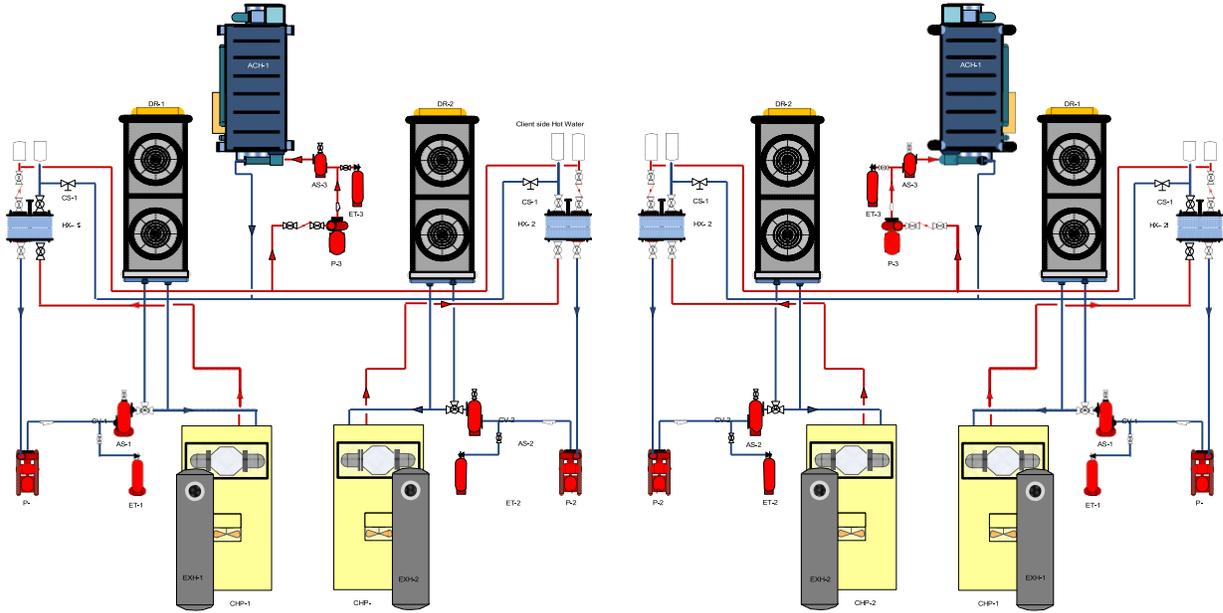
Lightfoot Energy Solutions is a turnkey provider of CHP/CCHP systems with over 40 years of experience in the design, manufacturing, installation, and operations/maintenance of co-gen systems. LFE can provide a “soup to nuts” solution for hot water, chilled water, or hot/chilled water applications. It is the goal of LFE to optimize electrical and thermal efficiency, taking a conservative approach that allows up to 81.3% combined efficiency HHV. Think base load versus variable or peak load to ensure project success. LFE is relationship focused, not transaction focused, which manifests itself in every decision made. LFE understands that our relationship with our systems will last as long as they exist. LFE boasts a state-of-the-art test cell for efficiency monitoring and verification capability. All systems are monitored remotely via an industrial grade control system. LFE can provide multiple financing options such as PPA (power purchase agreement) and DESA (discounted energy services agreement). Lightfoot Energy Solutions- designing, building, and financing Clean Energy Solutions for sustainability, reliability, and most important, long term savings.

Lightfoot Energy Solutions LFEM260EV12MS4 X4 Chiller

1040 kW

LEGEND					LEGEND				
Tag	Service	Manufacturer	Model #	Device	Tag	Service	Manufacturer	Model #	
260kW Cogen Unit	CHP-1	Electrical & Thermal generation	MAN	M260EV12M4	Air Separator	AS-1	Air/Oil Separator for P-1 System	Wessels	specifications will vary based on application
260kW Cogen Unit	CHP-2	Electrical & Thermal generation	MAN	M260EV12M4	Air Separator	AS-2	Air/Oil Separator for P-2 System	Wessels	specifications will vary based on application
Pump	P-1	Cogeneration loop	AURORA	specifications will vary based on application	Expansion Tank	ET-1	Diaphragm Type Expansion Tank	Amnol Exstol	specifications will vary based on application
Pump	P-2	Cogeneration loop	AURORA	specifications will vary based on application	Expansion Tank	ET-2	Diaphragm Type Expansion Tank	Amnol Exstol	specifications will vary based on application
Heat Exchanger	HX-1	Hot Water Heating	GEA EECOFLEX	specifications will vary based on application	Exhaust Silencer	EXH-1	Engine Exhaust Sound Attenuation	Hanco Manufacturing	248DVCS 8 Si-50
Heat Exchanger	HX-2	Hot Water Heating	GEA EECOFLEX	specifications will vary based on application	Exhaust Silencer	EXH-2	Engine Exhaust Sound Attenuation	Hanco Manufacturing	248DVCS 8 Si-50
Dump Radiator-1	DR-1	Engine waste heat fluid cooler	Colmasser Corporation	specifications will vary based on application	3-Way Control Valve	CV-1	Hot water Diverting Valve	Belimo	specifications will vary based on application
Dump Radiator-2	DR-2	Engine waste heat fluid cooler	Colmasser Corporation	specifications will vary based on application	3-Way Control Valve	CV-2	Hot water Diverting Valve	Belimo	specifications will vary based on application
Booster Compressor		Gas Booster System	Spencer	GL-1202-R rated @ 34.6" w.c. @ 96001CFH, 3 hp, 460-3-60					

Device	Tag	Service	Manufacturer	Model #
Absorption Chiller	ACH-1	Chilled Water	CENTION	specifications will vary based on application
Pump	P-3	Chilled Water Loop	AURORA	specifications will vary based on application
Heat Exchanger	HX-3	Chilled Water Cooling	GEA EECOFLEX	specifications will vary based on application
Air Separator	AS-3	Air/Oil Separator for P-1 System	Wessels	specifications will vary based on application
Expansion Tank	ET-3	Diaphragm Type Expansion Tank	Amnol Exstol	specifications will vary based on application
Circuit Seter	CS-1	Water Balancing	Ball & Gossett	specifications will vary based on application





RSP Systems

65-DM-iCHP

65kW

Description

Type of prime mover	Number of prime mover units	Synchronous or Inverter	Type	Black-Start Capable	Qualification Status
Microturbine	1	Inverter	CHP-HW	Yes	Conditionally qualified

Performance

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	Hot Water to Building @ 180°F			NOx lbs/MWh
					MBtu/h	Return °F	Net System Efficiency % (HHV)	
100%	59°F	841.5	61	25%	388	169	71%	0.46
	95°F	776.6	51	22%	373	169	70%	0.46
75%	59°F	622	45	25%	290	169	71%	0.46
	95°F	603	41	23%	255	169	66%	0.46
50%	59°F	457	29	22%	220	169	70%	0.46
	95°F	431	24	19%	186	169	62%	0.46

Notes: 1 – All performance data based on fuel energy content of 1000 Btu/CF HHV

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*	9'	17'-6"	7'-10"	3,500
Core system based on minimum width*	9'	17'-6"	7'-10"	
Heat Rejection subsystem*	N/A	N/A	N/A	
Largest part for delivery	30"	77"	83"	2,200
Heaviest part for delivery	30"	77"	83"	2,200

*Includes maintenance clearances.

Vendor Information

RSP Systems 528 Craven Street Bronx, NY 10474 718- 991-6999 sales@cogennyc.com www.rsp-systems.com

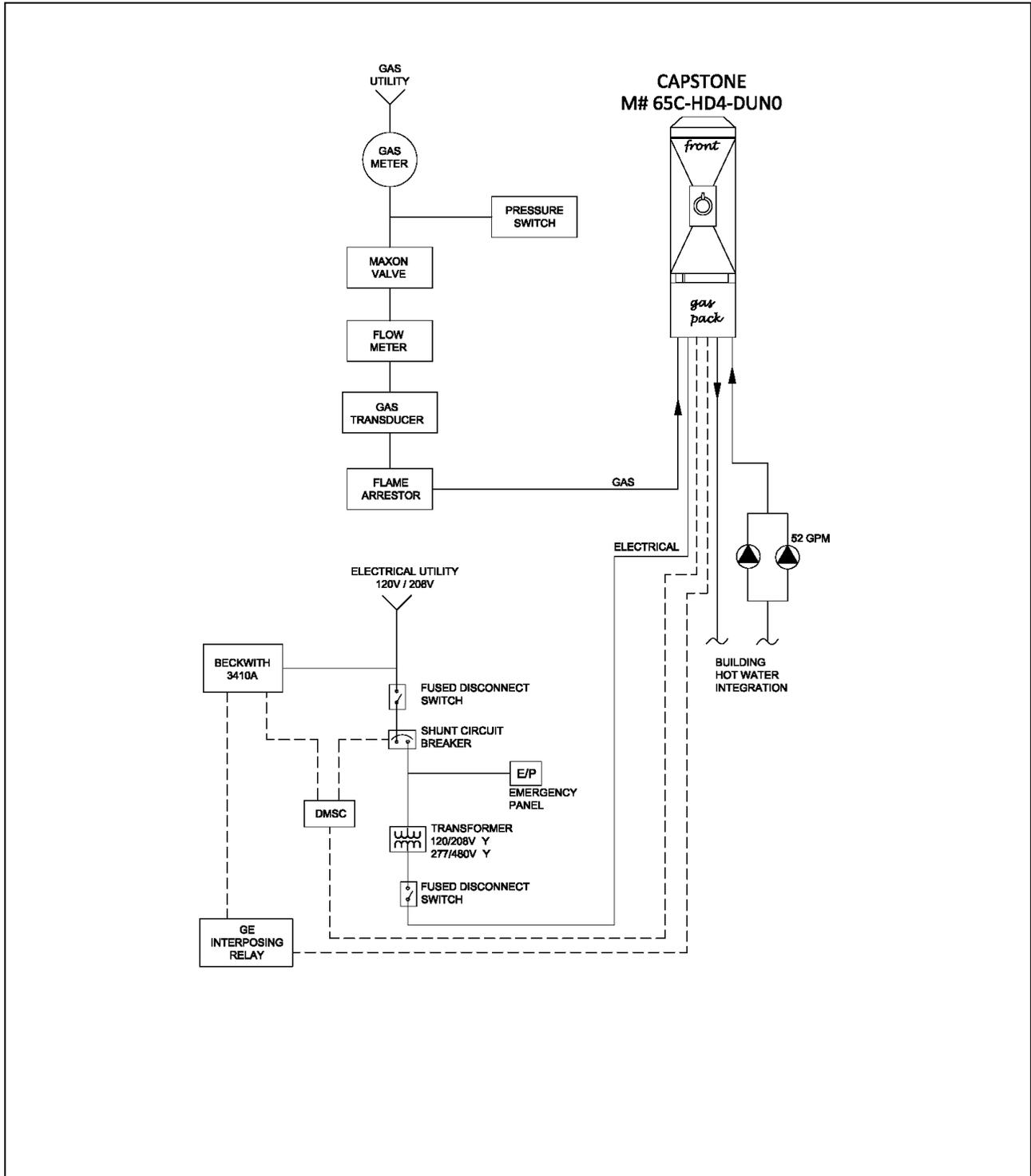
Vendor Statement

- ◆ Achieve ultra-low emissions and reliable electrical/thermal generation from natural gas.
- ◆ One moving part minimal maintenance and downtime.
- ◆ Patented air bearing requires no lubricating oil or coolant in our design.
- ◆ 9 year bumper to bumper factory protection plan with remote monitoring and data mining dashboard.
- ◆ Integrated utility synchronization and protection: inverter based.
- ◆ The unit is small with a modular design allowing for easy installation.
- ◆ Reliable, with tens of millions of run hours and counting.
- ◆ The boiler that makes electricity and provides back up power.

RSP Systems

65-DM-iCHP

65kW





RSP Systems

65-DM-iCHP-CCHP

65kW

Description

Type of prime mover	Number of prime mover units	Synchronous or Inverter	Type	Black-Start Capable	Qualification Status
Microturbine	1	Inverter	CCHP	Yes	Conditionally qualified

Performance - Heating Mode

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	Hot Water to Building @ 180°F			NOx lbs/MWh
					MBtu/h	Return °F	Net System Efficiency % (HHV)	
100%	59°F	841.5	61	25%	388	169	71%	0.46
	95°F	776.6	51	22%	373	169	70%	0.46
75%	59°F	622	45	25%	290	169	71%	0.46
	95°F	603	41	23%	255	169	66%	0.46
50%	59°F	457	29	22%	220	169	70%	0.46
	95°F	431	24	19%	186	169	62%	0.46

¹ All performance data based on fuel energy content of 1000 Btu/CF HHV

Performance – Cooling Mode

Ambient DB/WB	Fuel in MBtu/h (HHV)	Net Prime Mover kW	Prime Mover Hot Water Supply to Chiller			Chiller			Chiller Cooling Tower Water		
			MBtu/h	Supply °F	Return °F	Capacity ² tons	Coefficient of Performance	Parasitic kW	gpm	Supply °F	Return °F
95/78°F	776.6	51	373	195	180	20	0.7	1	162	85	95

² Using heat from the prime mover. 45 °F chilled water output.

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*	13'	17'-6"	7'-10"	6,050
Core system based on minimum width*	13'	17'-6"	7'-10"	
PM Heat Rejection subsystem*	N/A	N/A	N/A	
Chiller Cooling Tower*	30"	77"	93"	2,200
Largest part for delivery	30"	77"	93"	2,200
Heaviest part for delivery	13'	17'-6"	7'-10"	6,050

*Includes maintenance clearances.

Vendor Information

RSP Systems 528 Craven Street Bronx, NY 10474 718- 991-6999 sales@cogennyc.com www.rsp-systems.com

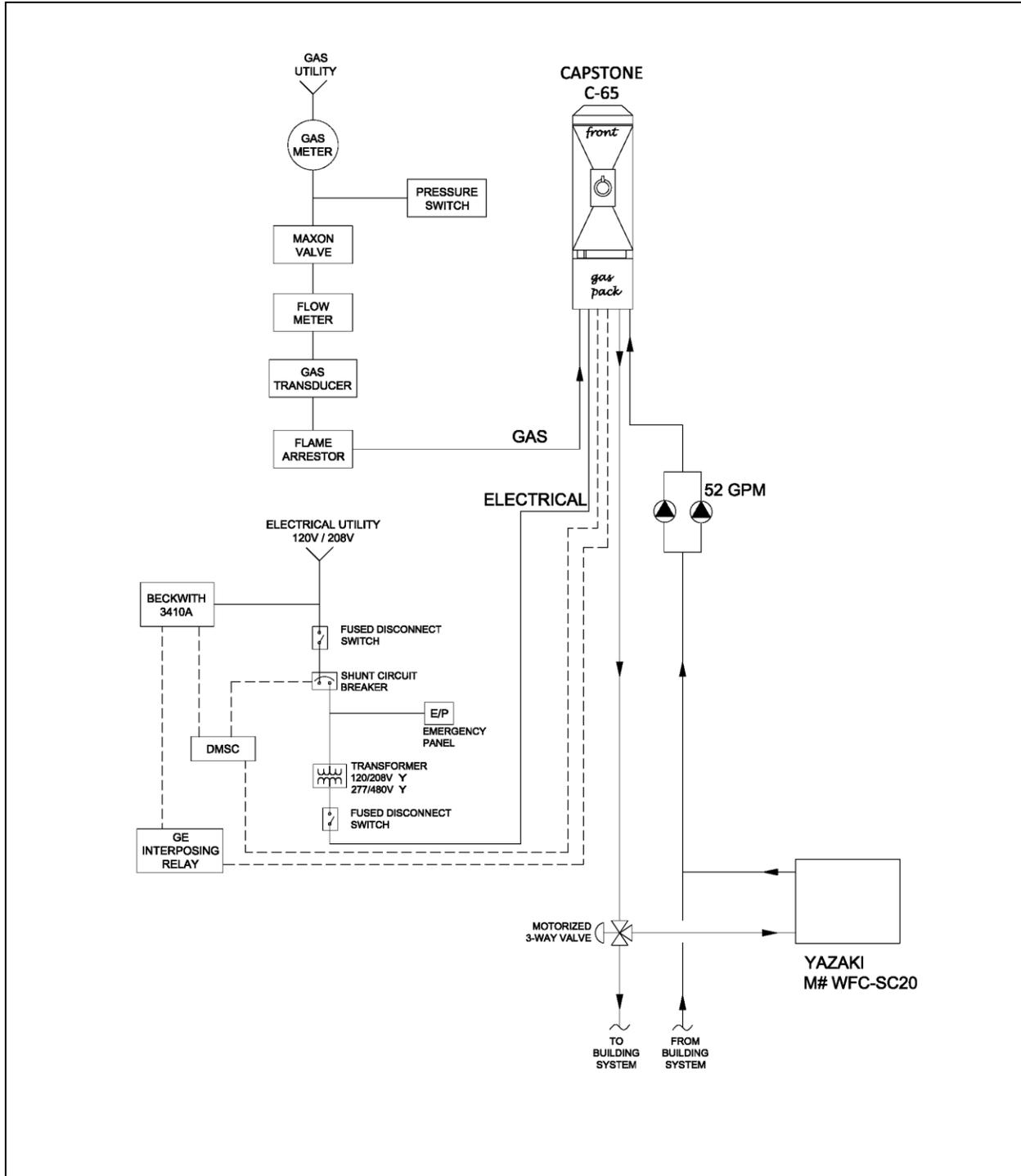
Vendor Statement

- ◆ Achieve ultra-low emissions and reliable electrical/thermal generation from natural gas.
- ◆ One moving part minimal maintenance and downtime.
- ◆ Patented air bearing requires no lubricating oil or coolant in our design.
- ◆ 9 year bumper to bumper factory protection plan with remote monitoring and data mining dashboard.
- ◆ Integrated utility synchronization and protection: inverter based.
- ◆ The unit is small with a modular design allowing for easy installation.
- ◆ Reliable, with tens of millions of run hours and counting.
- ◆ The boiler that makes electricity and provides back up power.

RSP Systems

65-DM-iCHP-CCHP

65kW





RSP Systems

130-DM-iCHP

130kW

Description

Type of prime mover	Number of prime mover units	Synchronous or Inverter	Type	Black-Start Capable	Qualification Status
Microturbine	2	Inverter	CHP-HW	Yes	Conditionally qualified

Performance

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	Hot Water to Building @ 180°F			NOx lbs/MWh
					MBtu/h	Return °F	Net System Efficiency % (HHV)	
100%	59°F	1683	122	25%	776	169	71%	0.46
	95°F	1553	102	22%	746	169	70%	0.46
75%	59°F	1244	90	25%	580	169	71%	0.46
	95°F	1206	82	23%	510	169	66%	0.46
50%	59°F	914	58	22%	440	169	70%	0.46
	95°F	862	48	19%	372	169	62%	0.46

Notes: 1 – All performance data based on fuel energy content of 1000 Btu/CF HHV

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*	14'	17'-6"	7'-10"	7,000
Core system based on minimum width*	14'	17'-6"	7'-10"	
Heat Rejection subsystem*	N/A	N/A	N/A	
Largest part for delivery	30"	77"	83"	2,200
Heaviest part for delivery	30"	77"	83"	2,200

*Includes maintenance clearances.

Vendor Information

RSP Systems 528 Craven Street Bronx, NY 10474 718- 991-6999 sales@cogennyc.com www.rsp-systems.com

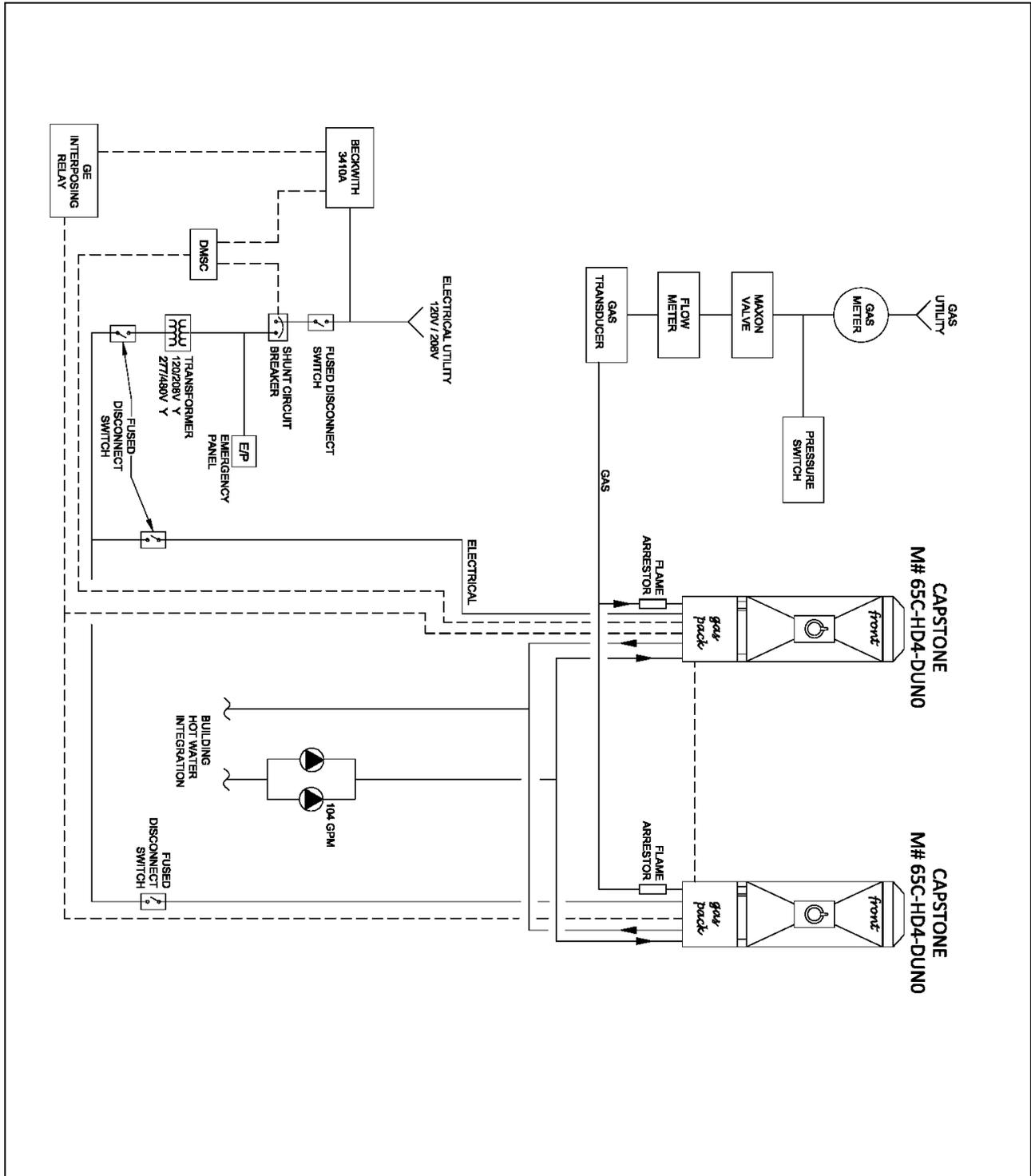
Vendor Statement

- ◆ Achieve ultra-low emissions and reliable electrical/thermal generation from natural gas.
- ◆ One moving part minimal maintenance and downtime.
- ◆ Patented air bearing requires no lubricating oil or coolant in our design.
- ◆ 9 year bumper to bumper factory protection plan with remote monitoring and data mining dashboard.
- ◆ Integrated utility synchronization and protection: inverter based.
- ◆ The unit is small with a modular design allowing for easy installation.
- ◆ Reliable, with tens of millions of run hours and counting.
- ◆ The boiler that makes electricity and provides back up power.

RSP Systems

130-DM-iCHP

130kW





RSP Systems

130-DM-iCHP-CCHP

130kW

Description

Type of prime mover	Number of prime mover units	Synchronous or Inverter	Type	Black-Start Capable	Qualification Status
Microturbine	2	Inverter	CCHP	Yes	Conditionally qualified

Performance - Heating Mode

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	Hot Water to Building @ 180°F			NOx lbs/MWh
					MBtu/h	Return °F	Net System Efficiency % (HHV)	
100%	59°F	1683	122	25%	776	169	71%	0.46
	95°F	1553	102	22%	746	169	70%	0.46
75%	59°F	1244	90	25%	580	169	71%	0.46
	95°F	1206	82	23%	510	169	66%	0.46
50%	59°F	914	58	22%	440	169	70%	0.46
	95°F	862	48	19%	372	169	62%	0.46

¹ All performance data based on fuel energy content of 1000 Btu/CF HHV

Performance – Cooling Mode

Ambient DB/WB	Fuel in MBtu/h (HHV)	Net Prime Mover kW	Prime Mover Hot Water Supply to Chiller			Chiller			Chiller Cooling Tower Water		
			MBtu/h	Supply °F	Return °F	Capacity ² tons	Coefficient of Performance	Parasitic kW	gpm	Supply °F	Return °F
95/78°F	1553	102	746	195	180	30	0.7	1	243	85	95

² Using heat from the prime mover. 45 °F chilled water output.

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*	19'	17'-6"	7'-10"	11,000
Core system based on minimum width*	19'	17'-6"	7'-10"	
PM Heat Rejection subsystem*	N/A	N/A	N/A	
Chiller Cooling Tower*	5'	5'	93"	2,200
Largest part for delivery	5'	5'	7'	3,200
Heaviest part for delivery	19'	17'-6"	7'-10"	11,000

*Includes maintenance clearances.

Vendor Information

RSP Systems 528 Craven Street Bronx, NY 10474 718- 991-6999 sales@cogennyc.com www.rsp-systems.com

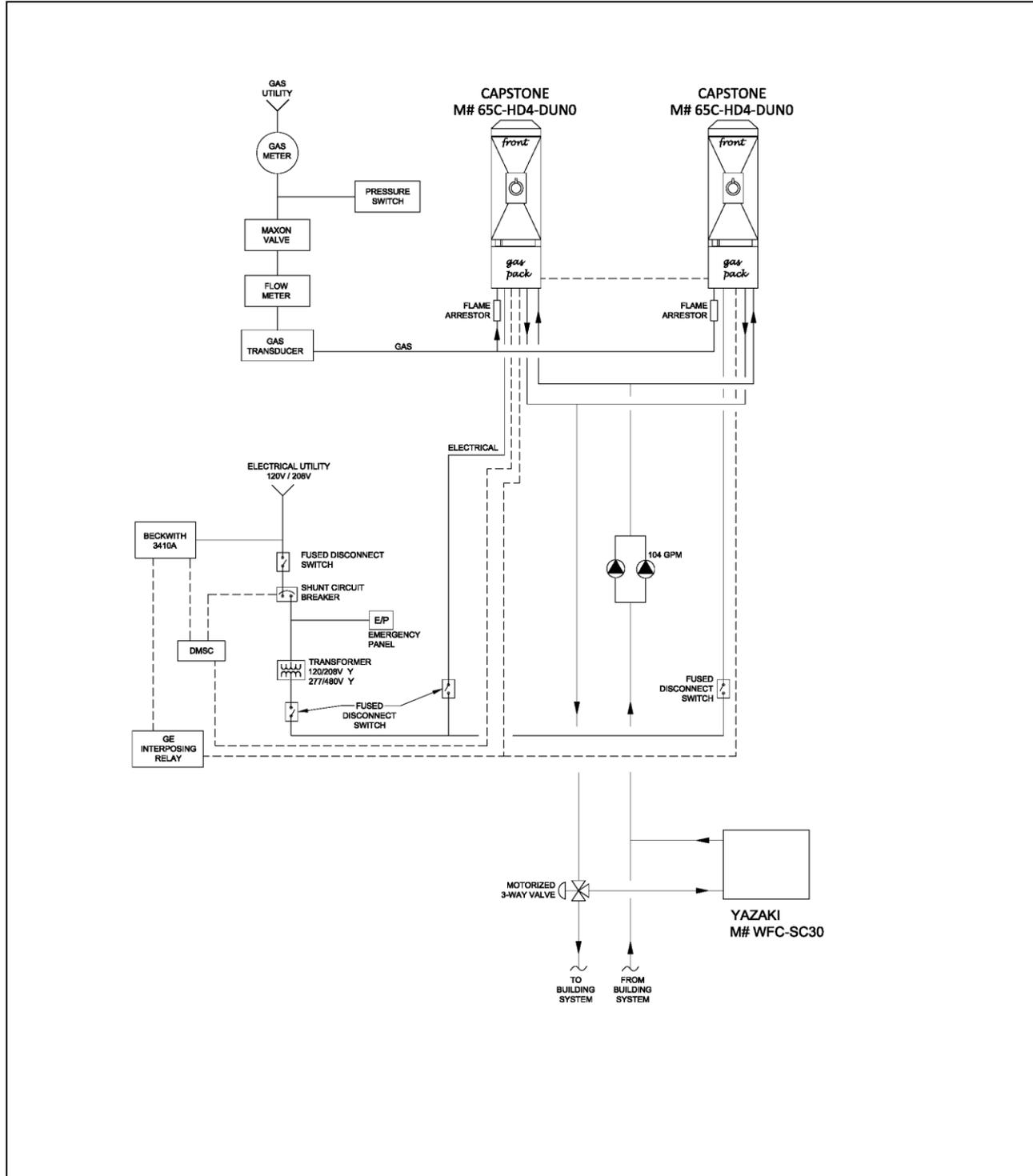
Vendor Statement

- ◆ Achieve ultra-low emissions and reliable electrical/thermal generation from natural gas.
- ◆ One moving part minimal maintenance and downtime.
- ◆ Patented air bearing requires no lubricating oil or coolant in our design.
- ◆ 9 year bumper to bumper factory protection plan with remote monitoring and data mining dashboard.
- ◆ Integrated utility synchronization and protection: inverter based.
- ◆ The unit is small with a modular design allowing for easy installation.
- ◆ Reliable, with tens of millions of run hours and counting.
- ◆ The boiler that makes electricity and provides back up power.

RSP Systems

130-DM-iCHP-CCHP

130kW





RSP Systems

195-DM-iCHP

195kW

Description

Type of prime mover	Number of prime mover units	Synchronous or Inverter	Type	Black-Start Capable	Qualification Status
Microturbine	3	Inverter	CHP-HW	Yes	Conditionally qualified

Performance

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	Hot Water to Building @ 180°F			NOx lbs/MWh
					MBtu/h	Return °F	Net System Efficiency % (HHV)	
100%	59°F	2525	183	25%	1164	169	71%	0.46
	95°F	2330	153	22%	1119	169	70%	0.46
75%	59°F	1866	135	25%	870	169	71%	0.46
	95°F	1809	123	23%	765	169	66%	0.46
50%	59°F	1371	87	22%	660	169	70%	0.46
	95°F	1293	72	19%	558	169	62%	0.46

Notes: 1 – All performance data based on fuel energy content of 1000 Btu/CF HHV

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*	14'	31'	7'-10"	10,500
Core system based on minimum width*	14'	31'	7'-10"	
Heat Rejection subsystem*	N/A	N/A	N/A	
Largest part for delivery	30"	77"	83"	2,200
Heaviest part for delivery	30"	77"	83"	2,200

*Includes maintenance clearances.

Vendor Information

RSP Systems 528 Craven Street Bronx, NY 10474 718- 991-6999 sales@cogennyc.com www.rsp-systems.com

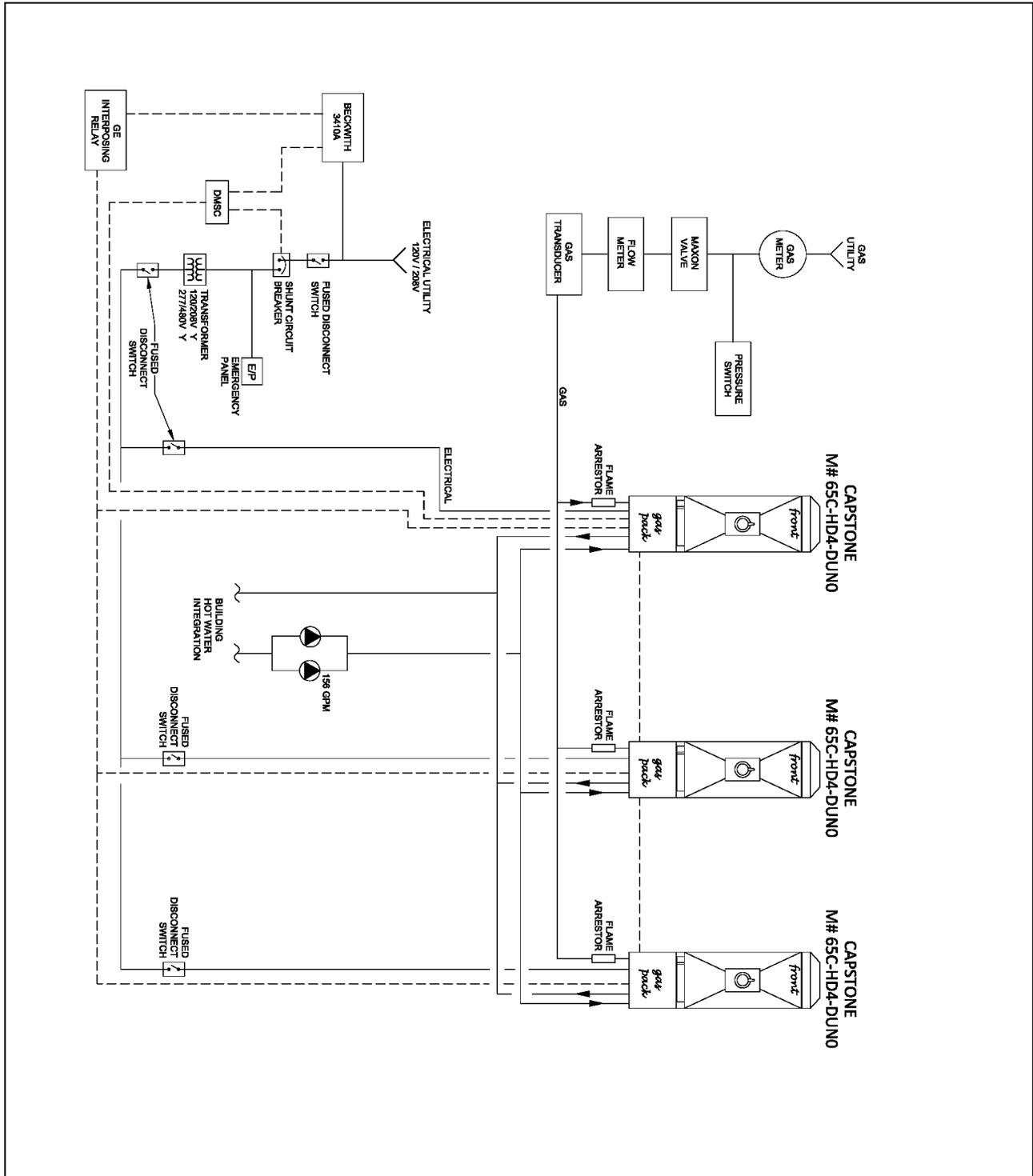
Vendor Statement

- ◆ Achieve ultra-low emissions and reliable electrical/thermal generation from natural gas.
- ◆ One moving part minimal maintenance and downtime.
- ◆ Patented air bearing requires no lubricating oil or coolant in our design.
- ◆ 9 year bumper to bumper factory protection plan with remote monitoring and data mining dashboard.
- ◆ Integrated utility synchronization and protection: inverter based.
- ◆ The unit is small with a modular design allowing for easy installation.
- ◆ Reliable, with tens of millions of run hours and counting.
- ◆ The boiler that makes electricity and provides back up power.

RSP Systems

195-DM-iCHP

195kW





RSP Systems

195-DM-iCHP-CCHP

195kW

Description

Type of prime mover	Number of prime mover units	Synchronous or Inverter	Type	Black-Start Capable	Qualification Status
Microturbine	3	Inverter	CCHP	Yes	Conditionally qualified

Performance - Heating Mode

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	Hot Water to Building @ 180°F			NOx lbs/MWh
					MBtu/h	Return °F	Net System Efficiency % (HHV)	
100%	59°F	2525	183	25%	1164	169	71%	0.46
	95°F	2330	153	22%	1119	169	70%	0.46
75%	59°F	1866	135	25%	870	169	71%	0.46
	95°F	1809	123	23%	765	169	66%	0.46
50%	59°F	1371	87	22%	660	169	70%	0.46
	95°F	1293	72	19%	558	169	62%	0.46

¹ All performance data based on fuel energy content of 1000 Btu/CF HHV

Performance – Cooling Mode

Ambient DB/WB	Fuel in MBtu/h (HHV)	Net Prime Mover kW	Prime Mover Hot Water Supply to Chiller			Chiller			Chiller Cooling Tower Water		
			MBtu/h	Supply °F	Return °F	Capacity ² tons	Coefficient of Performance	Parasitic kW	gpm	Supply °F	Return °F
95/78°F	2330	153	1119	195	180	50	0.7	1	405	85	95

² Using heat from the prime mover. 45 °F chilled water output.

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*	20'-6"	31'	7'-10"	16,500
Core system based on minimum width*	20'-6"	31'	7'-10"	
PM Heat Rejection subsystem*	N/A	N/A	N/A	
Chiller Cooling Tower*	5'-9"	6'-5"	7'-10"	2,200
Largest part for delivery	5'-9"	6'-5"	6'-10"	4,750
Heaviest part for delivery	20'-6"	31'	7'-10"	16,500

*Includes maintenance clearances.

Vendor Information

RSP Systems 528 Craven Street Bronx, NY 10474 718- 991-6999 sales@cogennyc.com www.rsp-systems.com

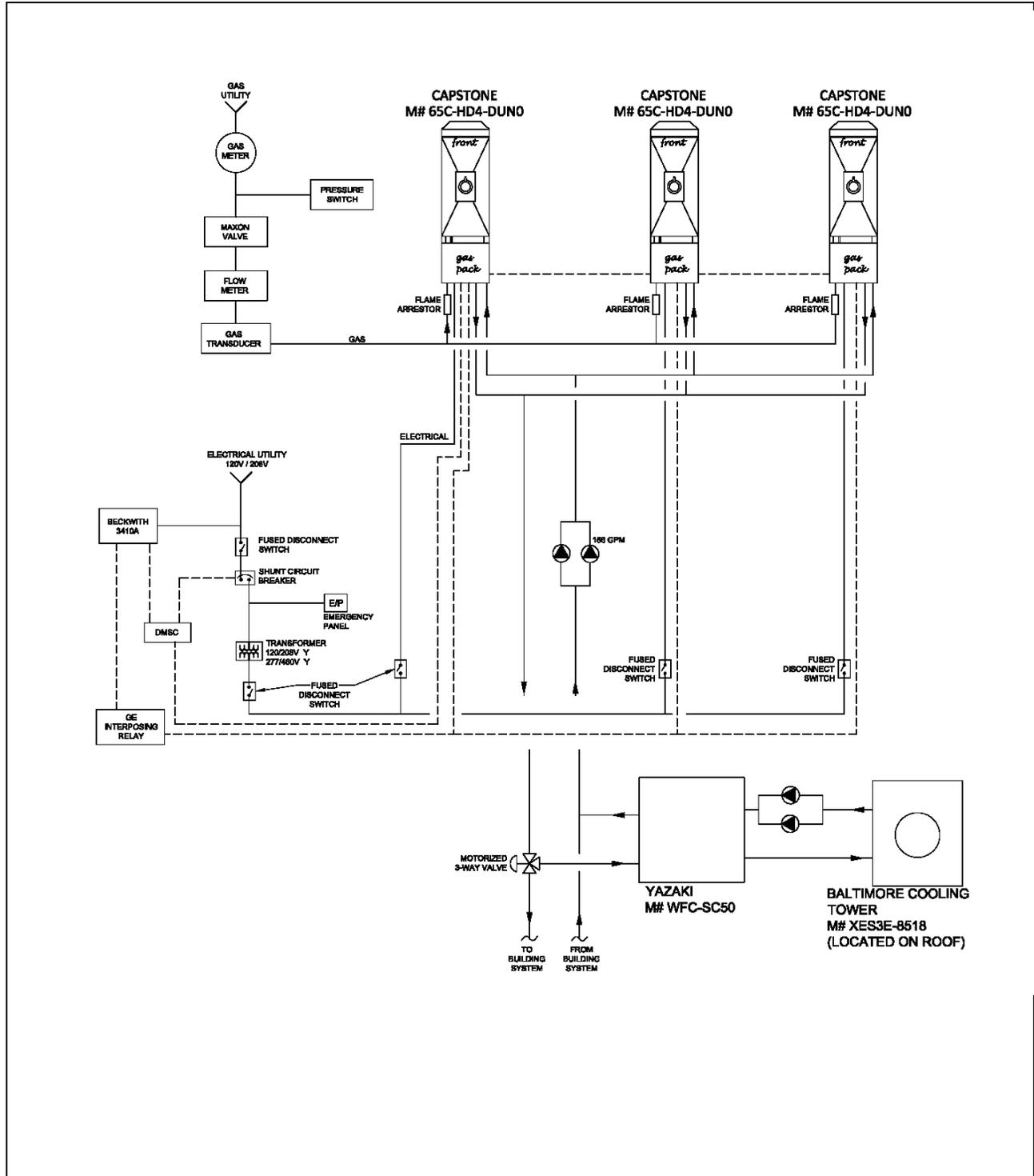
Vendor Statement

- ◆ Achieve ultra-low emissions and reliable electrical/thermal generation from natural gas.
- ◆ One moving part minimal maintenance and downtime.
- ◆ Patented air bearing requires no lubricating oil or coolant in our design.
- ◆ 9 year bumper to bumper factory protection plan with remote monitoring and data mining dashboard.
- ◆ Integrated utility synchronization and protection: inverter based.
- ◆ The unit is small with a modular design allowing for easy installation.
- ◆ Reliable, with tens of millions of run hours and counting.
- ◆ The boiler that makes electricity and provides back up power.

RSP Systems

195-DM-iCHP-CCHP

195kW



RSP Systems
C200-DM-Cain HW
200kW
Description

Type of prime mover	Number of prime mover units	Synchronous or Inverter	Type	Black-Start Capable	Qualification Status
Microturbine	1	Inverter	CHP-HW	Yes	Conditionally qualified

Performance

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	Hot Water to Building @ 180°F			NOx lbs/MWh
					MBtu/h	Return °F	Net System Efficiency % (HHV)	
100%	59°F	2287	190	28%	811	170	64%	0.40
	95°F	2140	168	27%	721	170	61%	0.40
75%	59°F							
	95°F							
50%	59°F							
	95°F							

Notes: 1 – All performance data based on fuel energy content of 1000 Btu/CF HHV

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*	20'-10"	20'-10"	8'-3"	10,241
Core system based on minimum width*	20'-10"	20'-10"	8'-3"	
Heat Rejection subsystem*	N/A	N/A	N/A	
Largest part for delivery	5'-6"	12'	8'-3"	8,000
Heaviest part for delivery	5'-6"	12'	8'-3"	8,000

*Includes maintenance clearances.

Vendor Information

RSP Systems 528 Craven Street Bronx, NY 10474 718- 991-6999 sales@cogennyc.com www.rsp-systems.com

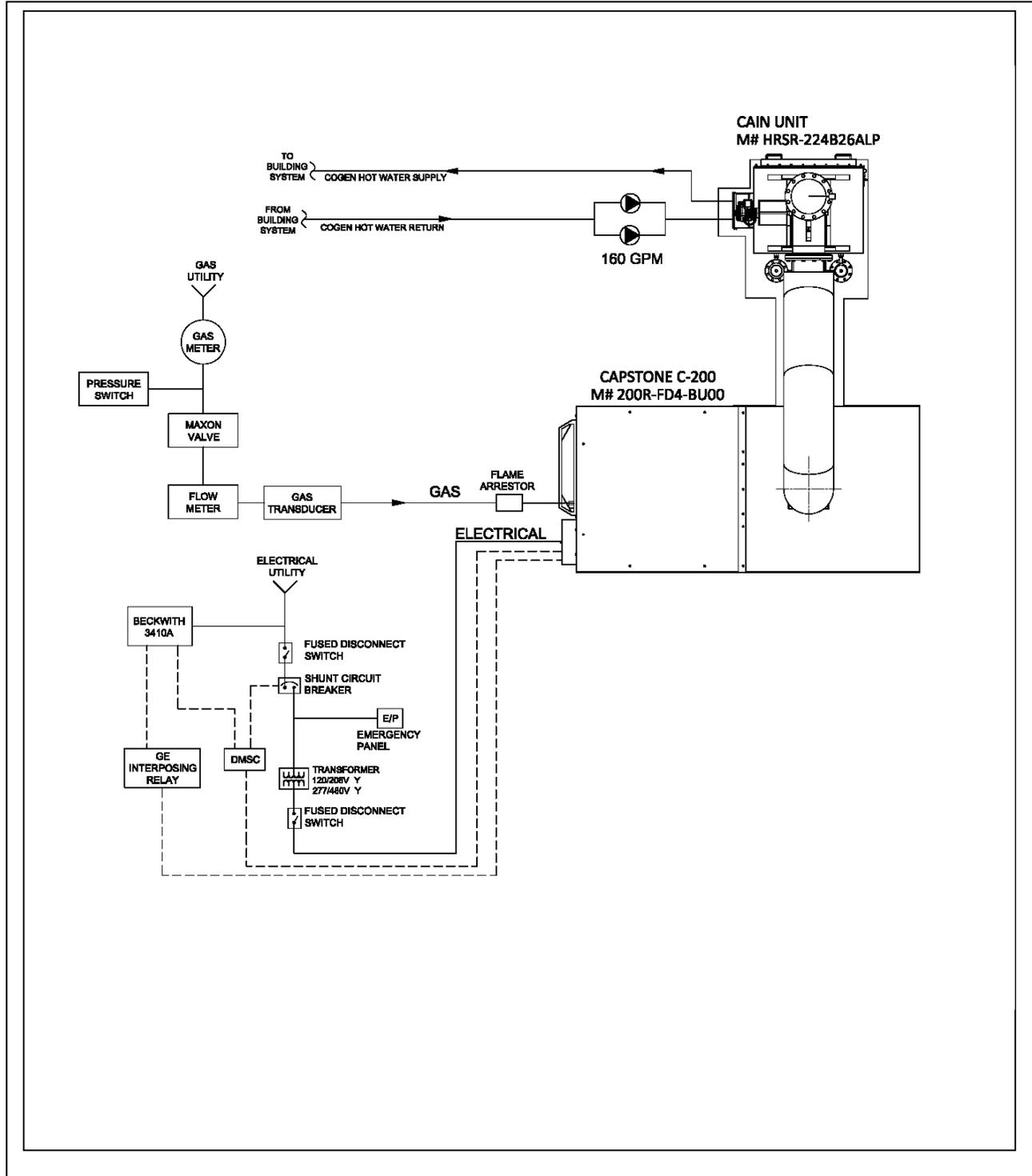
Vendor Statement

<ul style="list-style-type: none"> ◆ Achieve ultra-low emissions and reliable electrical/thermal generation from natural gas. ◆ One moving part minimal maintenance and downtime. ◆ Patented air bearing requires no lubricating oil or coolant in our design. ◆ 9 year bumper to bumper factory protection plan with remote monitoring and data mining dashboard. ◆ Integrated utility synchronization and protection: inverter based. ◆ The unit is small with a modular design allowing for easy installation. ◆ Reliable, with tens of millions of run hours and counting. ◆ The boiler that makes electricity and provides back up power.
--

RSP Systems

C200-DM-Cain HW

200kW





RSP Systems

C200-DM-Cain Steam

200kW

Description

Type of prime mover	Number of prime mover units	Synchronous or Inverter	Type	Black-Start Capable	Qualification Status
Microturbine	1	Inverter	CHP Steam	Yes	Conditionally qualified

Performance

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	Steam @ 5 psig Operating			NOx lbs/MWh
					MBtu/h	Water Inlet Temperature °F	Net System Efficiency % (HHV)	
100%	59°F	2287	190	28%	678	212	58%	0.40
	95°F	2140	168	27%	755	212	62%	0.40
75%	59°F							0.40
	95°F							0.40
50%	59°F							0.40
	95°F							0.40

Notes: 1 – All performance data based on fuel energy content of 1000 Btu/CF HHV

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*	20'-10"	20'-10"	9'-2"	12,700
Core system based on minimum width*	20'-10"	20'-10"	9'-2"	
Heat Rejection subsystem*	N/A	N/A	N/A	
Largest part for delivery	5'-6"	12'	8'-3"	8,000
Heaviest part for delivery	5'-6"	12'	8'-3"	8,000

*Includes maintenance clearances.

Vendor Information

RSP Systems 528 Craven Street Bronx, NY 10474 718- 991-6999 sales@cogennyc.com www.rsp-systems.com

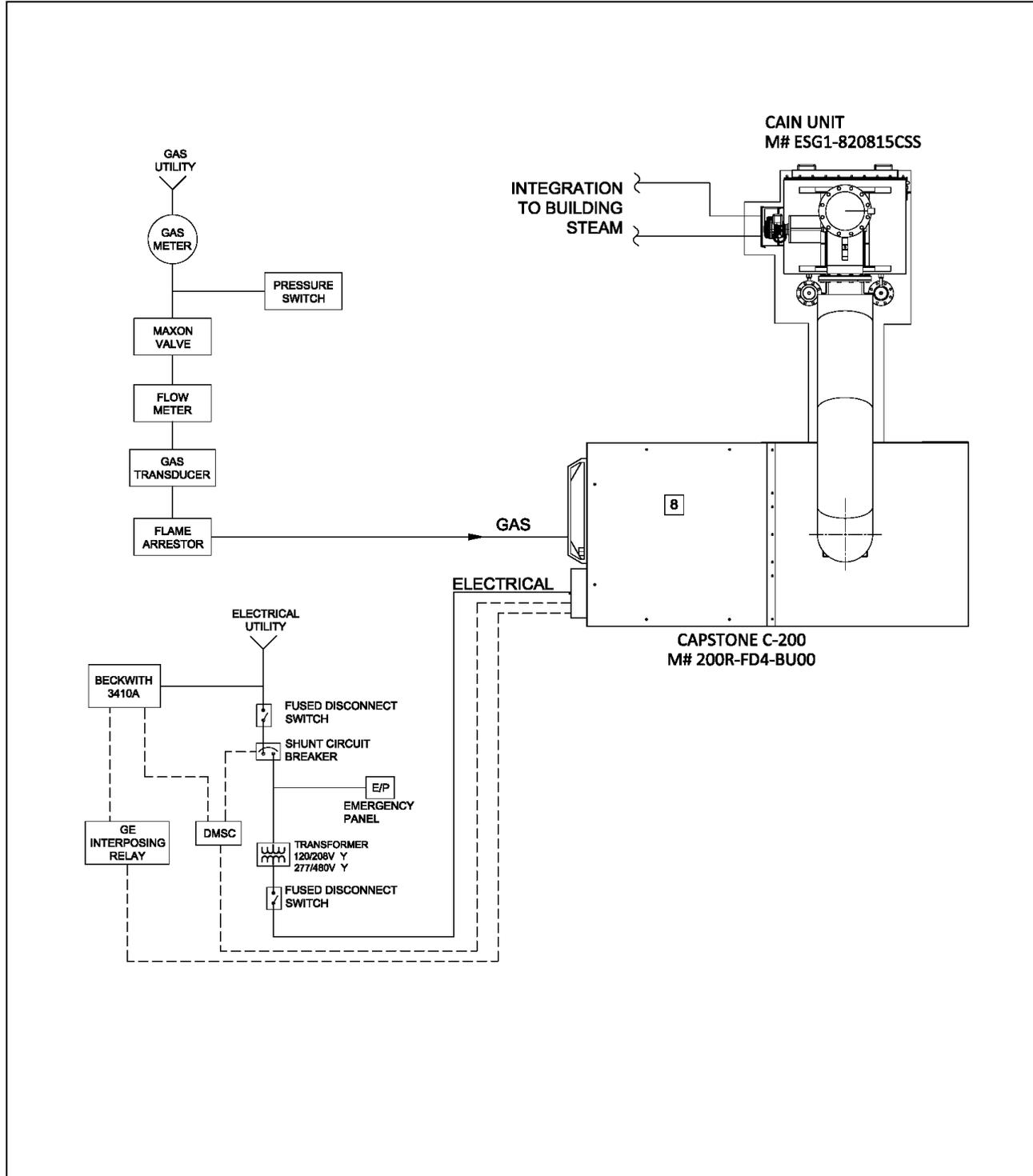
Vendor Statement

- ◆ Achieve ultra-low emissions and reliable electrical/thermal generation from natural gas.
- ◆ One moving part minimal maintenance and downtime.
- ◆ Patented air bearing requires no lubricating oil or coolant in our design.
- ◆ 9 year bumper to bumper factory protection plan with remote monitoring and data mining dashboard.
- ◆ Integrated utility synchronization and protection: inverter based.
- ◆ The unit is small with a modular design allowing for easy installation.
- ◆ Reliable, with tens of millions of run hours and counting.
- ◆ The boiler that makes electricity and provides back up power.

RSP Systems

C200-DM-Cain Steam

200kW





RSP Systems
Description

C200-DM-Cain CCHP

200 kW

Type of prime mover	Number of prime mover units	Synchronous or Inverter	Type	Black-Start Capable	Qualification Status
Microturbine	1	Inverter	CCHP	Yes	Conditionally qualified

Performance - Heating Mode

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	Hot Water to Building @ 180°F			NOx lbs/MWh
					MBtu/h	Return °F	Net System Efficiency % (HHV)	
100%	59°F	2287	190	28%	811	170	64%	0.40
	95°F	2140	168	27%	856	170	67%	0.40
75%	59°F							
	95°F							
50%	59°F							
	95°F							

¹ All performance data based on fuel energy content of 1000 Btu/CF HHV

Performance – Cooling Mode

Ambient DB/WB	Fuel in MBtu/h (HHV)	Net Prime Mover kW	Prime Mover Hot Water Supply to Chiller			Chiller			Chiller Cooling Tower Water		
			MBtu/h	Supply °F	Return °F	Capacity ² tons	Coefficient of Performance	Parasitic kW	gpm	Supply °F	Return °F
95/78°F	2140	168	811	195	185	50	0.7	1	405	85	95

² Using heat from the prime mover. 45 °F chilled water output.

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*	26'-10"	20'-10"	8'-3"	16,200
Core system based on minimum width*	26'-10"	20'-10"	8'-3"	
PM Heat Rejection subsystem*	N/A	N/A	N/A	
Chiller Cooling Tower*	5'-6"	12'	8'-3"	8,000
Largest part for delivery	5'-6"	12'	8'-3"	8,000
Heaviest part for delivery	26'-10"	20'-10"	8'-3"	16,200

*Includes maintenance clearances.

Vendor Information

RSP Systems 528 Craven Street Bronx, NY 10474 718- 991-6999 sales@cogennyc.com www.rsp-systems.com

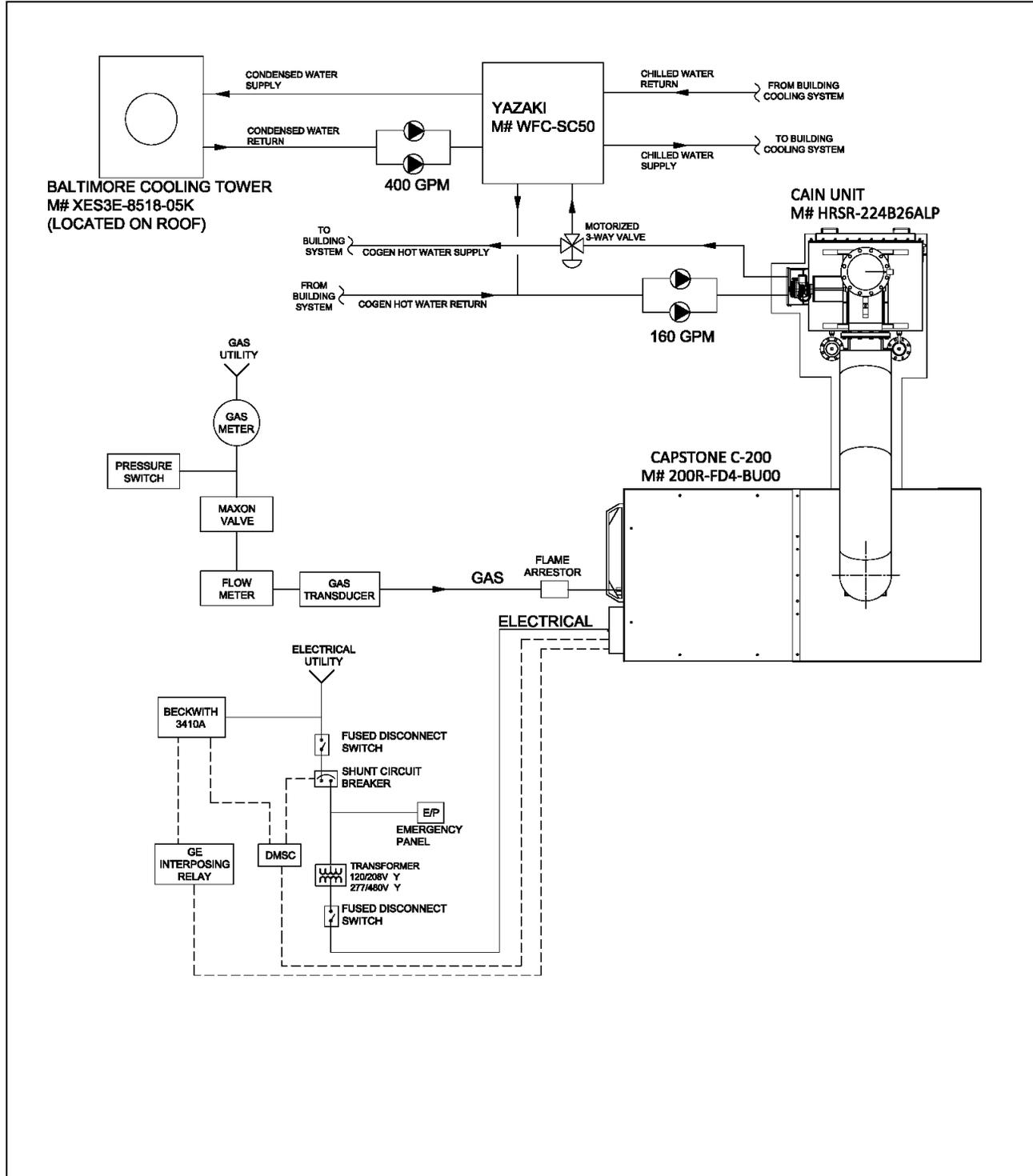
Vendor Statement

- ◆ Achieve ultra-low emissions and reliable electrical/thermal generation from natural gas.
- ◆ One moving part minimal maintenance and downtime.
- ◆ Patented air bearing requires no lubricating oil or coolant in our design.
- ◆ 9 year bumper to bumper factory protection plan with remote monitoring and data mining dashboard.
- ◆ Integrated utility synchronization and protection: inverter based.
- ◆ The unit is small with a modular design allowing for easy installation.
- ◆ Reliable, with tens of millions of run hours and counting.
- ◆ The boiler that makes electricity and provides back up power.

RSP Systems

C200-DM-Cain CCHP

200 kW





RSP Systems

260-DM-iCHP

260kW

Description

Type of prime mover	Number of prime mover units	Synchronous or Inverter	Type	Black-Start Capable	Qualification Status
Microturbine	4	Inverter	CHP-HW	Yes	Conditionally qualified

Performance

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	Hot Water to Building @ 180°F			NOx lbs/MWh
					MBtu/h	Return °F	Net System Efficiency % (HHV)	
100%	59°F	3366	244	25%	1552	169	71%	0.46
	95°F	3106	204	22%	1492	169	70%	0.46
75%	59°F	2488	180	25%	1160	169	71%	0.46
	95°F	2412	164	23%	1020	169	66%	0.46
50%	59°F	1828	116	22%	880	169	70%	0.46
	95°F	1724	96	19%	744	169	62%	0.46

Notes: 1 – All performance data based on fuel energy content of 1000 Btu/CF HHV

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*	14'	31'	7'-10"	14,000
Core system based on minimum width*	14'	31'	7'-10"	
Heat Rejection subsystem*	N/A	N/A	N/A	
Largest part for delivery	30"	77"	83"	2,200
Heaviest part for delivery	30"	77"	83"	2,200

*Includes maintenance clearances.

Vendor Information

RSP Systems 528 Craven Street Bronx, NY 10474 718- 991-6999 sales@cogennyc.com www.rsp-systems.com

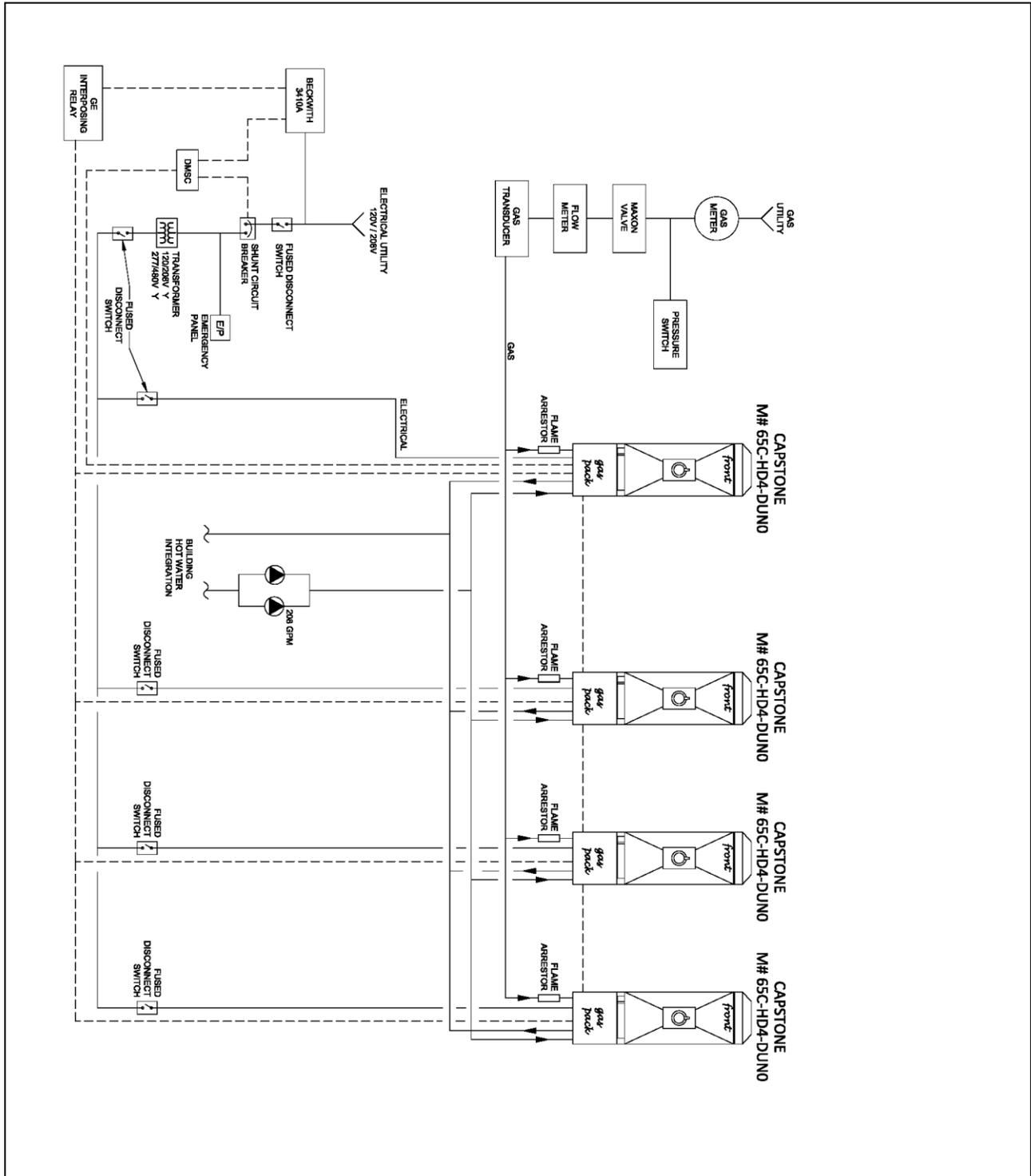
Vendor Statement

- ◆ Achieve ultra-low emissions and reliable electrical/thermal generation from natural gas.
- ◆ One moving part minimal maintenance and downtime.
- ◆ Patented air bearing requires no lubricating oil or coolant in our design.
- ◆ 9 year bumper to bumper factory protection plan with remote monitoring and data mining dashboard.
- ◆ Integrated utility synchronization and protection: inverter based.
- ◆ The unit is small with a modular design allowing for easy installation.
- ◆ Reliable, with tens of millions of run hours and counting.
- ◆ The boiler that makes electricity and provides back up power.

RSP Systems

260-DM-iCHP

260kW





RSP Systems

260-DM-iCHP-CCHP

260kW

Description

Type of prime mover	Number of prime mover units	Synchronous or Inverter	Type	Black-Start Capable	Qualification Status
Microturbine	4	Inverter	CCHP	Yes	Conditionally qualified

Performance - Heating Mode

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	Hot Water to Building @ 180°F			NOx lbs/MWh
					MBtu/h	Return °F	Net System Efficiency % (HHV)	
100%	59°F	3366	244	25%	1552	169	71%	0.46
	95°F	3106	204	22%	1492	169	70%	0.46
75%	59°F	2488	180	25%	1160	169	71%	0.46
	95°F	2412	164	23%	1020	169	66%	0.46
50%	59°F	1828	116	22%	880	169	70%	0.46
	95°F	1724	96	19%	744	169	62%	0.46

¹ All performance data based on fuel energy content of 1000 Btu/CF HHV

Performance – Cooling Mode

Ambient DB/WB	Fuel in MBtu/h (HHV)	Net Prime Mover kW	Prime Mover Hot Water Supply to Chiller			Chiller			Chiller Cooling Tower Water		
			MBtu/h	Supply °F	Return °F	Capacity ² tons	Coefficient of Performance	Parasitic kW	gpm	Supply °F	Return °F
95/78°F	3106	204	1492	195	180	60	0.7	1	485	85	95

² Using heat from the prime mover. 45 °F chilled water output.

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*	24'	31'	7'-10"	22,000
Core system based on minimum width*	24'	31'	7'-10"	
PM Heat Rejection subsystem*	N/A	N/A	N/A	
Chiller Cooling Tower*	2'-6"	8'-6"	7'-8"	2,200
Largest part for delivery	4'-6"	5'	6'-8"	3,200
Heaviest part for delivery	24'	31'	7'-10"	22,000

*Includes maintenance clearances.

Vendor Information

RSP Systems 528 Craven Street Bronx, NY 10474 718- 991-6999 sales@cogennyc.com www.rsp-systems.com

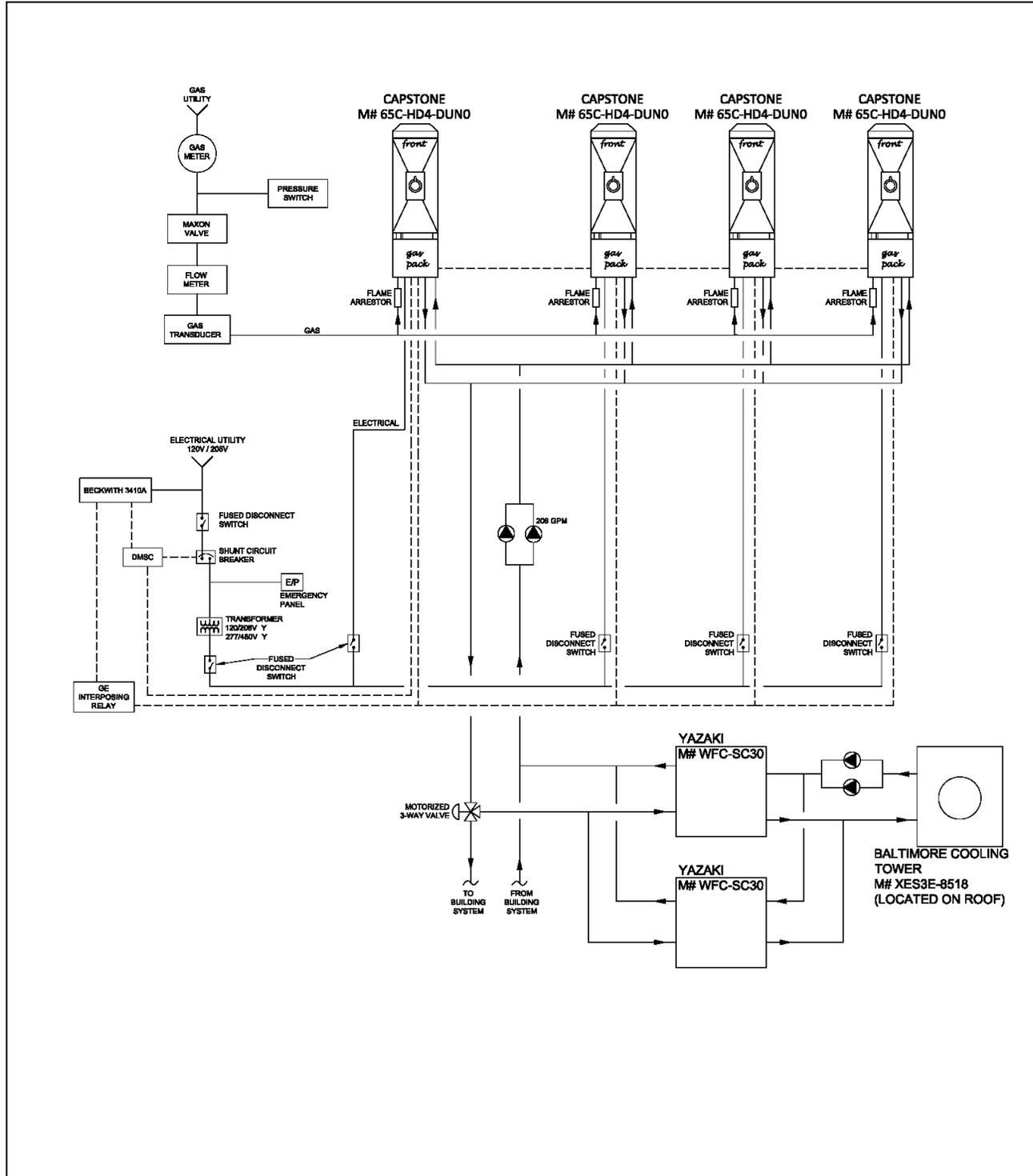
Vendor Statement

- ◆ Achieve ultra-low emissions and reliable electrical/thermal generation from natural gas.
- ◆ One moving part minimal maintenance and downtime.
- ◆ Patented air bearing requires no lubricating oil or coolant in our design.
- ◆ 9 year bumper to bumper factory protection plan with remote monitoring and data mining dashboard.
- ◆ Integrated utility synchronization and protection: inverter based.
- ◆ The unit is small with a modular design allowing for easy installation.
- ◆ Reliable, with tens of millions of run hours and counting.
- ◆ The boiler that makes electricity and provides back up power.

RSP Systems

260-DM-iCHP-CCHP

260kW





RSP Systems

C325-DM-iCHP

325kW

Description

Type of prime mover	Number of prime mover units	Synchronous or Inverter	Type	Black-Start Capable	Qualification Status
Microturbine	5	Inverter	CHP-HW	Yes	Conditionally qualified

Performance

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	Hot Water to Building @ 180°F			NOx lbs/MWh
					MBtu/h	Return °F	Net System Efficiency % (HHV)	
100%	59°F	4208	305	25%	1940	169	71%	0.46
	95°F	3883	255	22%	1865	169	70%	0.46
75%	59°F	3110	225	25%	1450	169	71%	0.46
	95°F	3015	205	23%	1275	169	66%	0.46
50%	59°F	2285	145	22%	1100	169	70%	0.46
	95°F	2155	120	19%	930	169	62%	0.46

Notes: 1 – All performance data based on fuel energy content of 1000 Btu/CF HHV

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*	19'	31'	7'-10"	17,500
Core system based on minimum width*	19'	31'	7'-10"	
Heat Rejection subsystem*	N/A	N/A	N/A	
Largest part for delivery	30"	77"	83"	2,200
Heaviest part for delivery	30"	77"	83"	2,200

*Includes maintenance clearances.

Vendor Information

RSP Systems 528 Craven Street Bronx, NY 10474 718- 991-6999 sales@cogennyc.com www.rsp-systems.com

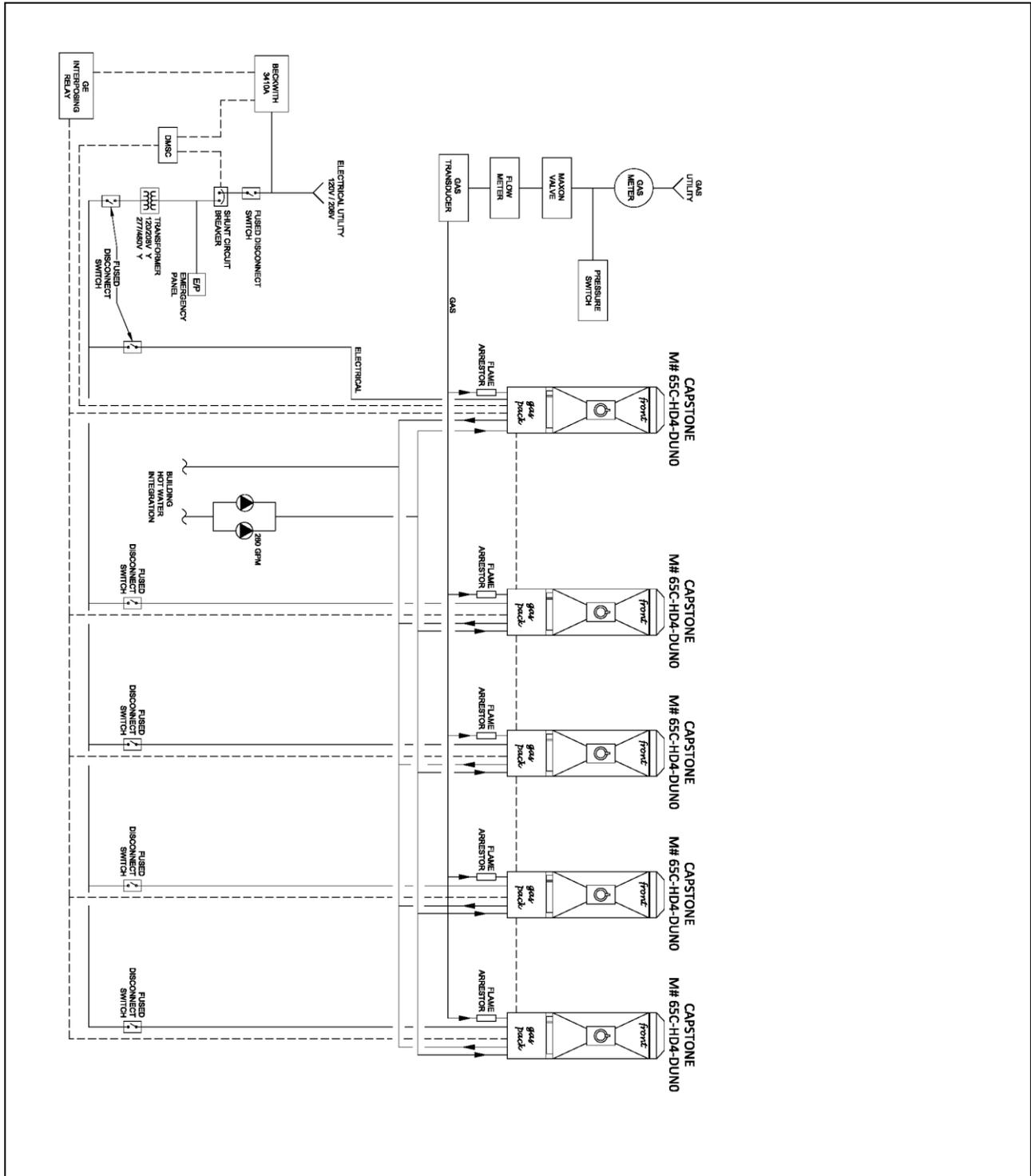
Vendor Statement

- ◆ Achieve ultra-low emissions and reliable electrical/thermal generation from natural gas.
- ◆ One moving part minimal maintenance and downtime.
- ◆ Patented air bearing requires no lubricating oil or coolant in our design.
- ◆ 9 year bumper to bumper factory protection plan with remote monitoring and data mining dashboard.
- ◆ Integrated utility synchronization and protection: inverter based.
- ◆ The unit is small with a modular design allowing for easy installation.
- ◆ Reliable, with tens of millions of run hours and counting.
- ◆ The boiler that makes electricity and provides back up power.

RSP Systems

C325-DM-iCHP

325kW





RSP Systems

325-DM-iCHP-CCHP

325kW

Description

Type of prime mover	Number of prime mover units	Synchronous or Inverter	Type	Black-Start Capable	Qualification Status
Microturbine	5	Inverter	CCHP	Yes	Conditionally qualified

Performance - Heating Mode

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	Hot Water to Building @ 180°F			NOx lbs/MWh
					MBtu/h	Return °F	Net System Efficiency % (HHV)	
100%	59°F	4208	305	25%	1940	169	71%	0.46
	95°F	3883	255	22%	1865	169	70%	0.46
75%	59°F	3110	225	25%	1450	169	71%	0.46
	95°F	3015	205	23%	1275	169	66%	0.46
50%	59°F	2285	145	22%	1100	169	70%	0.46
	95°F	2155	120	19%	930	169	62%	0.46

¹ All performance data based on fuel energy content of 1000 Btu/CF HHV

Performance – Cooling Mode

Ambient DB/WB	Fuel in MBtu/h (HHV)	Net Prime Mover kW	Prime Mover Hot Water Supply to Chiller			Chiller			Chiller Cooling Tower Water		
			MBtu/h	Supply °F	Return °F	Capacity ² tons	Coefficient of Performance	Parasitic kW	gpm	Supply °F	Return °F
95/78°F	3883	255	1865	195	180	80	0.7	6	300	85	95

² Using heat from the prime mover. 45 °F chilled water output.

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*	23'-5"	31'	7'-10"	30,160
Core system based on minimum width*	23'-5"	31'	7'-10"	
PM Heat Rejection subsystem*	N/A	N/A	N/A	
Chiller Cooling Tower*	4'-5"	14'-5"	83"	9,650
Largest part for delivery	4'-5"	14'-5"	83"	9,650
Heaviest part for delivery	23'-5"	31'	7'-10"	30,160

*Includes maintenance clearances.

Vendor Information

RSP Systems 528 Craven Street Bronx, NY 10474 718- 991-6999 sales@cogennyc.com www.rsp-systems.com

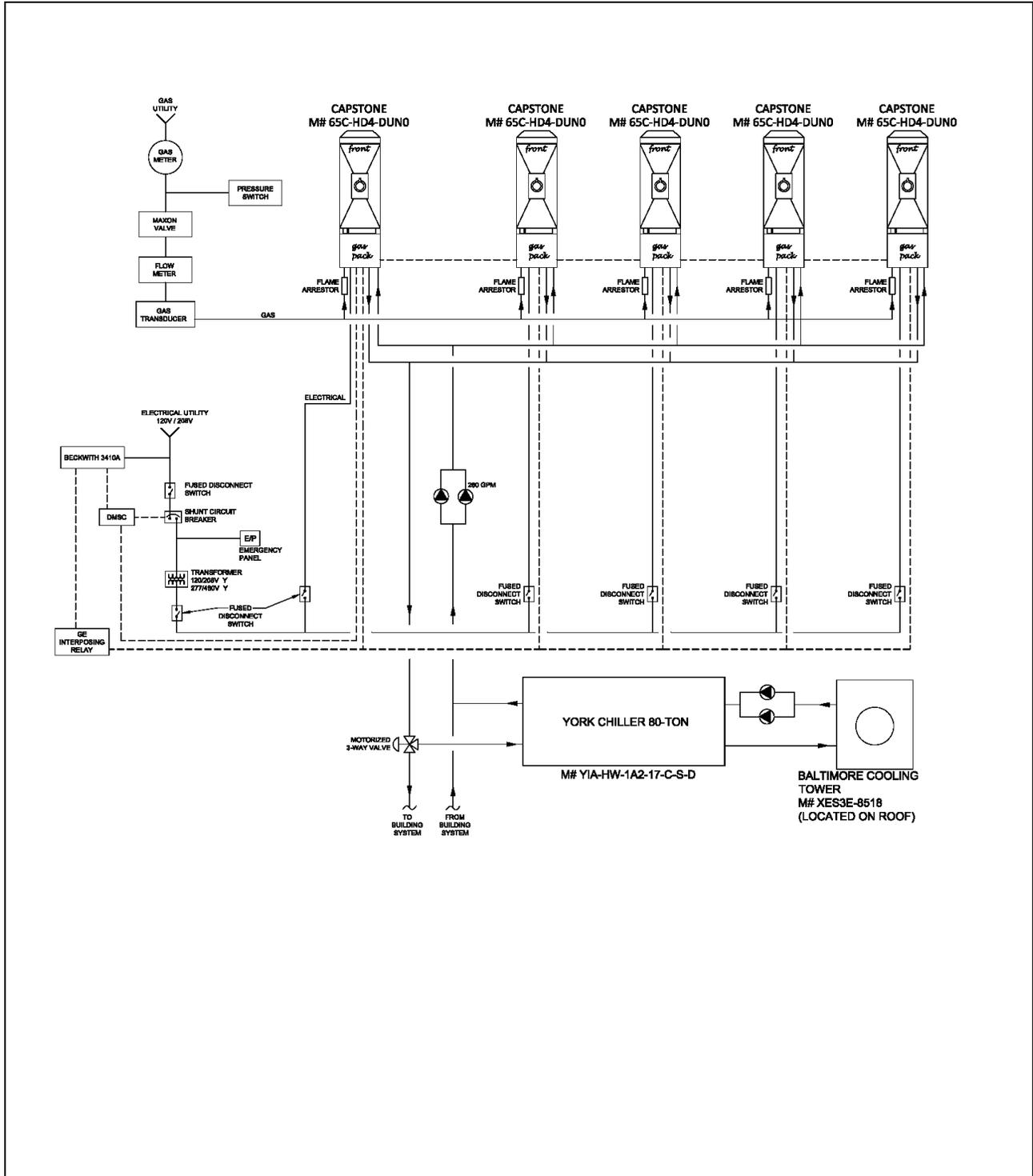
Vendor Statement

- ◆ Achieve ultra-low emissions and reliable electrical/thermal generation from natural gas.
- ◆ One moving part minimal maintenance and downtime.
- ◆ Patented air bearing requires no lubricating oil or coolant in our design.
- ◆ 9 year bumper to bumper factory protection plan with remote monitoring and data mining dashboard.
- ◆ Integrated utility synchronization and protection: inverter based.
- ◆ The unit is small with a modular design allowing for easy installation.
- ◆ Reliable, with tens of millions of run hours and counting.
- ◆ The boiler that makes electricity and provides back up power.

RSP Systems

325-DM-iCHP-CCHP

325kW





RSP Systems

390-DM-iCHP

390kW

Description

Type of prime mover	Number of prime mover units	Synchronous or Inverter	Type	Black-Start Capable	Qualification Status
Microturbine	6	Inverter	CHP-HW	Yes	Conditionally qualified

Performance

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	Hot Water to Building @ 180°F			NOx lbs/MWh
					MBtu/h	Return °F	Net System Efficiency % (HHV)	
100%	59°F	5049	366	25%	2328	169	71%	0.46
	95°F	4660	306	22%	2238	169	70%	0.46
75%	59°F	3732	270	25%	1740	169	71%	0.46
	95°F	3618	246	23%	1530	169	66%	0.46
50%	59°F	2742	174	22%	1320	169	70%	0.46
	95°F	2586	144	19%	1116	169	62%	0.46

Notes: 1 – All performance data based on fuel energy content of 1000 Btu/CF HHV

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*	19'	31'	7'-10"	21,000
Core system based on minimum width*	19'	31'	7'-10"	
Heat Rejection subsystem*	N/A	N/A	N/A	
Largest part for delivery	30"	77"	83"	2,200
Heaviest part for delivery	30"	77"	83"	2,200

*Includes maintenance clearances.

Vendor Information

RSP Systems 528 Craven Street Bronx, NY 10474 718- 991-6999 sales@cogennyc.com www.rsp-systems.com

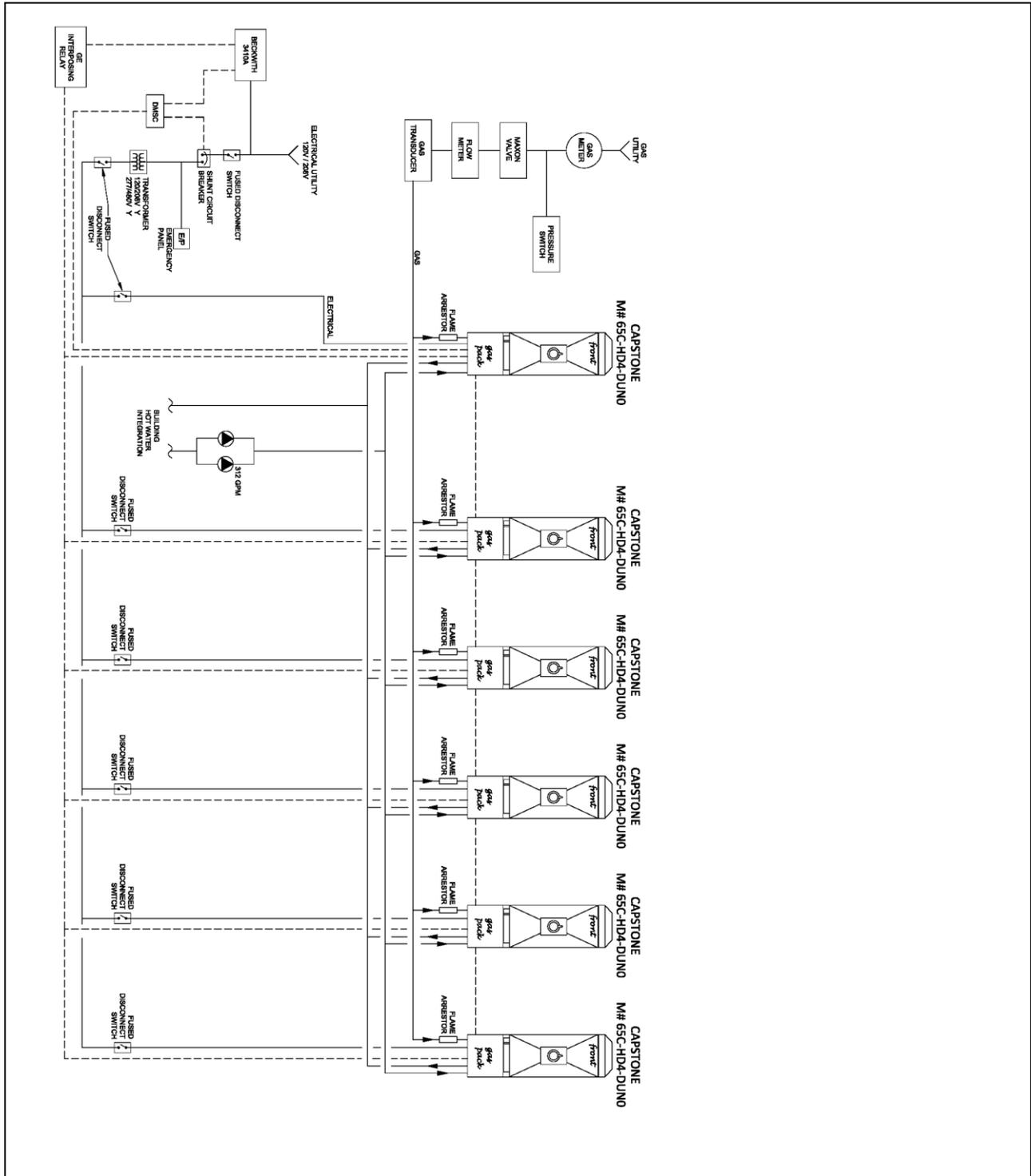
Vendor Statement

- ◆ Achieve ultra-low emissions and reliable electrical/thermal generation from natural gas.
- ◆ One moving part minimal maintenance and downtime.
- ◆ Patented air bearing requires no lubricating oil or coolant in our design.
- ◆ 9 year bumper to bumper factory protection plan with remote monitoring and data mining dashboard.
- ◆ Integrated utility synchronization and protection: inverter based.
- ◆ The unit is small with a modular design allowing for easy installation.
- ◆ Reliable, with tens of millions of run hours and counting.
- ◆ The boiler that makes electricity and provides back up power.

RSP Systems

390-DM-iCHP

390kW





RSP Systems

390-DM-iCHP-CCHP

390kW

Description

Type of prime mover	Number of prime mover units	Synchronous or Inverter	Type	Black-Start Capable	Qualification Status
Microturbine	6	Inverter	CCHP	Yes	Conditionally qualified

Performance - Heating Mode

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	Hot Water to Building @ 180°F			NOx lbs/MWh
					MBtu/h	Return °F	Net System Efficiency % (HHV)	
100%	59°F	5049	366	25%	2328	169	71%	0.46
	95°F	4660	306	22%	2238	169	70%	0.46
75%	59°F	3732	270	25%	1740	169	71%	0.46
	95°F	3618	246	23%	1530	169	66%	0.46
50%	59°F	2742	174	22%	1320	169	70%	0.46
	95°F	2586	144	19%	1116	169	62%	0.46

¹ All performance data based on fuel energy content of 1000 Btu/CF HHV

Performance – Cooling Mode

Ambient DB/WB	Fuel in MBtu/h (HHV)	Net Prime Mover kW	Prime Mover Hot Water Supply to Chiller			Chiller			Chiller Cooling Tower Water		
			MBtu/h	Supply °F	Return °F	Capacity ² tons	Coefficient of Performance	Parasitic kW	gpm	Supply °F	Return °F
95/78°F	4660	306	2238	210	195	96	0.7	6	400	85	95

² Using heat from the prime mover. 45 °F chilled water output.

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*	19'	31'	7'-10"	35,000
Core system based on minimum width*	19'	31'	7'-10"	
PM Heat Rejection subsystem*	N/A	N/A	N/A	
Chiller Cooling Tower*	4'-5"	25'-6"	93"	10,620
Largest part for delivery	4'-5"	25'-6"	93"	10,620
Heaviest part for delivery	19'	31'	7'-10"	35,000

*Includes maintenance clearances.

Vendor Information

RSP Systems 528 Craven Street Bronx, NY 10474 718- 991-6999 sales@cogennyc.com www.rsp-systems.com

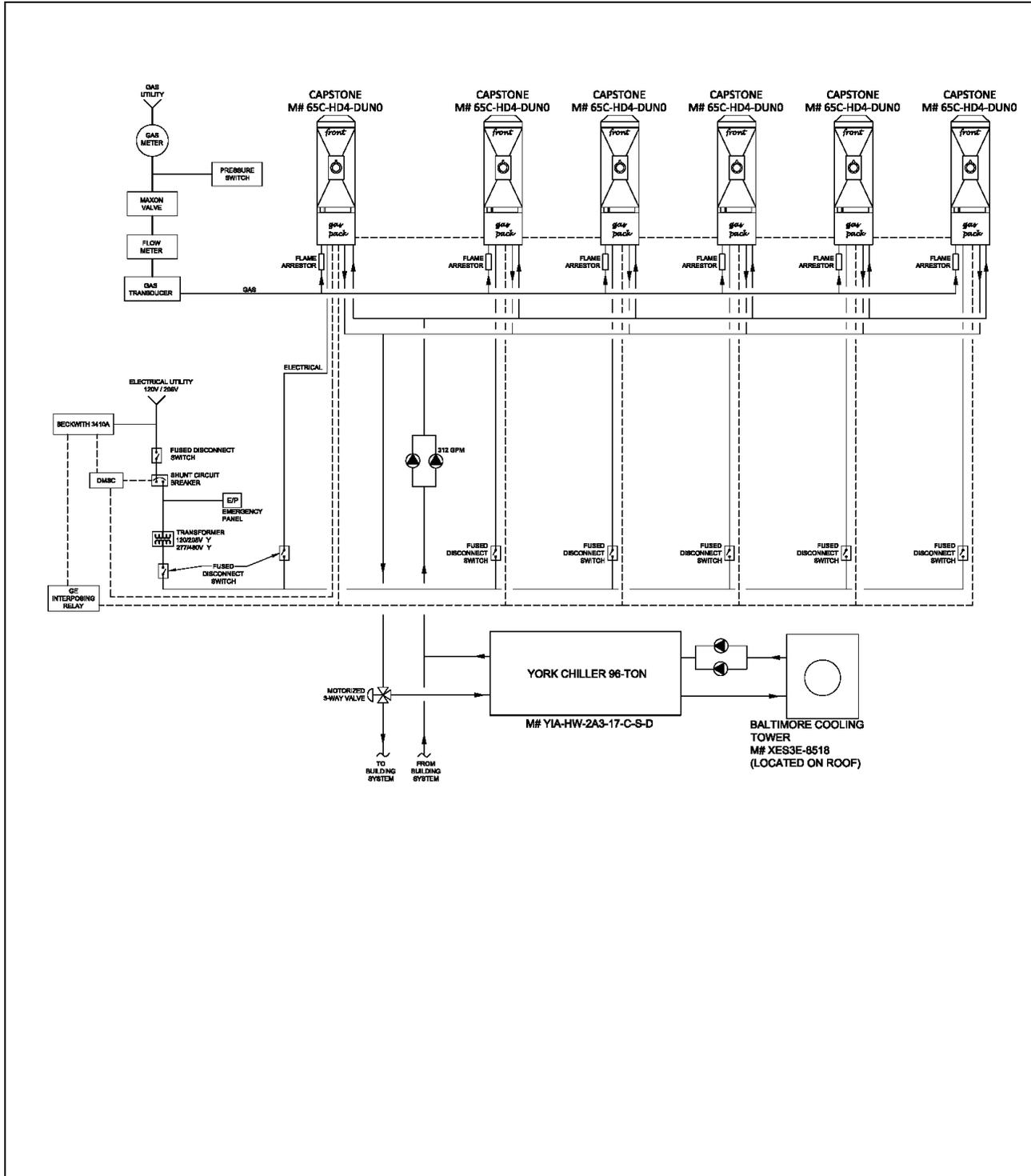
Vendor Statement

- ◆ Achieve ultra-low emissions and reliable electrical/thermal generation from natural gas.
- ◆ One moving part minimal maintenance and downtime.
- ◆ Patented air bearing requires no lubricating oil or coolant in our design.
- ◆ 9 year bumper to bumper factory protection plan with remote monitoring and data mining dashboard.
- ◆ Integrated utility synchronization and protection: inverter based.
- ◆ The unit is small with a modular design allowing for easy installation.
- ◆ Reliable, with tens of millions of run hours and counting.
- ◆ The boiler that makes electricity and provides back up power.

RSP Systems

390-DM-iCHP-CCHP

390kW





RSP Systems

C400-DM-Cain HW

400kW

Description

Type of prime mover	Number of prime mover units	Synchronous or Inverter	Type	Black-Start Capable	Qualification Status
Microturbine	2	Inverter	CHP-HW	Yes	Conditionally qualified

Performance

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	Hot Water to Building @ 180°F			NOx lbs/MWh
					MBtu/h	Return °F	Net System Efficiency % (HHV)	
100%	59°F	4574	380	28%	1622	170	64%	0.40
	95°F	4280	336	27%	1442	170	61%	0.40
75%	59°F							
	95°F							
50%	59°F							
	95°F							

Notes: 1 – All performance data based on fuel energy content of 1000 Btu/CF HHV

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*	26'-5"	20'-10"	8'-10"	19,520
Core system based on minimum width*	26'-5"	20'-10"	8'-10"	
Heat Rejection subsystem*	N/A	N/A	N/A	
Largest part for delivery	5'-6"	12'	8'-3"	8,000
Heaviest part for delivery	5'-6"	12'	8'-3"	8,000

*Includes maintenance clearances.

Vendor Information

RSP Systems 528 Craven Street Bronx, NY 10474 718- 991-6999 sales@cogennyc.com www.rsp-systems.com

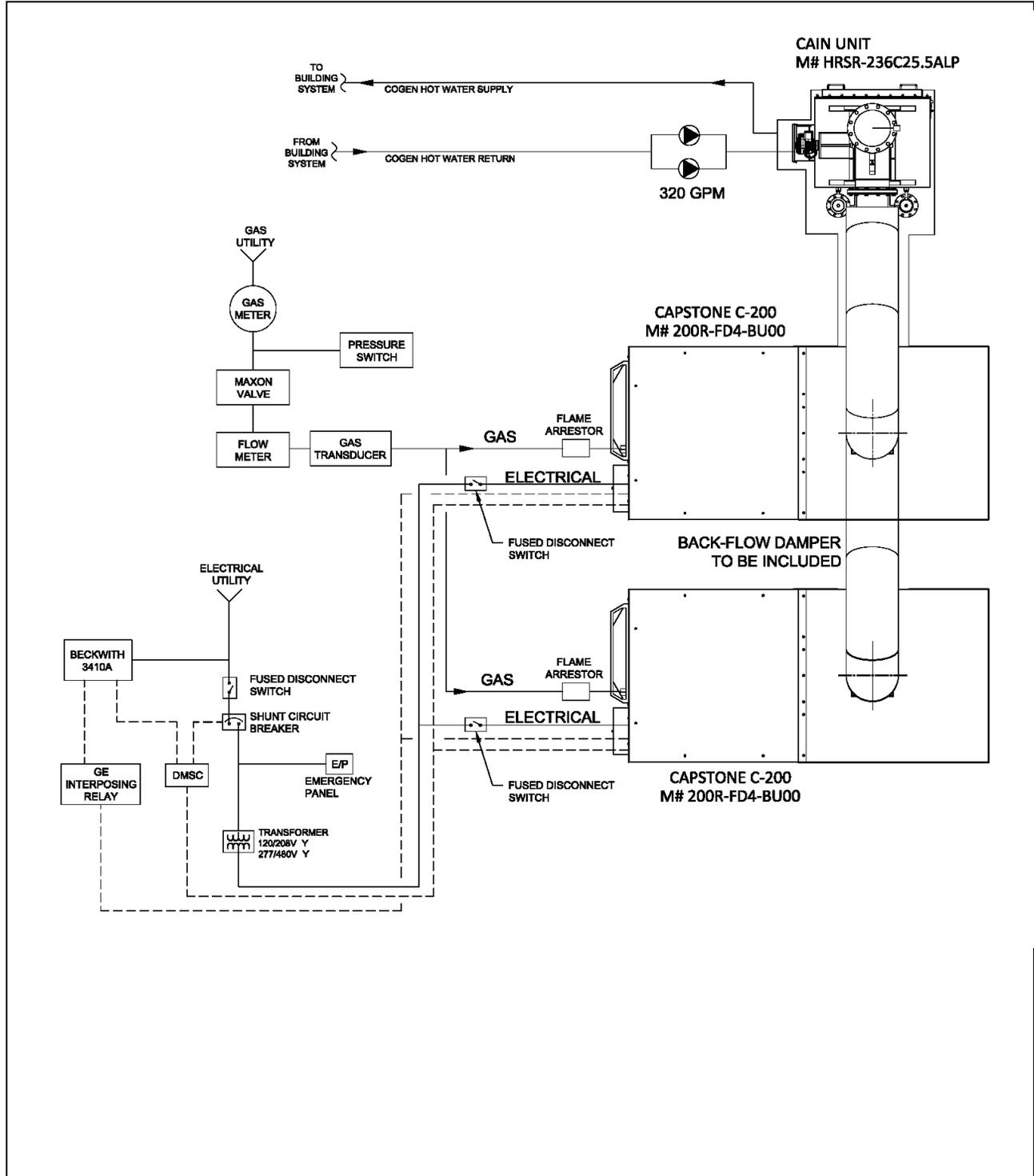
Vendor Statement

- ◆ Achieve ultra-low emissions and reliable electrical/thermal generation from natural gas.
- ◆ One moving part minimal maintenance and downtime.
- ◆ Patented air bearing requires no lubricating oil or coolant in our design.
- ◆ 9 year bumper to bumper factory protection plan with remote monitoring and data mining dashboard.
- ◆ Integrated utility synchronization and protection: inverter based.
- ◆ The unit is small with a modular design allowing for easy installation.
- ◆ Reliable, with tens of millions of run hours and counting.
- ◆ The boiler that makes electricity and provides back up power.

RSP Systems

C400-DM-Cain HW

400kW





RSP Systems

C400-DM-Cain Steam

400kW

Description

Type of prime mover	Number of prime mover units	Synchronous or Inverter	Type	Black-Start Capable	Qualification Status
Microturbine	2	Inverter	CHP Steam	Yes	Conditionally qualified

Performance

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	Steam @ 5 psig Operating			NOx lbs/MWh
					MBtu/h	Water Inlet Temperature °F	Net System Efficiency % (HHV)	
100%	59°F	4573	380	28%	1367	212	58%	0.40
	95°F	4280	336	27%	1520	212	62%	0.40
75%	59°F							0.40
	95°F							0.40
50%	59°F							0.40
	95°F							0.40

Notes: 1 – All performance data based on fuel energy content of 1000 Btu/CF HHV

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*	26'-5"	20'-10"	9'-5"	24,000
Core system based on minimum width*	26'-5"	20'-10"	9'-5"	
Heat Rejection subsystem*	N/A	N/A	N/A	
Largest part for delivery	5'-6"	12'	8'-3"	8,000
Heaviest part for delivery	5'-6"	12'	8'-3"	8,000

*Includes maintenance clearances.

Vendor Information

RSP Systems 528 Craven Street Bronx, NY 10474 718- 991-6999 sales@cogennyc.com www.rsp-systems.com

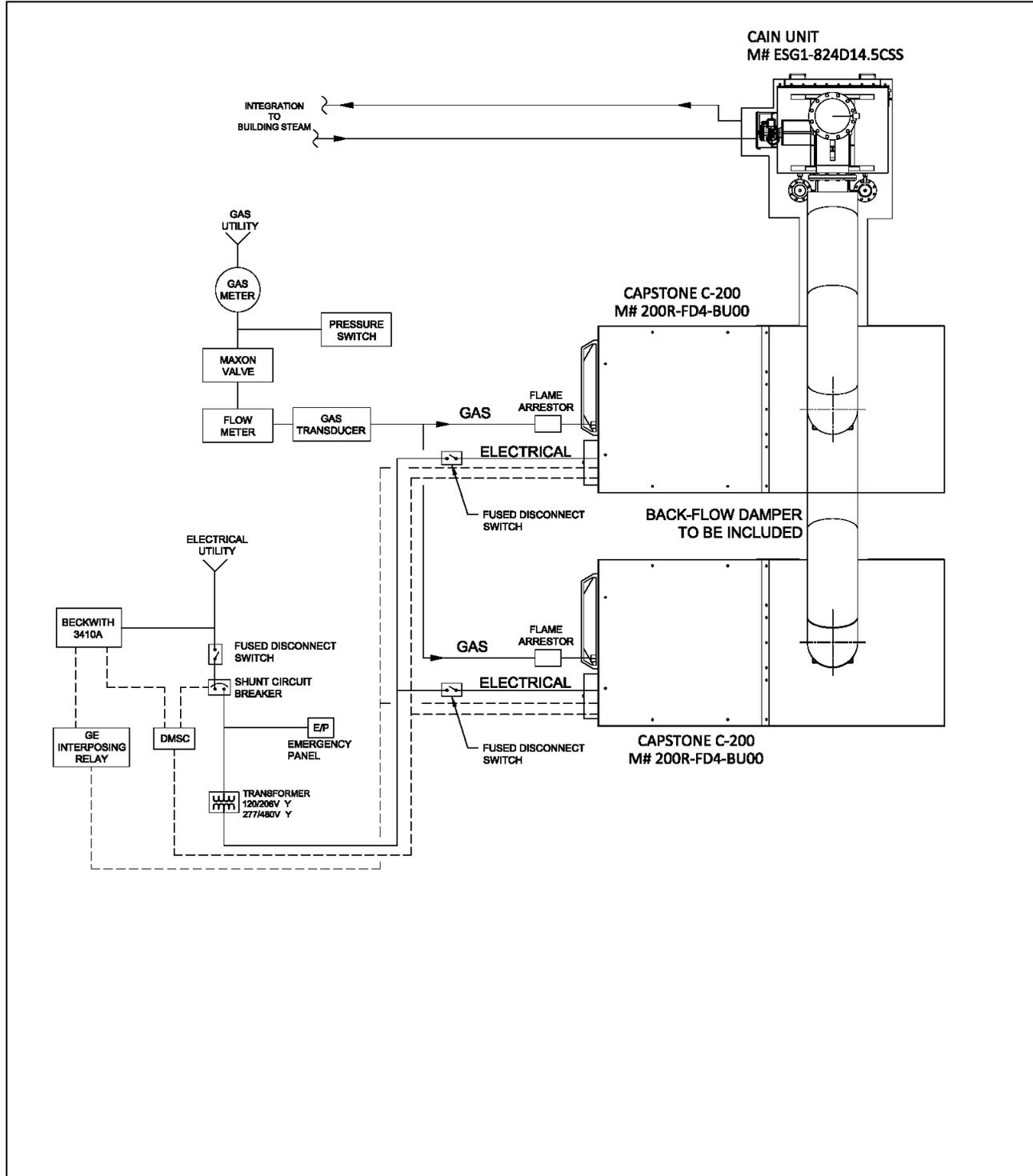
Vendor Statement

- ◆ Achieve ultra-low emissions and reliable electrical/thermal generation from natural gas.
- ◆ One moving part minimal maintenance and downtime.
- ◆ Patented air bearing requires no lubricating oil or coolant in our design.
- ◆ 9 year bumper to bumper factory protection plan with remote monitoring and data mining dashboard.
- ◆ Integrated utility synchronization and protection: inverter based.
- ◆ The unit is small with a modular design allowing for easy installation.
- ◆ Reliable, with tens of millions of run hours and counting.
- ◆ The boiler that makes electricity and provides back up power.

RSP Systems

C400-DM-Cain Steam

400kW





RSP Systems
Description

C400-DM- Cain CCHP

400 kW

Type of prime mover	Number of prime mover units	Synchronous or Inverter	Type	Black-Start Capable	Qualification Status
Microturbine	2	Inverter	CCHP	Yes	Conditionally qualified

Performance - Heating Mode

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	Hot Water to Building @ 180°F			NOx lbs/MWh
					MBtu/h	Return °F	Net System Efficiency % (HHV)	
100%	59°F	4573	380	28%	1498	170	61%	0.40
	95°F	4280	336	27%	1631	170	65%	0.40
75%	59°F							
	95°F							
50%	59°F							
	95°F							

¹ All performance data based on fuel energy content of 1000 Btu/CF HHV

Performance – Cooling Mode

Ambient DB/WB	Fuel in MBtu/h (HHV)	Net Prime Mover kW	Prime Mover Hot Water Supply to Chiller			Chiller			Chiller Cooling Tower Water		
			MBtu/h	Supply °F	Return °F	Capacity ² tons	Coefficient of Performance	Parasitic kW	gpm	Supply °F	Return °F
95/78°F	4280	336	1926	210	200	96	0.7	6	400	85	100

² Using heat from the prime mover. 45 °F chilled water output.

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*	31'	36'	8'-10"	33,500
Core system based on minimum width*	31'	36'	8'-10"	
PM Heat Rejection subsystem*	N/A	N/A	N/A	
Chiller Cooling Tower*	5'	16'-5"	8'-3"	10,600
Largest part for delivery	5'	16'-5"	8'-3"	10,600
Heaviest part for delivery	31'	36'	8'-10"	33,500

*Includes maintenance clearances.

Vendor Information

RSP Systems 528 Craven Street Bronx, NY 10474 718- 991-6999 sales@cogennyc.com www.rsp-systems.com

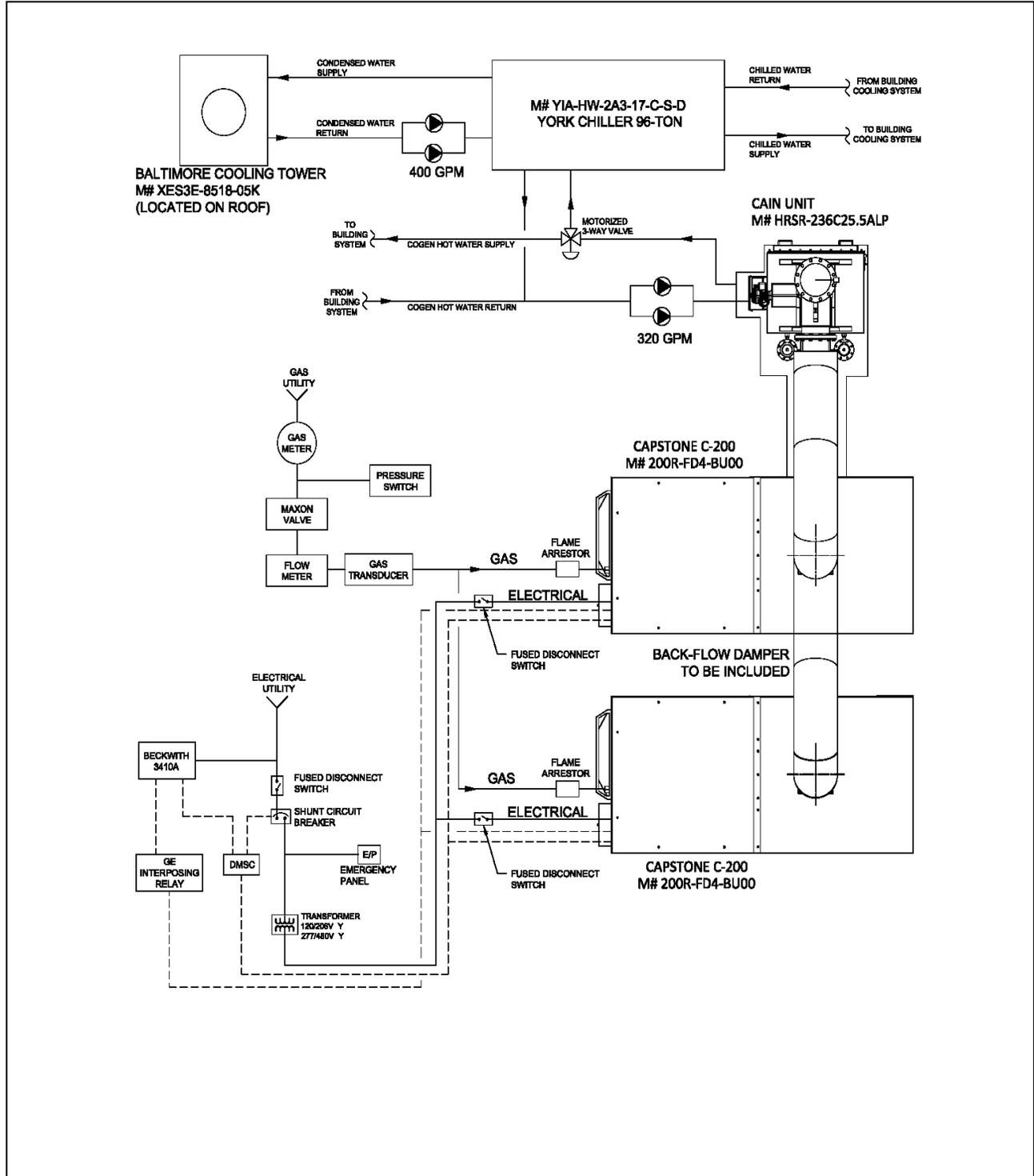
Vendor Statement

- ◆ Achieve ultra-low emissions and reliable electrical/thermal generation from natural gas.
- ◆ One moving part minimal maintenance and downtime.
- ◆ Patented air bearing requires no lubricating oil or coolant in our design.
- ◆ 9 year bumper to bumper factory protection plan with remote monitoring and data mining dashboard.
- ◆ Integrated utility synchronization and protection: inverter based.
- ◆ The unit is small with a modular design allowing for easy installation.
- ◆ Reliable, with tens of millions of run hours and counting.
- ◆ The boiler that makes electricity and provides back up power.

RSP Systems

C400-DM- Cain CCHP

400 kW





RSP Systems

455-DM-iCHP

455kW

Description

Type of prime mover	Number of prime mover units	Synchronous or Inverter	Type	Black-Start Capable	Qualification Status
Microturbine	7	Inverter	CHP-HW	Yes	Conditionally qualified

Performance

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	Hot Water to Building @ 180°F			NOx lbs/MWh
					MBtu/h	Return °F	Net System Efficiency % (HHV)	
100%	59°F	5891	427	25%	2716	169	71%	0.46
	95°F	5436	357	22%	2611	169	70%	0.46
75%	59°F	4354	315	25%	2030	169	71%	0.46
	95°F	4221	287	23%	1785	169	66%	0.46
50%	59°F	3199	203	22%	1540	169	70%	0.46
	95°F	3017	168	19%	1302	169	62%	0.46

Notes: 1 – All performance data based on fuel energy content of 1000 Btu/CF HHV

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*	25'	31'	7'-10"	24,500
Core system based on minimum width*	25'	31'	7'-10"	
Heat Rejection subsystem*	N/A	N/A	N/A	
Largest part for delivery	30"	77"	83"	2,200
Heaviest part for delivery	30"	77"	83"	2,200

*Includes maintenance clearances.

Vendor Information

RSP Systems 528 Craven Street Bronx, NY 10474 718- 991-6999 sales@cogennyc.com www.rsp-systems.com

Vendor Statement

- ◆ Achieve ultra-low emissions and reliable electrical/thermal generation from natural gas.
- ◆ One moving part minimal maintenance and downtime.
- ◆ Patented air bearing requires no lubricating oil or coolant in our design.
- ◆ 9 year bumper to bumper factory protection plan with remote monitoring and data mining dashboard.
- ◆ Integrated utility synchronization and protection: inverter based.
- ◆ The unit is small with a modular design allowing for easy installation.
- ◆ Reliable, with tens of millions of run hours and counting.
- ◆ The boiler that makes electricity and provides back up power.



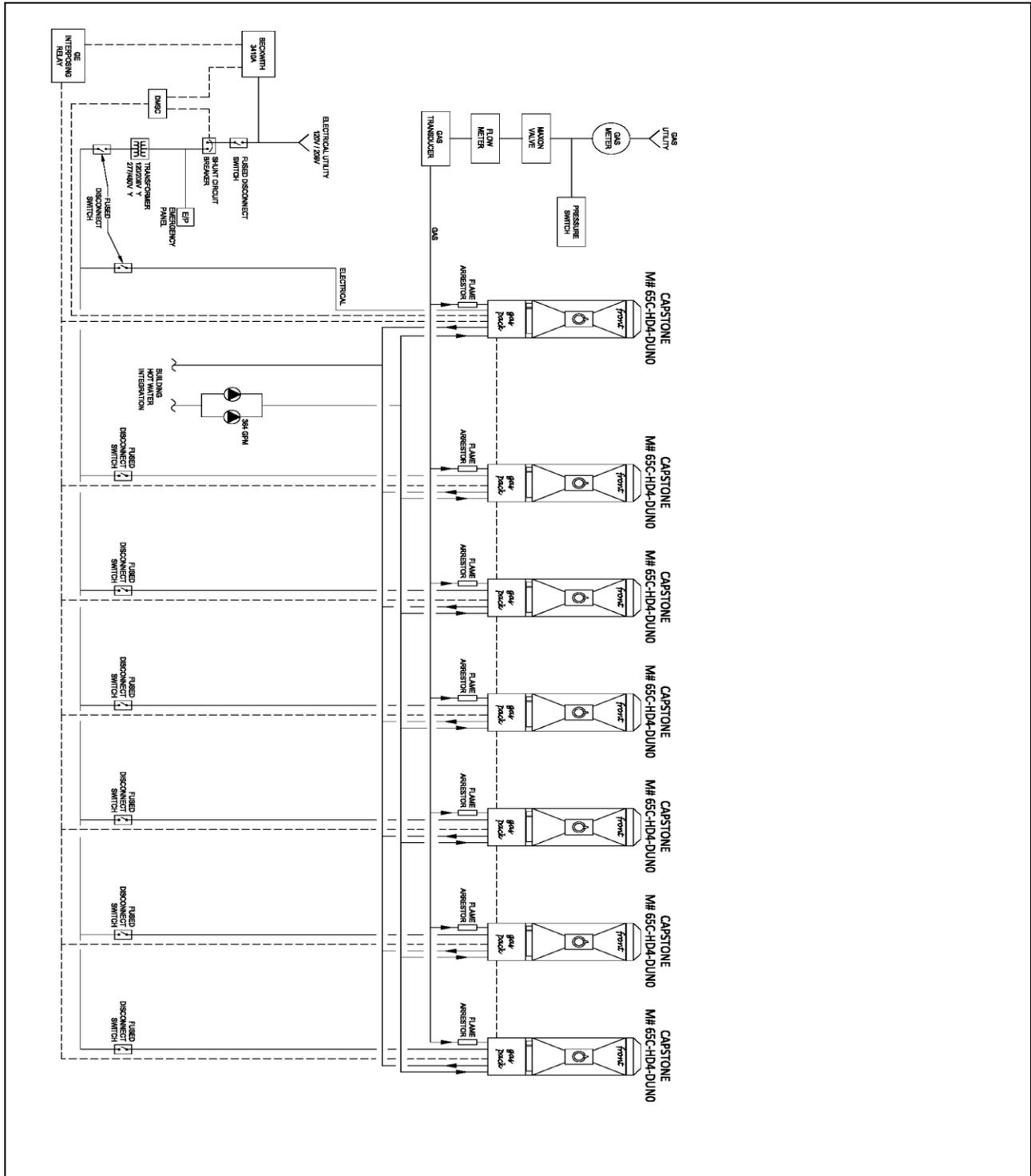
NYSDERDA



RSP Systems

455-DM-iCHP

455kW





RSP Systems

455-DM-iCHP-CCHP

455kW

Description

Type of prime mover	Number of prime mover units	Synchronous or Inverter	Type	Black-Start Capable	Qualification Status
Microturbine	7	Inverter	CCHP	Yes	Conditionally qualified

Performance - Heating Mode

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	Hot Water to Building @ 180°F			NOx lbs/MWh
					MBtu/h	Return °F	Net System Efficiency % (HHV)	
100%	59°F	5891	427	25%	2716	169	71%	0.46
	95°F	5436	357	22%	2611	169	70%	0.46
75%	59°F	4354	315	25%	2030	169	71%	0.46
	95°F	4221	287	23%	1785	169	66%	0.46
50%	59°F	3199	203	22%	1540	169	70%	0.46
	95°F	3017	168	19%	1302	169	62%	0.46

¹ All performance data based on fuel energy content of 1000 Btu/CF HHV

Performance – Cooling Mode

Ambient DB/WB	Fuel in MBtu/h (HHV)	Net Prime Mover kW	Prime Mover Hot Water Supply to Chiller			Chiller			Chiller Cooling Tower Water		
			MBtu/h	Supply °F	Return °F	Capacity ² tons	Coefficient of Performance	Parasitic kW	gpm	Supply °F	Return °F
95/78°F	5436	359	2436	210	200	112	0.7	6	500	85	98

² Using heat from the prime mover. 45 °F chilled water output.

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*	25'	31'	7'-10"	38,500
Core system based on minimum width*	25'	31'	7'-10"	
PM Heat Rejection subsystem*	N/A	N/A	N/A	
Chiller Cooling Tower*	4'-5"	25'-6"	7'-8"	10,620
Largest part for delivery	4'-5"	25'-6"	7'-8"	10,620
Heaviest part for delivery	25'	31'	7'-10"	38,500

*Includes maintenance clearances.

Vendor Information

RSP Systems 528 Craven Street Bronx, NY 10474 718- 991-6999 sales@cogennyc.com www.rsp-systems.com

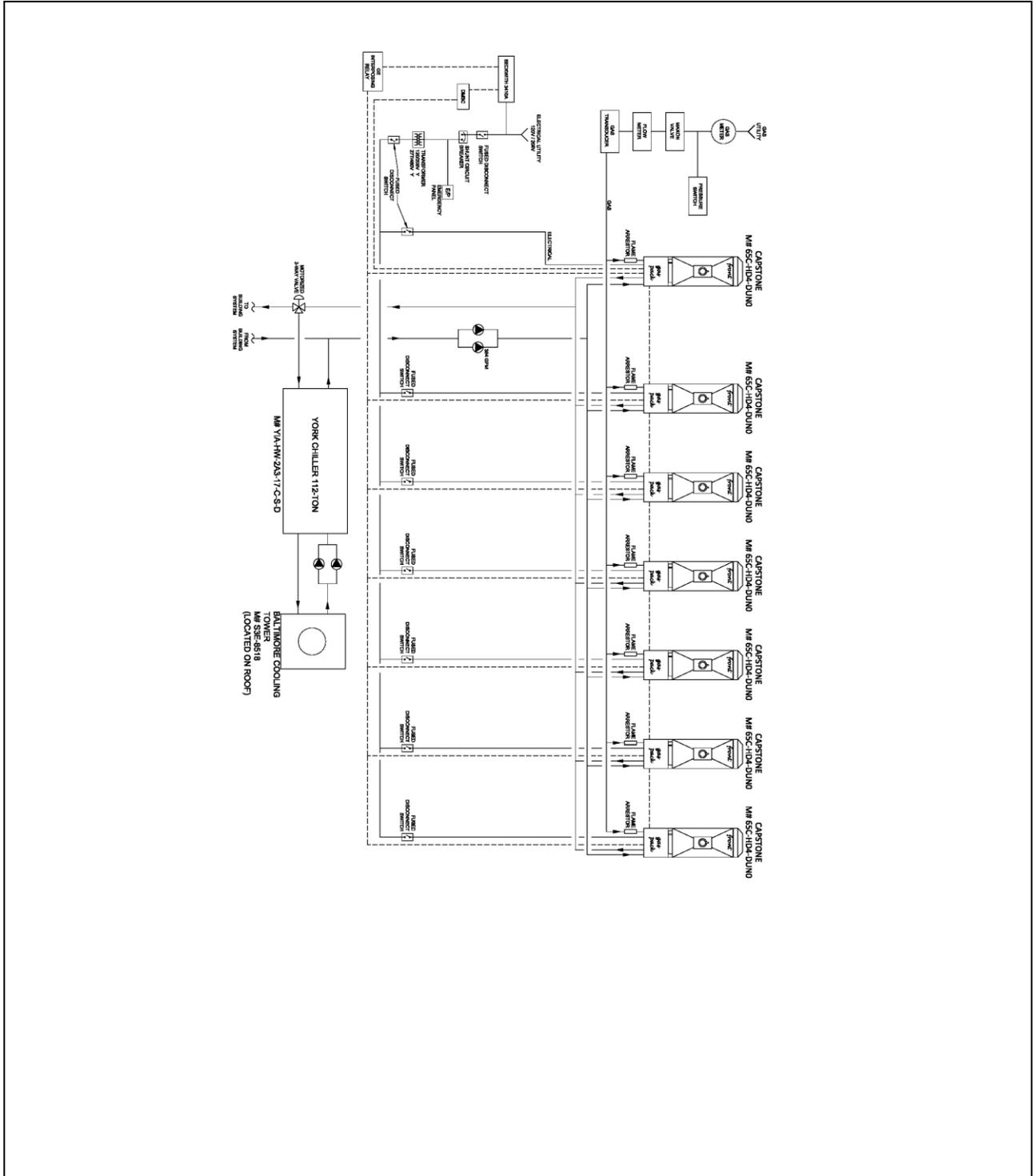
Vendor Statement

- ◆ Achieve ultra-low emissions and reliable electrical/thermal generation from natural gas.
- ◆ One moving part minimal maintenance and downtime.
- ◆ Patented air bearing requires no lubricating oil or coolant in our design.
- ◆ 9 year bumper to bumper factory protection plan with remote monitoring and data mining dashboard.
- ◆ Integrated utility synchronization and protection: inverter based.
- ◆ The unit is small with a modular design allowing for easy installation.
- ◆ Reliable, with tens of millions of run hours and counting.
- ◆ The boiler that makes electricity and provides back up power.

RSP Systems

455-DM-iCHP-CCHP

455kW





RSP Systems

520-DM-iCHP

520kW

Description

Type of prime mover	Number of prime mover units	Synchronous or Inverter	Type	Black-Start Capable	Qualification Status
Microturbine	8	Inverter	CHP-HW	Yes	Conditionally qualified

Performance

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	Hot Water to Building @ 180°F			NOx lbs/MWh
					MBtu/h	Return °F	Net System Efficiency % (HHV)	
100%	59°F	6732	488	25%	3104	169	71%	0.46
	95°F	6213	408	22%	2984	169	70%	0.46
75%	59°F	4976	360	25%	2320	169	71%	0.46
	95°F	4824	328	23%	2040	169	66%	0.46
50%	59°F	3656	232	22%	1760	169	70%	0.46
	95°F	3448	192	19%	1488	169	62%	0.46

Notes: 1 – All performance data based on fuel energy content of 1000 Btu/CF HHV

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*	25'	31'	7'-10"	28,000
Core system based on minimum width*	25'	31'	7'-10"	
Heat Rejection subsystem*	N/A	N/A	N/A	
Largest part for delivery	30"	77"	83"	2,200
Heaviest part for delivery	30"	77"	83"	2,200

*Includes maintenance clearances.

Vendor Information

RSP Systems 528 Craven Street Bronx, NY 10474 718- 991-6999 sales@cogennyc.com www.rsp-systems.com

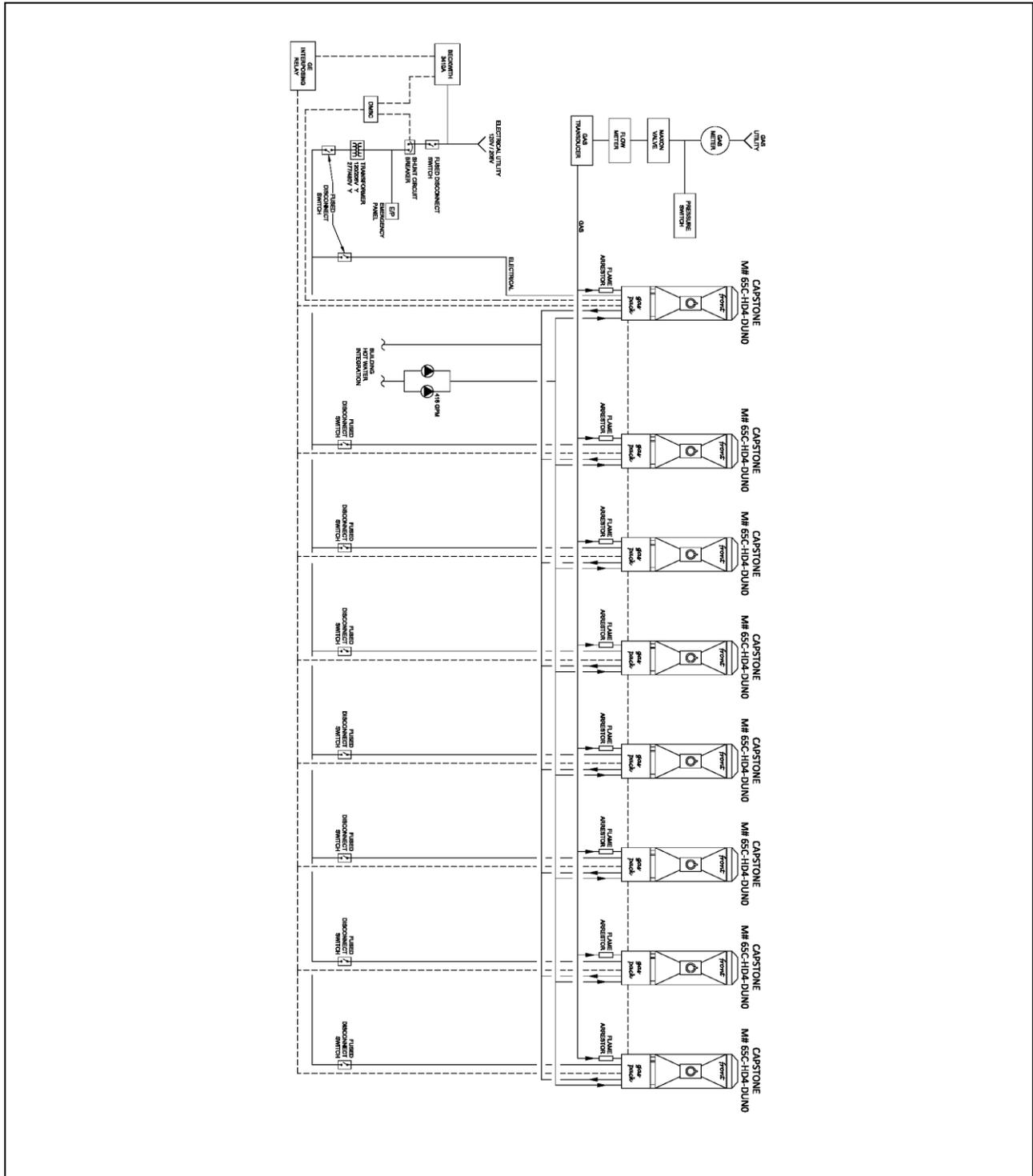
Vendor Statement

- ◆ Achieve ultra-low emissions and reliable electrical/thermal generation from natural gas.
- ◆ One moving part minimal maintenance and downtime.
- ◆ Patented air bearing requires no lubricating oil or coolant in our design.
- ◆ 9 year bumper to bumper factory protection plan with remote monitoring and data mining dashboard.
- ◆ Integrated utility synchronization and protection: inverter based.
- ◆ The unit is small with a modular design allowing for easy installation.
- ◆ Reliable, with tens of millions of run hours and counting.
- ◆ The boiler that makes electricity and provides back up power.

RSP Systems

520-DM-iCHP

520kW





RSP Systems

520-DM-iCHP-CCHP

520kW

Description

Type of prime mover	Number of prime mover units	Synchronous or Inverter	Type	Black-Start Capable	Qualification Status
Microturbine	8	Inverter	CCHP	Yes	Conditionally qualified

Performance - Heating Mode

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	Hot Water to Building @ 180°F			NOx lbs/MWh
					MBtu/h	Return °F	Net System Efficiency % (HHV)	
100%	59°F	6732	488	25%	3104	169	71%	0.46
	95°F	6213	408	22%	2984	169	70%	0.46
75%	59°F	4976	360	25%	2320	169	71%	0.46
	95°F	4824	328	23%	2040	169	66%	0.46
50%	59°F	3656	232	22%	1760	169	70%	0.46
	95°F	3448	192	19%	1488	169	62%	0.46

¹ All performance data based on fuel energy content of 1000 Btu/CF HHV

Performance – Cooling Mode

Ambient DB/WB	Fuel in MBtu/h (HHV)	Net Prime Mover kW	Prime Mover Hot Water Supply to Chiller			Chiller			Chiller Cooling Tower Water		
			MBtu/h	Supply °F	Return °F	Capacity ² tons	Coefficient of Performance	Parasitic kW	gpm	Supply °F	Return °F
95/78°F	6213	410	2756	210	200	128	0.7	6	450	85	102

² Using heat from the prime mover. 45 °F chilled water output.

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*	25'	31'	8'-8"	45,650
Core system based on minimum width*	25'	31'	8'-8"	
PM Heat Rejection subsystem*	N/A	N/A	N/A	
Chiller Cooling Tower*	4'-11"	25'-6"	8'-8"	13,130
Largest part for delivery	4'-11"	25'-6"	8'-8"	13,130
Heaviest part for delivery	25'	31'	8'-8"	45,650

*Includes maintenance clearances.

Vendor Information

RSP Systems 528 Craven Street Bronx, NY 10474 718- 991-6999 sales@cogennyc.com www.rsp-systems.com

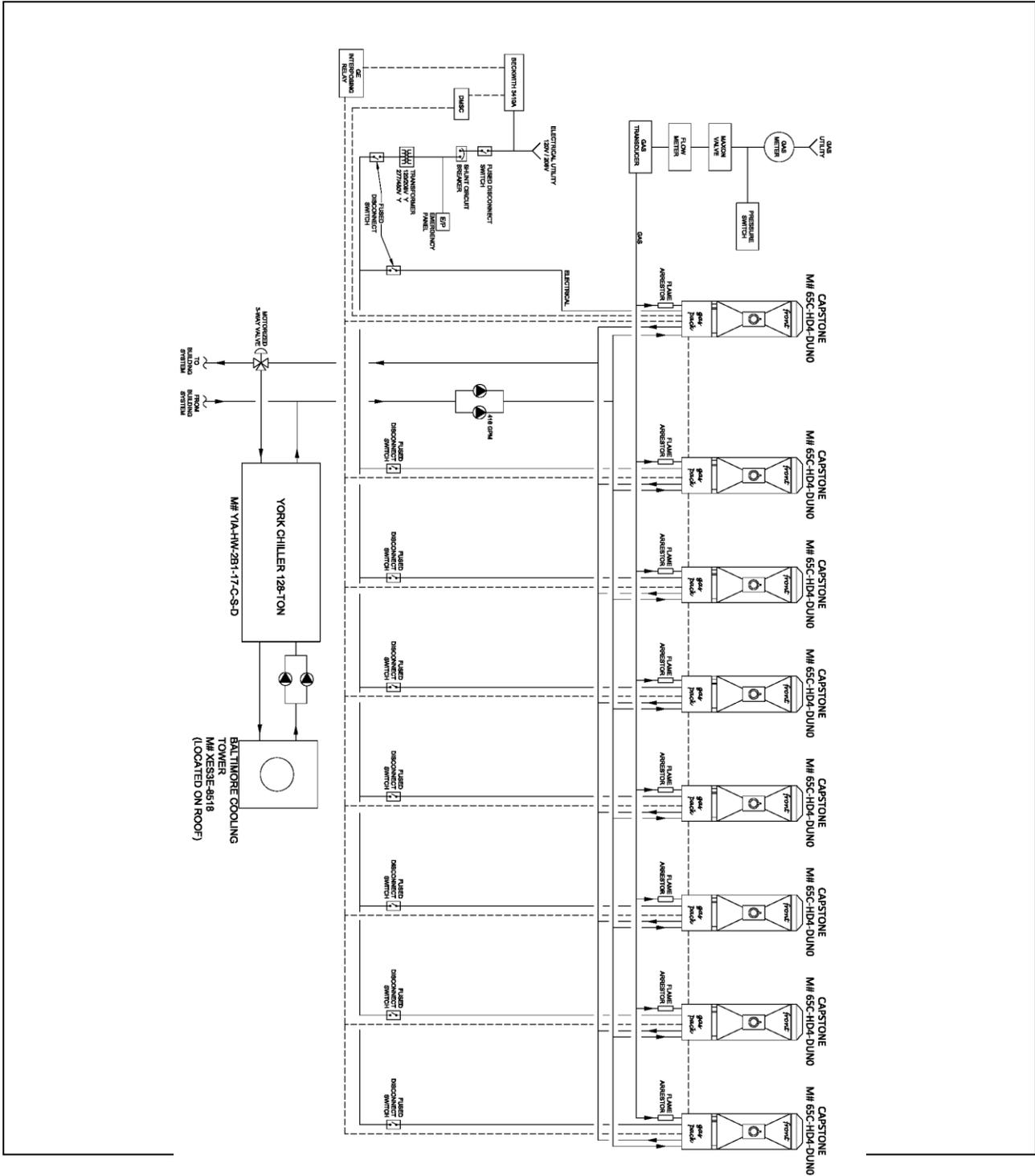
Vendor Statement

- ◆ Achieve ultra-low emissions and reliable electrical/thermal generation from natural gas.
- ◆ One moving part minimal maintenance and downtime.
- ◆ Patented air bearing requires no lubricating oil or coolant in our design.
- ◆ 9 year bumper to bumper factory protection plan with remote monitoring and data mining dashboard.
- ◆ Integrated utility synchronization and protection: inverter based.
- ◆ The unit is small with a modular design allowing for easy installation.
- ◆ Reliable, with tens of millions of run hours and counting.
- ◆ The boiler that makes electricity and provides back up power.

RSP Systems

520-DM-iCHP-CCHP

520kW





RSP Systems

585-DM-iCHP

585kW

Description

Type of prime mover	Number of prime mover units	Synchronous or Inverter	Type	Black-Start Capable	Qualification Status
Microturbine	9	Inverter	CHP-HW	Yes	Conditionally qualified

Performance

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	Hot Water to Building @ 180°F			NOx lbs/MWh
					MBtu/h	Return °F	Net System Efficiency % (HHV)	
100%	59°F	7574	549	25%	3492	169	71%	0.46
	95°F	6989	459	22%	3357	169	70%	0.46
75%	59°F	5598	405	25%	2610	169	71%	0.46
	95°F	5427	369	23%	2295	169	66%	0.46
50%	59°F	4113	261	22%	1980	169	70%	0.46
	95°F	3879	216	19%	1674	169	62%	0.46

Notes: 1 – All performance data based on fuel energy content of 1000 Btu/CF HHV

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*	30'	31'	7'-10"	31,500
Core system based on minimum width*	30'	31'	7'-10"	
Heat Rejection subsystem*	N/A	N/A	N/A	
Largest part for delivery	30"	77"	83"	2,200
Heaviest part for delivery	30"	77"	83"	2,200

*Includes maintenance clearances.

Vendor Information

RSP Systems 528 Craven Street Bronx, NY 10474 718- 991-6999 sales@cogennyc.com www.rsp-systems.com

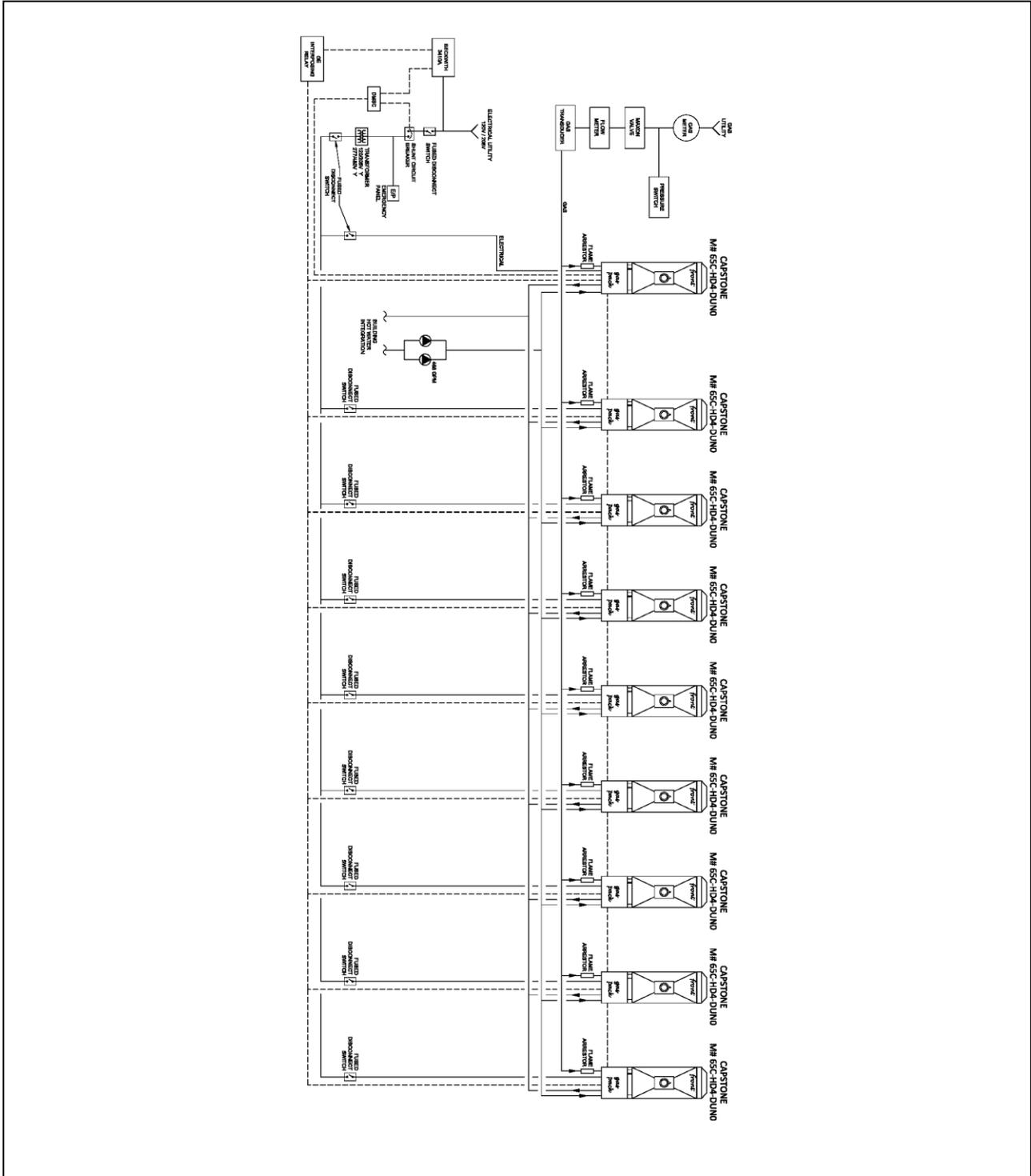
Vendor Statement

- ◆ Achieve ultra-low emissions and reliable electrical/thermal generation from natural gas.
- ◆ One moving part minimal maintenance and downtime.
- ◆ Patented air bearing requires no lubricating oil or coolant in our design.
- ◆ 9 year bumper to bumper factory protection plan with remote monitoring and data mining dashboard.
- ◆ Integrated utility synchronization and protection: inverter based.
- ◆ The unit is small with a modular design allowing for easy installation.
- ◆ Reliable, with tens of millions of run hours and counting.
- ◆ The boiler that makes electricity and provides back up power.

RSP Systems

585-DM-iCHP

585kW





RSP Systems

585-DM-iCHP-CCHP

585kW

Description

Type of prime mover	Number of prime mover units	Synchronous or Inverter	Type	Black-Start Capable	Qualification Status
Microturbine	9	Inverter	CCHP	Yes	Conditionally qualified

Performance - Heating Mode

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	Hot Water to Building @ 180°F			NOx lbs/MWh
					MBtu/h	Return °F	Net System Efficiency % (HHV)	
100%	59°F	7574	549	25%	3492	169	71%	0.46
	95°F	6989	459	22%	3357	169	70%	0.46
75%	59°F	5598	405	25%	2610	169	71%	0.46
	95°F	5427	369	23%	2295	169	66%	0.46
50%	59°F	4113	261	22%	1980	169	70%	0.46
	95°F	3879	216	19%	1674	169	62%	0.46

¹ All performance data based on fuel energy content of 1000 Btu/CF HHV

Performance – Cooling Mode

Ambient DB/WB	Fuel in MBtu/h (HHV)	Net Prime Mover kW	Prime Mover Hot Water Supply to Chiller			Chiller			Chiller Cooling Tower Water		
			MBtu/h	Supply °F	Return °F	Capacity ² tons	Coefficient of Performance	Parasitic kW	gpm	Supply °F	Return °F
95/78°F	6989	462	3134	210	200	144	0.7	6	545	85	100

² Using heat from the prime mover. 45 °F chilled water output.

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*	30'	31'	8'-8"	49,150
Core system based on minimum width*	30'	31'	8'-8"	
PM Heat Rejection subsystem*	N/A	N/A	N/A	
Chiller Cooling Tower*	4'-11"	16'-6"	8'-8"	13,130
Largest part for delivery	4'-11"	16'-6"	8'-8"	13,130
Heaviest part for delivery	30'	31'	8'-8"	49,150

*Includes maintenance clearances.

Vendor Information

RSP Systems 528 Craven Street Bronx, NY 10474 718- 991-6999 sales@cogennyc.com www.rsp-systems.com

Vendor Statement

- ◆ Achieve ultra-low emissions and reliable electrical/thermal generation from natural gas.
- ◆ One moving part minimal maintenance and downtime.
- ◆ Patented air bearing requires no lubricating oil or coolant in our design.
- ◆ 9 year bumper to bumper factory protection plan with remote monitoring and data mining dashboard.
- ◆ Integrated utility synchronization and protection: inverter based.
- ◆ The unit is small with a modular design allowing for easy installation.
- ◆ Reliable, with tens of millions of run hours and counting.
- ◆ The boiler that makes electricity and provides back up power.



RSP Systems

C200-3-DM-HW

600kW

Description

Type of prime mover	Number of prime mover units	Synchronous or Inverter	Type	Black-Start Capable	Qualification Status
Microturbine	3	Inverter	CHP-HW	Yes	Conditionally qualified

Performance

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	Hot Water to Building @ 180°F			NOx lbs/MWh
					MBtu/h	Return °F	Net System Efficiency % (HHV)	
100%	59°F	6861	570	28%	2433	170	64%	0.40
	95°F	6420	504	27%	2163	170	61%	0.40
75%	59°F							
	95°F							
75%	59°F							
	95°F							

Notes: 1 – All performance data based on fuel energy content of 1000 Btu/CF HHV

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*	21'	37'-5"	11'-4"	27,370
Core system based on minimum width*	21'	37'-5"	11'-4"	
Heat Rejection subsystem*	N/A	N/A	N/A	N/A
Largest part for delivery	5'-7"	11'-8"	11'-4"	7,525
Heaviest part for delivery	5'-7"	11'-8"	11'-4"	7,525

*Includes maintenance clearances.

Vendor Information

RSP Systems 528 Craven Street Bronx, NY 10474 718- 991-6999 sales@cogennyc.com www.rsp-systems.com

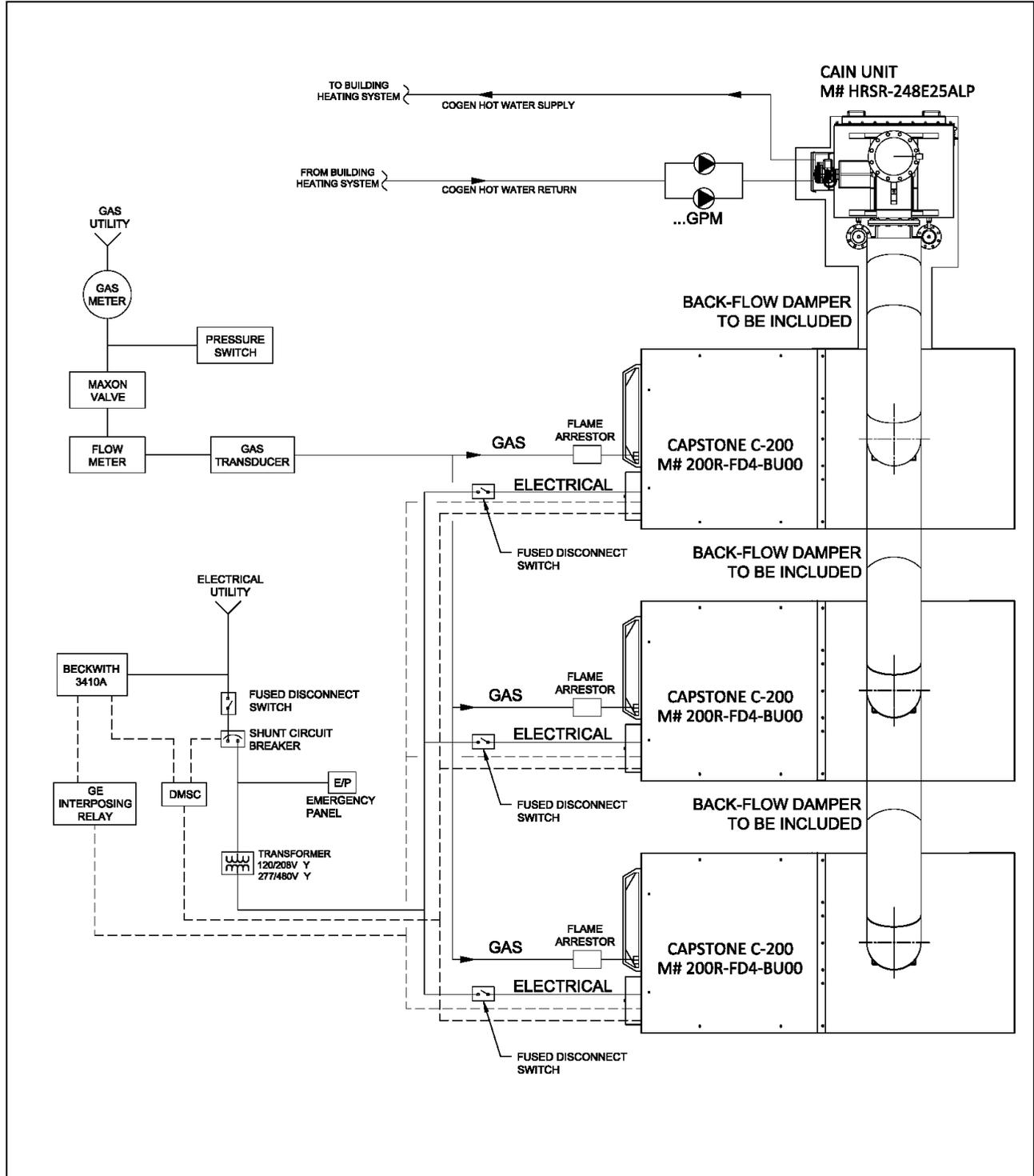
Vendor Statement

- ◆ Achieve ultra-low emissions and reliable electrical/thermal generation from natural gas.
- ◆ One moving part minimal maintenance and downtime.
- ◆ Patented air bearing requires no lubricating oil or coolant in our design.
- ◆ 9 year bumper to bumper factory protection plan with remote monitoring and data mining dashboard.
- ◆ Integrated utility synchronization and protection: inverter based.
- ◆ The unit is small with a modular design allowing for easy installation.
- ◆ Reliable, with tens of millions of run hours and counting.
- ◆ The boiler that makes electricity and provides back up power.

RSP Systems

C200-3-DM-HW

600kW





RSP Systems

C600-3-DM-Steam

600kW

Description

Type of prime mover	Number of prime mover units	Synchronous or Inverter	Type	Black-Start Capable	Qualification Status
Microturbine	3	Inverter	CHP Steam	Yes	Conditionally qualified

Performance

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	Steam @ 5 psig Operating			NOx lbs/MWh
					MBtu/h	Water Inlet Temperature °F	Net System Efficiency % (HHV)	
100%	59°F	6860	570	28%	2050	212	58%	0.40
	95°F	6420	504	27%	2281	212	62%	0.40
75%	59°F							
	95°F							
50%	59°F							
	95°F							

Notes: 1 – All performance data based on fuel energy content of 1000 Btu/CF HHV

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*	21'	39'-4"	11'-4"	35,150
Core system based on minimum width*	21'	39'-4"	11'-4"	
Heat Rejection subsystem*	N/A	N/A	N/A	N/A
Largest part for delivery	7'-10"	12'-4"	10'-3"	12,570
Heaviest part for delivery	7'-10"	12'-4"	10'-3"	12,570

*Includes maintenance clearances.

Vendor Information

RSP Systems 528 Craven Street Bronx, NY 10474 718- 991-6999 sales@cogennyc.com www.rsp-systems.com

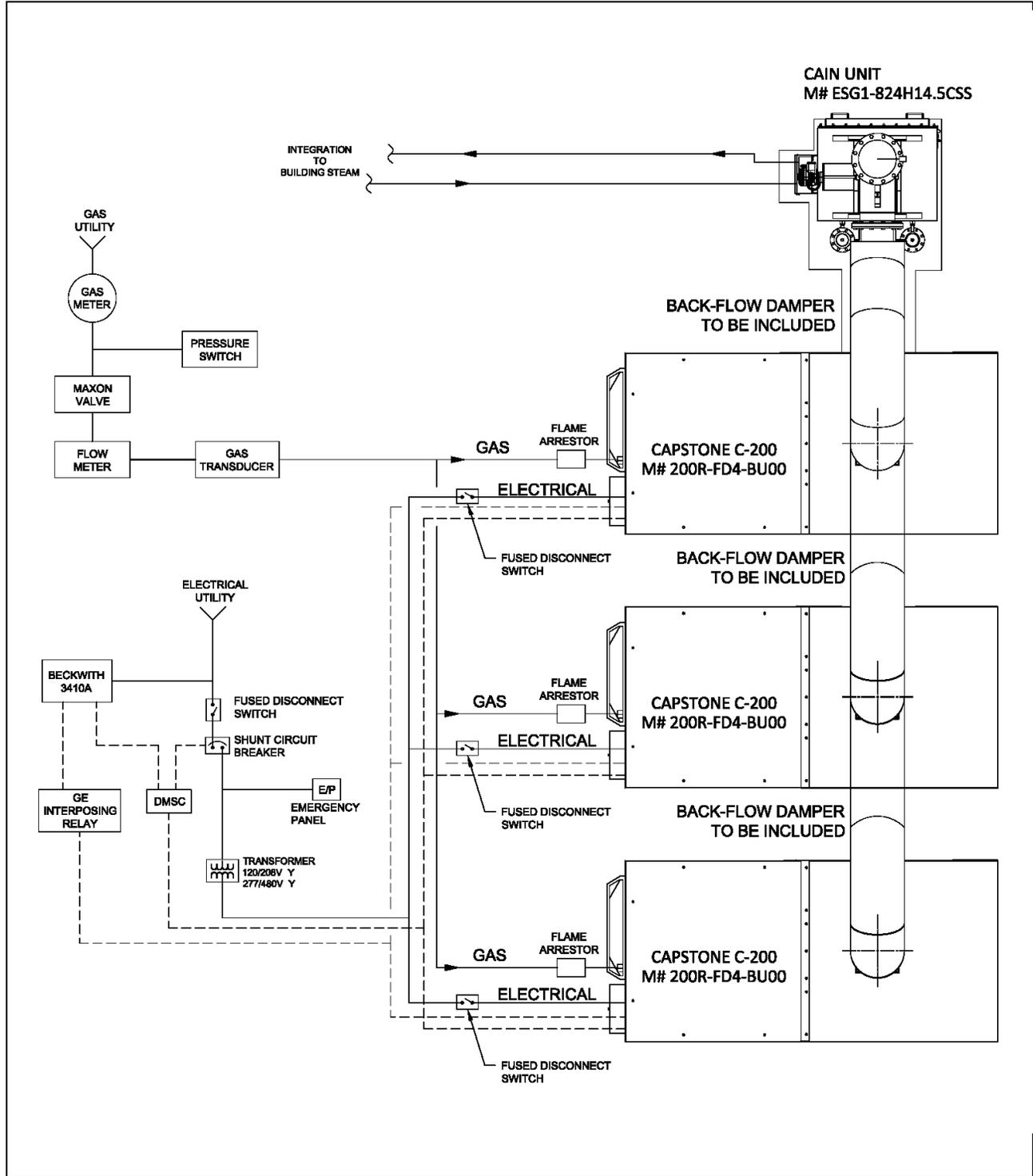
Vendor Statement

- ◆ Achieve ultra-low emissions and reliable electrical/thermal generation from natural gas.
- ◆ One moving part minimal maintenance and downtime.
- ◆ Patented air bearing requires no lubricating oil or coolant in our design.
- ◆ 9 year bumper to bumper factory protection plan with remote monitoring and data mining dashboard.
- ◆ Integrated utility synchronization and protection: inverter based.
- ◆ The unit is small with a modular design allowing for easy installation.
- ◆ Reliable, with tens of millions of run hours and counting.
- ◆ The boiler that makes electricity and provides back up power.

RSP Systems

C600-3-DM-Steam

600kW





RSP Systems

C200-3-DM-CCHP

600 kW

Description

Type of prime mover	Number of prime mover units	Synchronous or Inverter	Type	Black-Start Capable	Qualification Status
Microturbine	3	Inverter	CCHP	Yes	Conditionally qualified

Performance - Heating Mode

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	Hot Water to Building @ 180°F			NOx lbs/MWh
					MBtu/h	Return °F	Net System Efficiency % (HHV)	
100%	59°F	6860	570	28%	2189	170	60%	0.40
	95°F	6420	504	27%	2381	170	64%	0.40
75%	59°F							
	95°F							
50%	59°F							
	95°F							

¹ All performance data based on fuel energy content of 1000 Btu/CF HHV

Performance – Cooling Mode

Ambient DB/WB	Fuel in MBtu/h (HHV)	Net Prime Mover kW	Prime Mover Hot Water Supply to Chiller			Chiller			Chiller Cooling Tower Water		
			MBtu/h	Supply °F	Return °F	Capacity ² tons	Coefficient of Performance	Parasitic kW	gpm	Supply °F	Return °F
95/78°F	6420	504	2811	210	200	160	0.7	6	680	85	100

² Using heat from the prime mover. 45 °F chilled water output.

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*	59'	37'-10"	11'-4"	45,015
Core system based on minimum width*	59'	37'-10"	11'-4"	
PM Heat Rejection subsystem*	18'	8'-6"	12'-6"	18,350
Chiller Cooling Tower*	5'	16'-6"	8'-8"	17,650
Largest part for delivery	5'	16'-6"	8'-8"	17,650
Heaviest part for delivery	59'	37'-10"	11'-4"	45,015

*Includes maintenance clearances.

Vendor Information

RSP Systems 528 Craven Street Bronx, NY 10474 718- 991-6999 sales@cogennyc.com www.rsp-systems.com

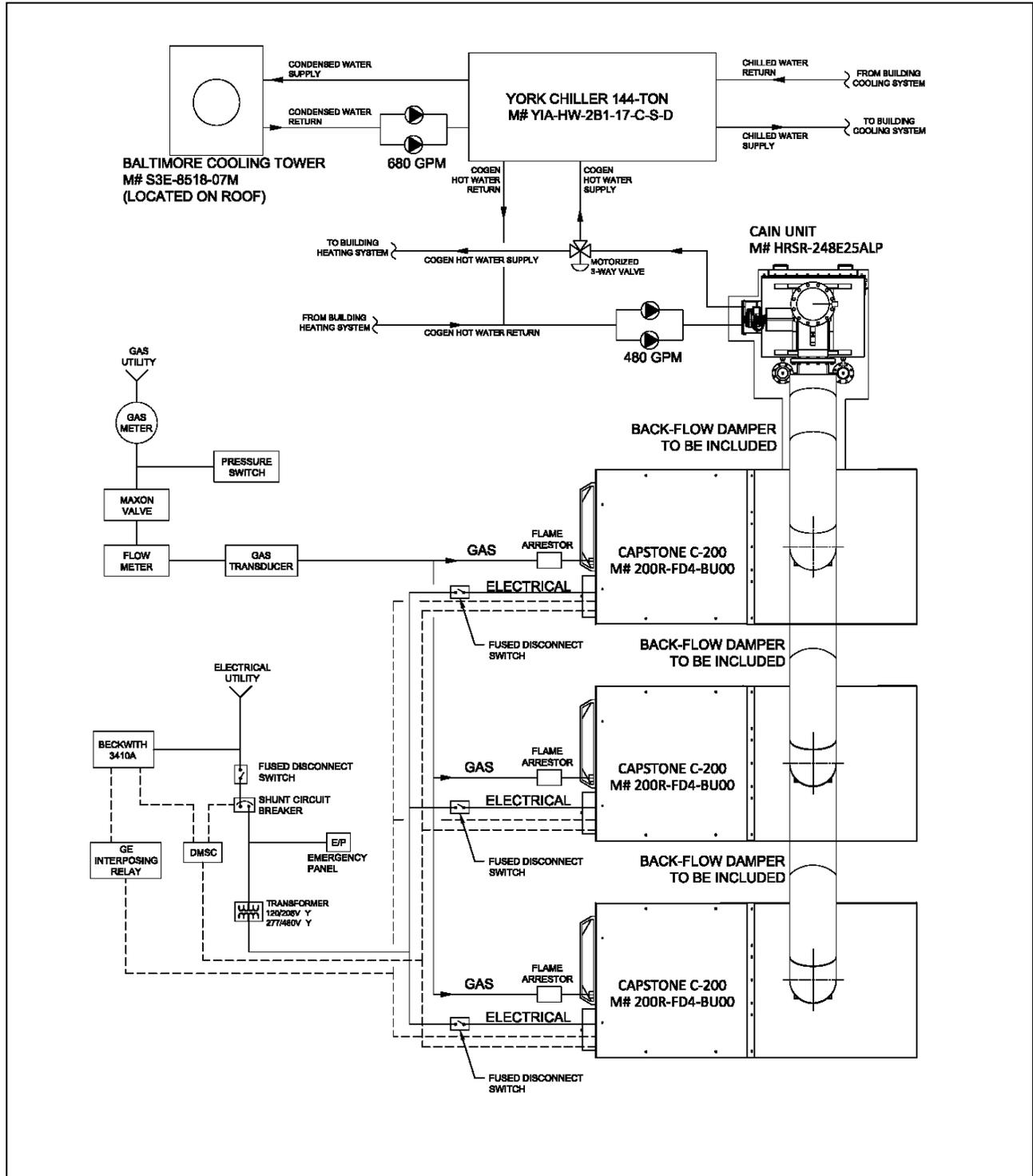
Vendor Statement

- ◆ Achieve ultra-low emissions and reliable electrical/thermal generation from natural gas.
- ◆ One moving part minimal maintenance and downtime.
- ◆ Patented air bearing requires no lubricating oil or coolant in our design.
- ◆ 9 year bumper to bumper factory protection plan with remote monitoring and data mining dashboard.
- ◆ Integrated utility synchronization and protection: inverter based.
- ◆ The unit is small with a modular design allowing for easy installation.
- ◆ Reliable, with tens of millions of run hours and counting.
- ◆ The boiler that makes electricity and provides back up power.

RSP Systems

C200-3-DM-CCHP

600 kW





RSP Systems

C600-DM- Cain HW

600kW

Description

Type of prime mover	Number of prime mover units	Synchronous or Inverter	Type	Black-Start Capable	Qualification Status
Microturbine	3	Inverter	CHP-HW	Yes	Conditionally qualified

Performance

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	Hot Water to Building @ 180°F			NOx lbs/MWh
					MBtu/h	Return °F	Net System Efficiency % (HHV)	
100%	59°F	6861	570	28%	2433	170	64%	0.40
	95°F	6420	504	27%	2163	170	61%	0.40
75%	59°F							
	95°F							
50%	59°F							
	95°F							

Notes: 1 – All performance data based on fuel energy content of 1000 Btu/CF HHV

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*	18'-4"	38'	10'-6"	39,190
Core system based on minimum width*	18'-4"	38'	10'-6"	
Heat Rejection subsystem*	N/A	N/A	N/A	
Largest part for delivery	7'-10"	30'	9'-8"	34,600
Heaviest part for delivery	7'-10"	30'	9'-8"	34,600

*Includes maintenance clearances.

Vendor Information

RSP Systems 528 Craven Street Bronx, NY 10474 718- 991-6999 sales@cogennyc.com www.rsp-systems.com

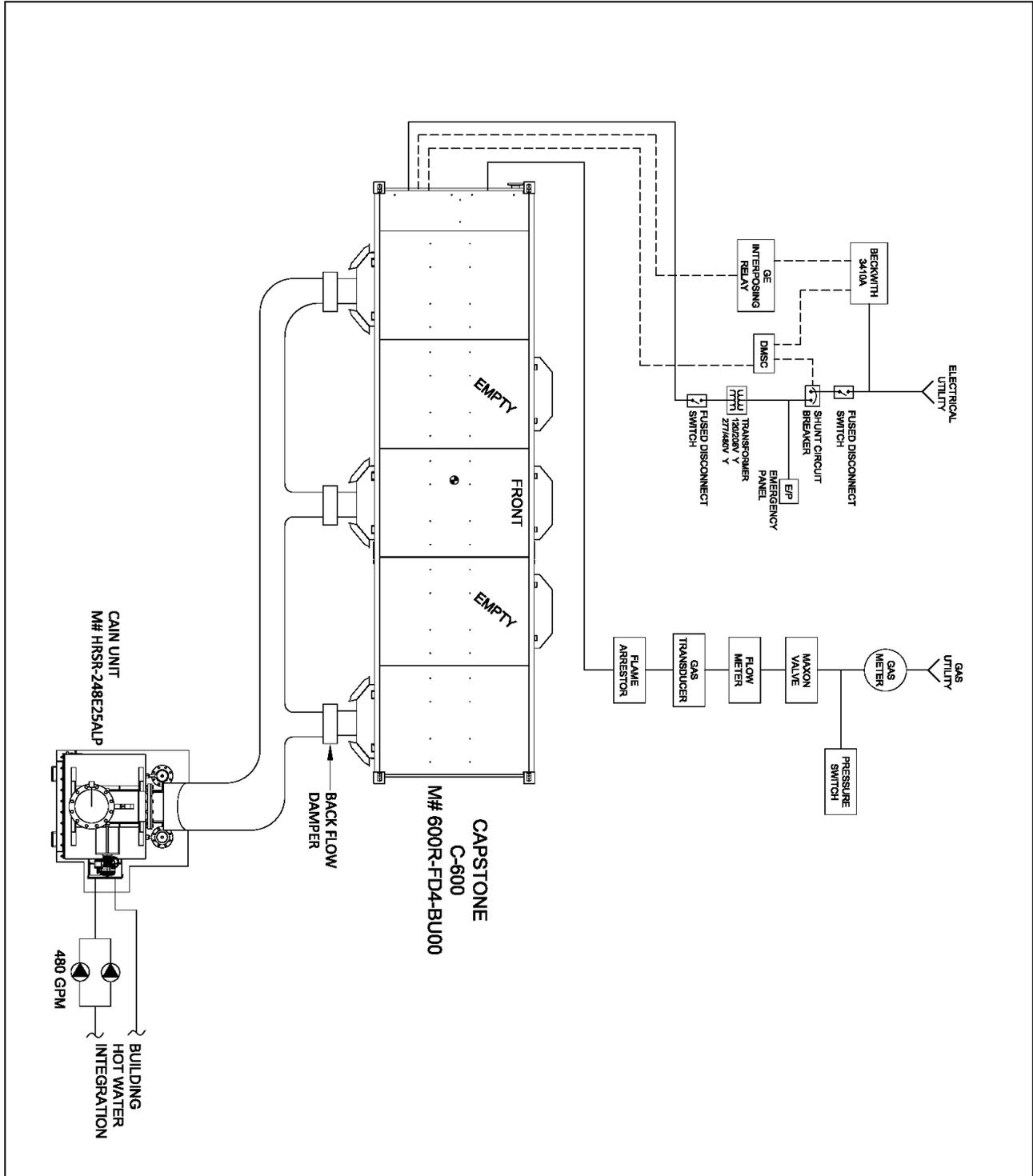
Vendor Statement

- ◆ Achieve ultra-low emissions and reliable electrical/thermal generation from natural gas.
- ◆ One moving part minimal maintenance and downtime.
- ◆ Patented air bearing requires no lubricating oil or coolant in our design.
- ◆ 9 year bumper to bumper factory protection plan with remote monitoring and data mining dashboard.
- ◆ Integrated utility synchronization and protection: inverter based.
- ◆ The unit is small with a modular design allowing for easy installation.
- ◆ Reliable, with tens of millions of run hours and counting.
- ◆ The boiler that makes electricity and provides back up power.

RSP Systems

C600-DM- Cain HW

600kW



RSP Systems
C600-DM-Cain Steam
600kW
Description

Type of prime mover	Number of prime mover units	Synchronous or Inverter	Type	Black-Start Capable	Qualification Status
Microturbine	3	Inverter	CHP Steam	Yes	Conditionally qualified

Performance

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	Steam @ 5 psig Operating			NOx lbs/MWh
					MBtu/h	Water Inlet Temperature °F	Net System Efficiency % (HHV)	
100%	59°F	6860	570	28%	2050	212	58%	0.40
	95°F	6420	504	27%	2281	212	62%	0.40
75%	59°F							
	95°F							
50%	59°F							
	95°F							

Notes: 1 – All performance data based on fuel energy content of 1000 Btu/CF HHV

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*	18'-4"	38'	10'-6"	48,000
Core system based on minimum width*	18'-4"	38'	10'-6"	
Heat Rejection subsystem*	N/A	N/A	N/A	
Largest part for delivery	7'-10"	30'	9'-8"	34,600
Heaviest part for delivery	7'-10"	30'	9'-8"	34,600

*Includes maintenance clearances.

Vendor Information

RSP Systems 528 Craven Street Bronx, NY 10474 718- 991-6999 sales@cogennyc.com www.rsp-systems.com

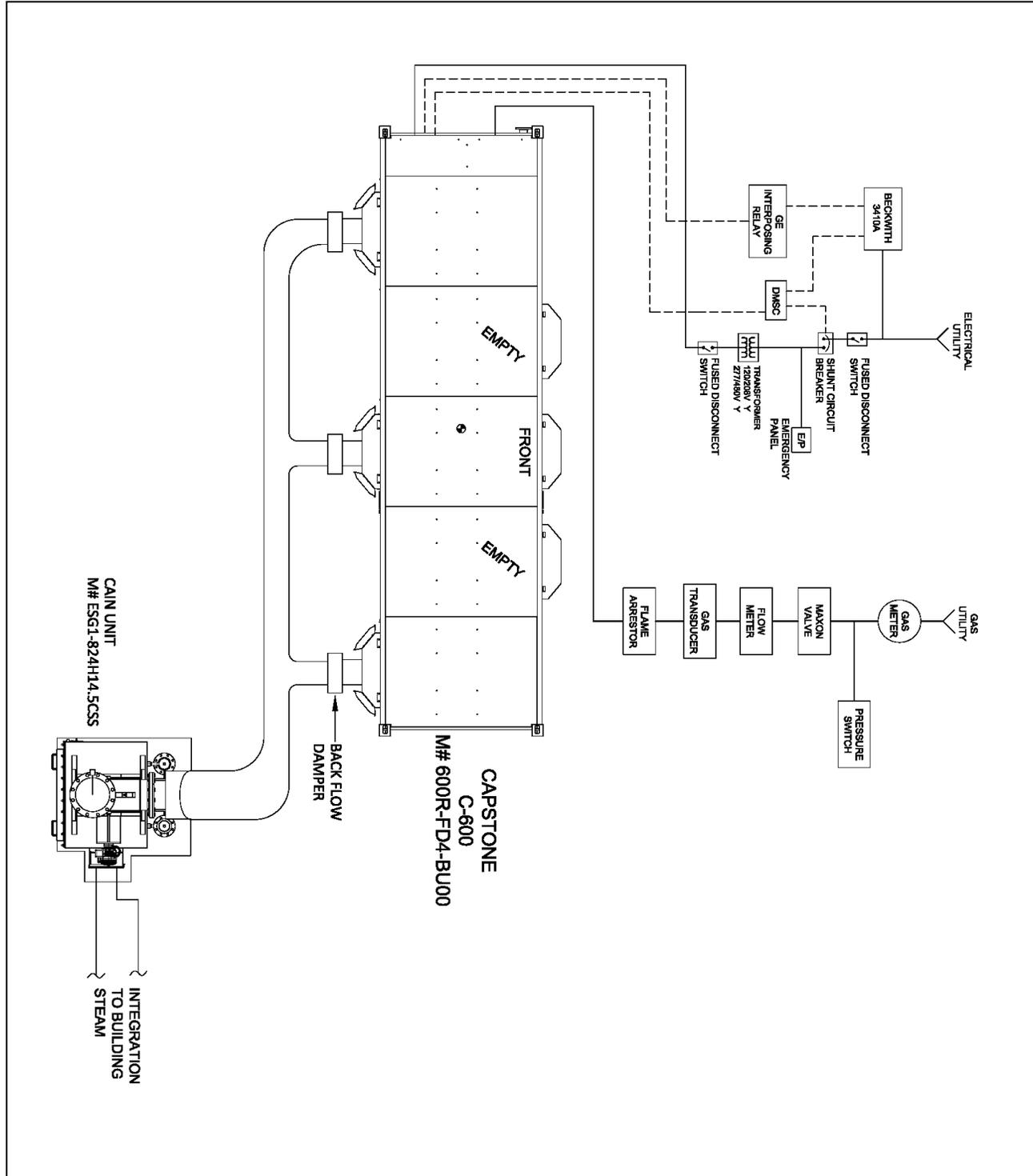
Vendor Statement

<ul style="list-style-type: none"> ◆ Achieve ultra-low emissions and reliable electrical/thermal generation from natural gas. ◆ One moving part minimal maintenance and downtime. ◆ Patented air bearing requires no lubricating oil or coolant in our design. ◆ 9 year bumper to bumper factory protection plan with remote monitoring and data mining dashboard. ◆ Integrated utility synchronization and protection: inverter based. ◆ The unit is small with a modular design allowing for easy installation. ◆ Reliable, with tens of millions of run hours and counting. ◆ The boiler that makes electricity and provides back up power.
--

RSP Systems

C600-DM-Cain Steam

600kW





RSP Systems
Description

C600-DM- Cain CCHP

600 kW

Type of prime mover	Number of prime mover units	Synchronous or Inverter	Type	Black-Start Capable	Qualification Status
Microturbine	3	Inverter	CCHP	Yes	Conditionally qualified

Performance - Heating Mode

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	Hot Water to Building @ 180°F			NOx lbs/MWh
					MBtu/h	Return °F	Net System Efficiency % (HHV)	
100%	59°F	6860	570	28%	2189	170	60%	0.40
	95°F	6420	504	27%	2381	170	64%	0.40
75%	59°F							
	95°F							
50%	59°F							
	95°F							

¹ All performance data based on fuel energy content of 1000 Btu/CF HHV

Performance – Cooling Mode

Ambient DB/WB	Fuel in MBtu/h (HHV)	Net Prime Mover kW	Prime Mover Hot Water Supply to Chiller			Chiller			Chiller Cooling Tower Water		
			MBtu/h	Supply °F	Return °F	Capacity ² tons	Coefficient of Performance	Parasitic kW	gpm	Supply °F	Return °F
95/78°F	6420	504	2811	210	200	160	0.7	6	680	85	100

² Using heat from the prime mover. 45 °F chilled water output.

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*	25'	54'	10'-6"	56,800
Core system based on minimum width*	25'	54'	10'-6"	
PM Heat Rejection subsystem*	N/A	N/A	N/A	
Chiller Cooling Tower*	7'-10"	30'	9'-8"	34,600
Largest part for delivery	7'-10"	30'	9'-8"	34,600
Heaviest part for delivery	25'	54'	10'-6"	56,800

*Includes maintenance clearances.

Vendor Information

RSP Systems 528 Craven Street Bronx, NY 10474 718- 991-6999 sales@cogennyc.com www.rsp-systems.com

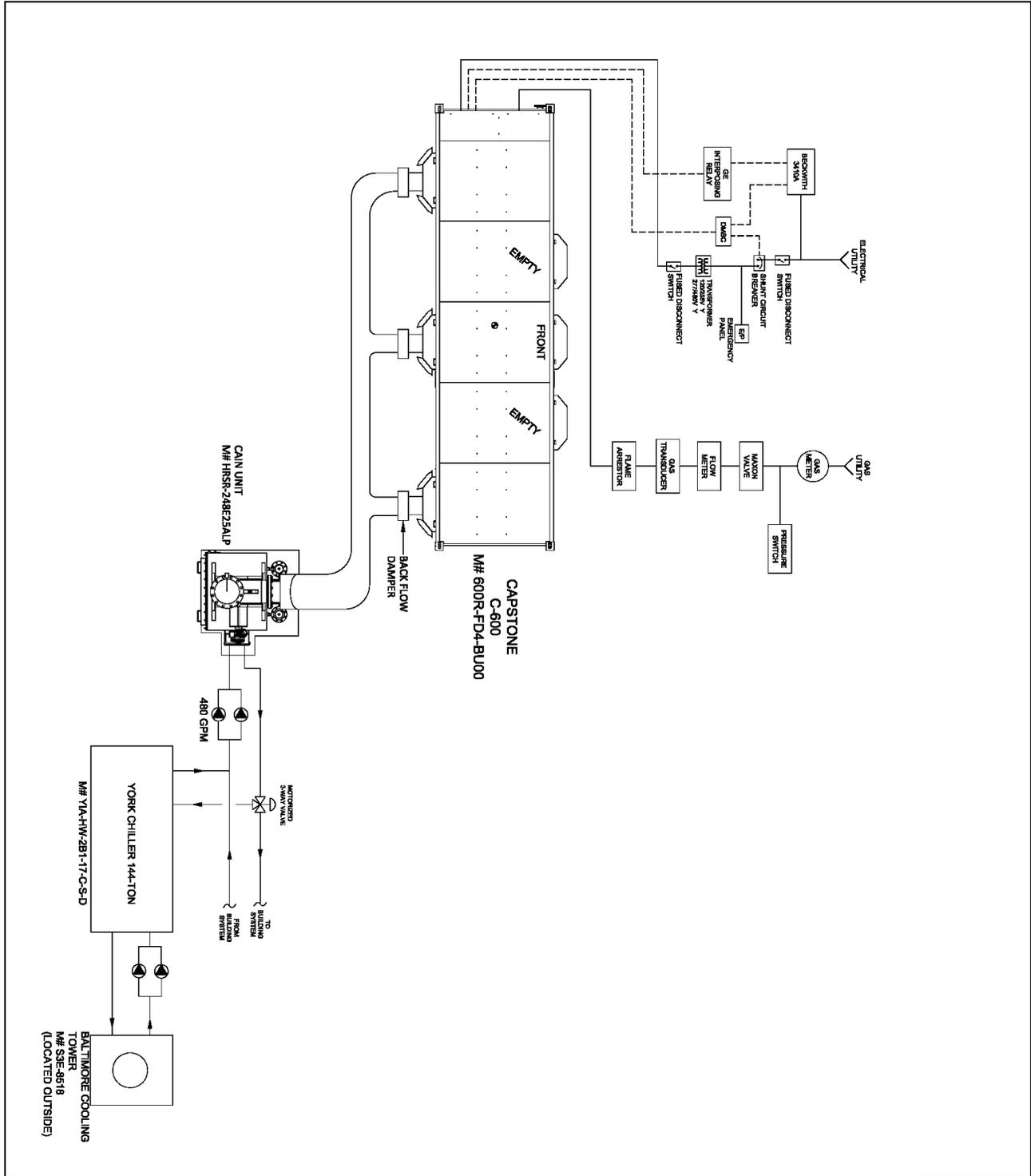
Vendor Statement

- ◆ Achieve ultra-low emissions and reliable electrical/thermal generation from natural gas.
- ◆ One moving part minimal maintenance and downtime.
- ◆ Patented air bearing requires no lubricating oil or coolant in our design.
- ◆ 9 year bumper to bumper factory protection plan with remote monitoring and data mining dashboard.
- ◆ Integrated utility synchronization and protection: inverter based.
- ◆ The unit is small with a modular design allowing for easy installation.
- ◆ Reliable, with tens of millions of run hours and counting.
- ◆ The boiler that makes electricity and provides back up power.

RSP Systems

C600-DM- Cain CCHP

600 kW





RSP Systems

C600S-DM-HW

600kW

Description

Type of prime mover	Number of prime mover units	Synchronous or Inverter	Type	Black-Start Capable	Qualification Status
Microturbine	3	Inverter	CHP-HW	Yes	Conditionally qualified

Performance

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	Hot Water to Building @ 180°F			NOx lbs/MWh
					MBtu/h	Return °F	Net System Efficiency % (HHV)	
100%	59°F	6861	570	28%	2646	160	67%	0.40
	95°F	6420	504	27%	2853	160	71%	0.40
75%	59°F	5163	420	28%	1830	160	63%	0.40
	95°F	4878	360	25%	1992	160	66%	0.40
50%	59°F	3669	270	25%	1221	160	58%	0.40
	95°F	3429	240	24%	1335	160	63%	0.40

Notes: 1 – All performance data based on fuel energy content of 1000 Btu/CF HHV

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*	20'-6"	35'	13"	40,600
Core system based on minimum width*	N/A	N/A	N/A"	
Heat Rejection subsystem*	N/A	N/A	N/A	
Largest part for delivery	8'	30'	9'-6"	34,600
Heaviest part for delivery	8'	30'	9'-6"	34,600

*Includes maintenance clearances.

Vendor Information

RSP Systems 528 Craven Street Bronx, NY 10474 718- 991-6999 sales@cogennyc.com www.rsp-systems.com

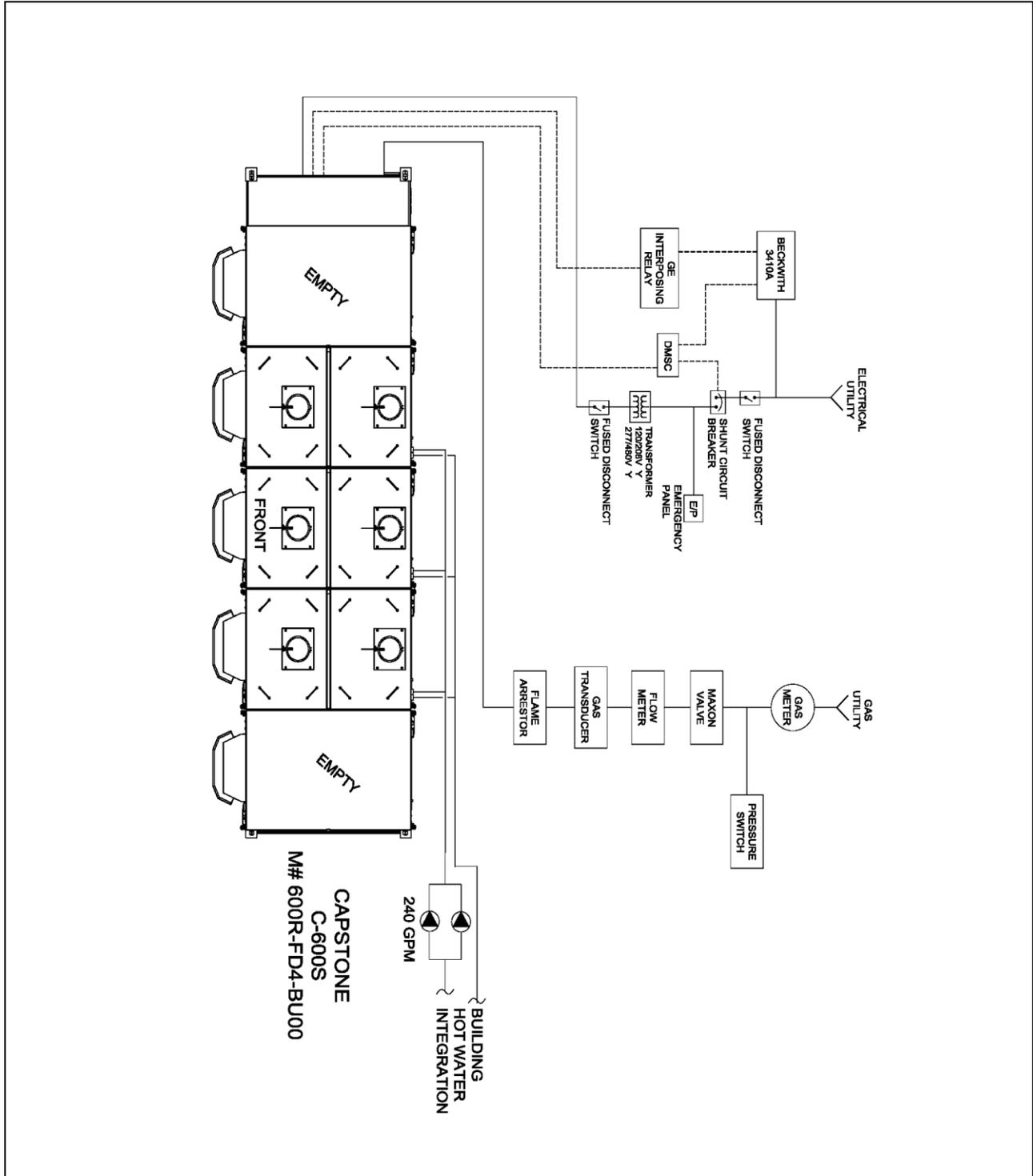
Vendor Statement

- ◆ Achieve ultra-low emissions and reliable electrical/thermal generation from natural gas.
- ◆ One moving part minimal maintenance and downtime.
- ◆ Patented air bearing requires no lubricating oil or coolant in our design.
- ◆ 9 year bumper to bumper factory protection plan with remote monitoring and data mining dashboard.
- ◆ Integrated utility synchronization and protection: inverter based.
- ◆ The unit is small with a modular design allowing for easy installation.
- ◆ Reliable, with tens of millions of run hours and counting.
- ◆ The boiler that makes electricity and provides back up power.

RSP Systems

C600S-DM-HW

600kW





RSP Systems

650-DM-iCHP

650kW

Description

Type of prime mover	Number of prime mover units	Synchronous or Inverter	Type	Black-Start Capable	Qualification Status
Microturbine	10	Inverter	CHP-HW	Yes	Conditionally qualified

Performance

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	Hot Water to Building @ 180°F			NOx lbs/MWh
					MBtu/h	Return °F	Net System Efficiency % (HHV)	
100%	59°F	8415	610	25%	3880	169	71%	0.46
	95°F	7766	510	22%	3730	169	70%	0.46
75%	59°F	6220	450	25%	2900	169	71%	0.46
	95°F	6030	410	23%	2550	169	66%	0.46
50%	59°F	4570	290	22%	2200	169	70%	0.46
	95°F	4310	240	19%	1860	169	62%	0.46

Notes: 1 – All performance data based on fuel energy content of 1000 Btu/CF HHV

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*	30'	31'	7'-10"	35,000
Core system based on minimum width*	30'	31'	7'-10"	
Heat Rejection subsystem*	N/A	N/A	N/A	
Largest part for delivery	30"	77"	83"	2,200
Heaviest part for delivery	30"	77"	83"	2,200

*Includes maintenance clearances.

Vendor Information

RSP Systems 528 Craven Street Bronx, NY 10474 718- 991-6999 sales@cogennyc.com www.rsp-systems.com

Vendor Statement

- ◆ Achieve ultra-low emissions and reliable electrical/thermal generation from natural gas.
- ◆ One moving part minimal maintenance and downtime.
- ◆ Patented air bearing requires no lubricating oil or coolant in our design.
- ◆ 9 year bumper to bumper factory protection plan with remote monitoring and data mining dashboard.
- ◆ Integrated utility synchronization and protection: inverter based.
- ◆ The unit is small with a modular design allowing for easy installation.
- ◆ Reliable, with tens of millions of run hours and counting.
- ◆ The boiler that makes electricity and provides back up power.



RSP Systems
Description

650-DM-iCHP-CCHP

650kW

Type of prime mover	Number of prime mover units	Synchronous or Inverter	Type	Black-Start Capable	Qualification Status
Microturbine	10	Inverter	CCHP	Yes	Conditionally qualified

Performance - Heating Mode

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	Hot Water to Building @ 180°F			NOx lbs/MWh
					MBtu/h	Return °F	Net System Efficiency % (HHV)	
100%	59°F	8415	610	25%	3880	169	71%	0.46
	95°F	7766	510	22%	3730	169	70%	0.46
75%	59°F	6220	450	25%	2900	169	71%	0.46
	95°F	6030	410	23%	2550	169	66%	0.46
50%	59°F	4570	290	22%	2200	169	70%	0.46
	95°F	4310	240	19%	1860	169	62%	0.46

¹ All performance data based on fuel energy content of 1000 Btu/CF HHV

Performance – Cooling Mode

Ambient DB/WB	Fuel in MBtu/h (HHV)	Net Prime Mover kW	Prime Mover Hot Water Supply to Chiller			Chiller			Chiller Cooling Tower Water		
			MBtu/h	Supply °F	Return °F	Capacity ² tons	Coefficient of Performance	Parasitic kW	gpm	Supply °F	Return °F
95/78°F	7766	513	3473	210	200	160	0.7	6	680	85	100

² Using heat from the prime mover. 45 °F chilled water output.

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*	30'	31'	8'-8"	52,650
Core system based on minimum width*	30'	31'	8'-8"	
PM Heat Rejection subsystem*	N/A	N/A	N/A	
Chiller Cooling Tower*	4'-11"	16'-6"	8'-8"	13,130
Largest part for delivery	4'-11"	16'-6"	8'-8"	13,130
Heaviest part for delivery	30'	31'	8'-8"	52,650

*Includes maintenance clearances.

Vendor Information

RSP Systems 528 Craven Street Bronx, NY 10474 718- 991-6999 sales@cogennyc.com www.rsp-systems.com

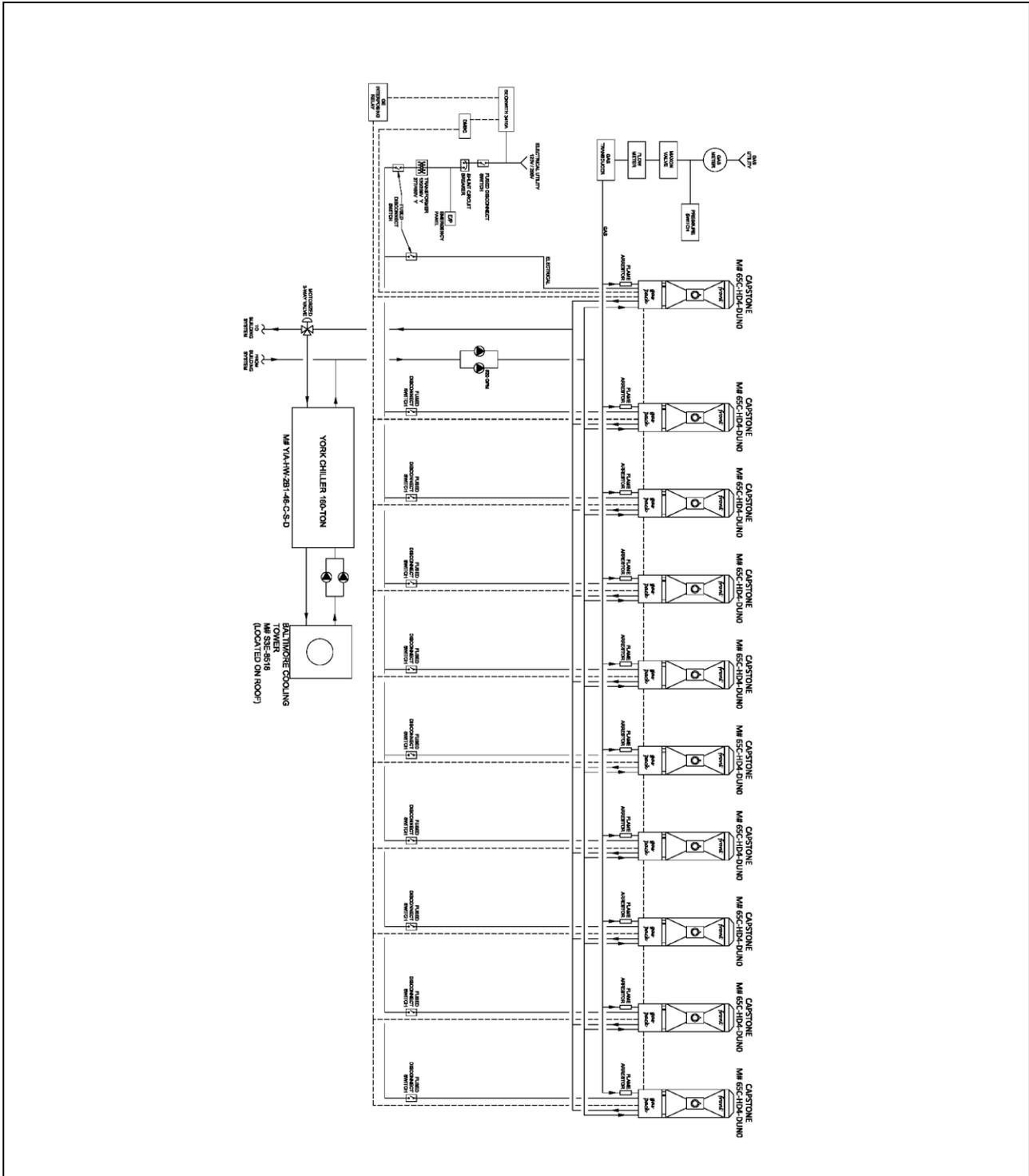
Vendor Statement

- ◆ Achieve ultra-low emissions and reliable electrical/thermal generation from natural gas.
- ◆ One moving part minimal maintenance and downtime.
- ◆ Patented air bearing requires no lubricating oil or coolant in our design.
- ◆ 9 year bumper to bumper factory protection plan with remote monitoring and data mining dashboard.
- ◆ Integrated utility synchronization and protection: inverter based.
- ◆ The unit is small with a modular design allowing for easy installation.
- ◆ Reliable, with tens of millions of run hours and counting.
- ◆ The boiler that makes electricity and provides back up power.

RSP Systems

650-DM-iCHP-CCHP

650kW





RSP Systems

715-DM-iCHP

715kW

Description

Type of prime mover	Number of prime mover units	Synchronous or Inverter	Type	Black-Start Capable	Qualification Status
Microturbine	11	Inverter	CHP-HW	Yes	Conditionally qualified

Performance

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	Hot Water to Building @ 180°F			NOx lbs/MWh
					MBtu/h	Return °F	Net System Efficiency % (HHV)	
100%	59°F	9257	671	25%	4268	169	71%	0.46
	95°F	8543	561	22%	4103	169	70%	0.46
75%	59°F	6842	495	25%	3190	169	71%	0.46
	95°F	6633	451	23%	2805	169	66%	0.46
50%	59°F	5027	319	22%	2420	169	70%	0.46
	95°F	4741	264	19%	2046	169	62%	0.46

Notes: 1 – All performance data based on fuel energy content of 1000 Btu/CF HHV

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*	39'	31'	7'-10"	38,500
Core system based on minimum width*	39'	31'	7'-10"	
Heat Rejection subsystem*	N/A	N/A	N/A	
Largest part for delivery	30"	77"	83"	2,200
Heaviest part for delivery	30"	77"	83"	2,200

*Includes maintenance clearances.

Vendor Information

RSP Systems 528 Craven Street Bronx, NY 10474 718- 991-6999 sales@cogennyc.com www.rsp-systems.com

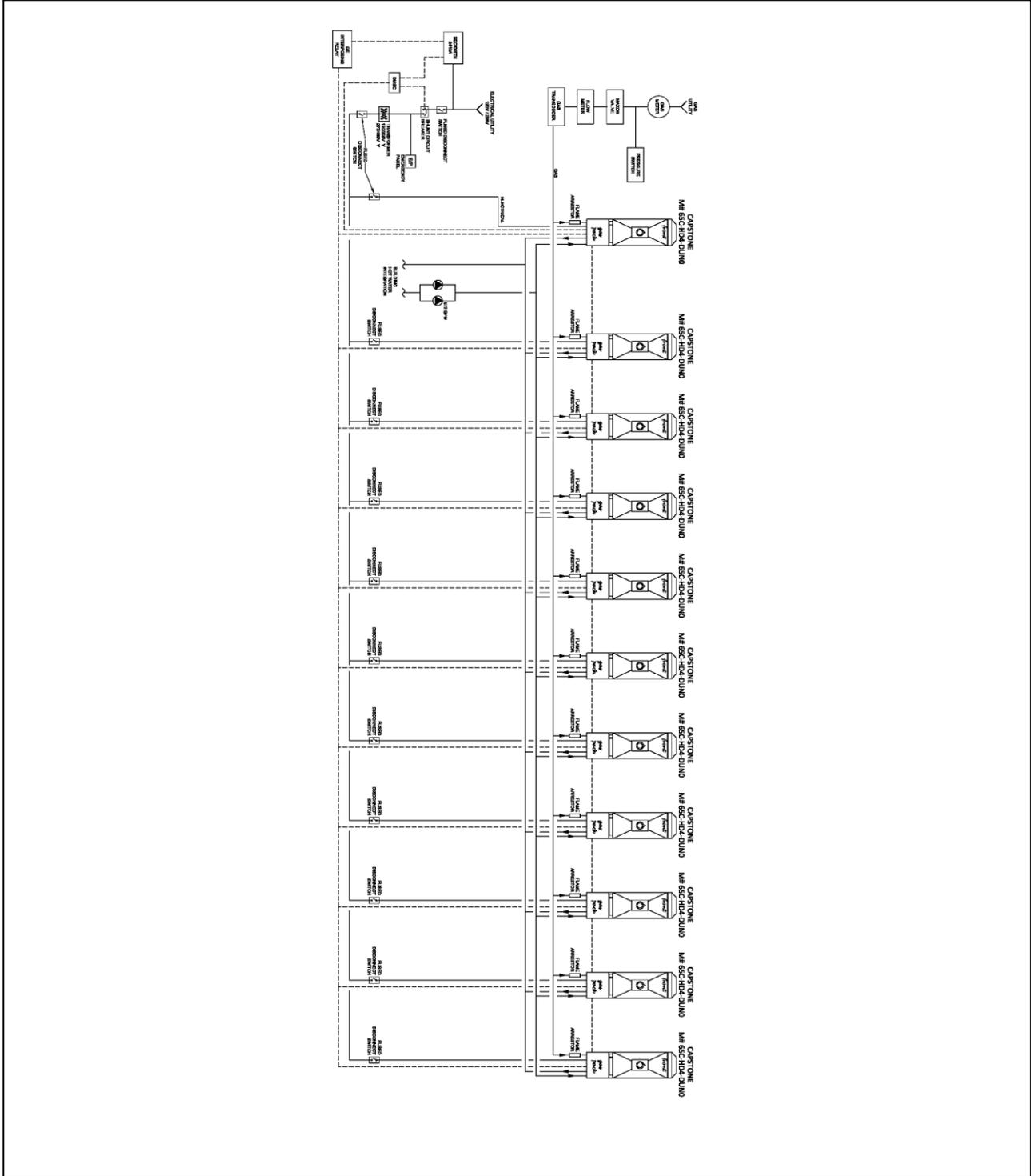
Vendor Statement

- ◆ Achieve ultra-low emissions and reliable electrical/thermal generation from natural gas.
- ◆ One moving part minimal maintenance and downtime.
- ◆ Patented air bearing requires no lubricating oil or coolant in our design.
- ◆ 9 year bumper to bumper factory protection plan with remote monitoring and data mining dashboard.
- ◆ Integrated utility synchronization and protection: inverter based.
- ◆ The unit is small with a modular design allowing for easy installation.
- ◆ Reliable, with tens of millions of run hours and counting.
- ◆ The boiler that makes electricity and provides back up power.

RSP Systems

715-DM-iCHP

715kW





RSP Systems
Description

715-DM-iCHP-CCHP

715kW

Type of prime mover	Number of prime mover units	Synchronous or Inverter	Type	Black-Start Capable	Qualification Status
Microturbine	11	Inverter	CCHP	Yes	Conditionally qualified

Performance - Heating Mode

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	Hot Water to Building @ 180°F			NOx lbs/MWh
					MBtu/h	Return °F	Net System Efficiency % (HHV)	
100%	59°F	9257	671	25%	4268	169	71%	0.46
	95°F	8543	561	22%	4103	169	70%	0.46
75%	59°F	6842	495	25%	3190	169	71%	0.46
	95°F	6633	451	23%	2805	169	66%	0.46
50%	59°F	5027	319	22%	2420	169	70%	0.46
	95°F	4741	264	19%	2046	169	62%	0.46

¹ All performance data based on fuel energy content of 1000 Btu/CF HHV

Performance – Cooling Mode

Ambient DB/WB	Fuel in MBtu/h (HHV)	Net Prime Mover kW	Prime Mover Hot Water Supply to Chiller			Chiller			Chiller Cooling Tower Water		
			MBtu/h	Supply °F	Return °F	Capacity ² tons	Coefficient of Performance	Parasitic kW	gpm	Supply °F	Return °F
95/78°F	8543	564	3814	210	200	176	0.7	7.3	650	85	100

² Using heat from the prime mover. 45 °F chilled water output.

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*	39'	31'	8'-8"	60,100
Core system based on minimum width*	39'	31'	8'-8"	
PM Heat Rejection subsystem*	N/A	N/A	N/A	
Chiller Cooling Tower*	4'-11"	20'-5"	8'-8"	15,900
Largest part for delivery	4'-11"	20'-5"	8'-8"	15,900
Heaviest part for delivery	39'	31'	8'-8"	60,100

*Includes maintenance clearances.

Vendor Information

RSP Systems 528 Craven Street Bronx, NY 10474 718- 991-6999 sales@cogennyc.com www.rsp-systems.com

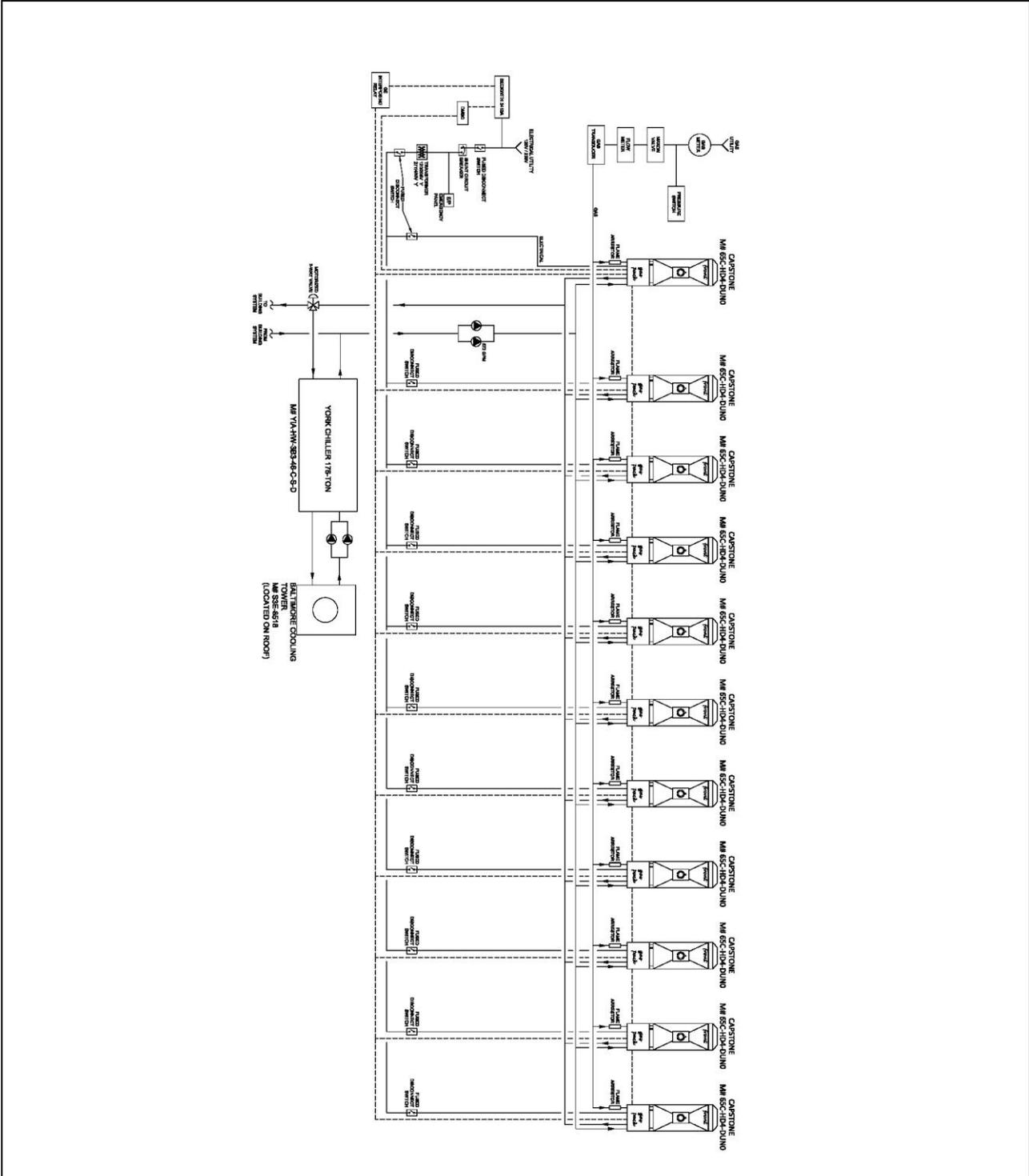
Vendor Statement

- ◆ Achieve ultra-low emissions and reliable electrical/thermal generation from natural gas.
- ◆ One moving part minimal maintenance and downtime.
- ◆ Patented air bearing requires no lubricating oil or coolant in our design.
- ◆ 9 year bumper to bumper factory protection plan with remote monitoring and data mining dashboard.
- ◆ Integrated utility synchronization and protection: inverter based.
- ◆ The unit is small with a modular design allowing for easy installation.
- ◆ Reliable, with tens of millions of run hours and counting.
- ◆ The boiler that makes electricity and provides back up power.

RSP Systems

715-DM-iCHP-CCHP

715kW



RSP Systems
780-DM-iCHP
780kW
Description

Type of prime mover	Number of prime mover units	Synchronous or Inverter	Type	Black-Start Capable	Qualification Status
Microturbine	12	Inverter	CHP-HW	Yes	Conditionally qualified

Performance

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	Hot Water to Building @ 180°F			NOx lbs/MWh
					MBtu/h	Return °F	Net System Efficiency % (HHV)	
100%	59°F	10098	732	25%	4656	169	71%	0.46
	95°F	9319	612	22%	4476	169	70%	0.46
75%	59°F	7464	540	25%	3480	169	71%	0.46
	95°F	7236	492	23%	3060	169	66%	0.46
50%	59°F	5484	348	22%	2640	169	70%	0.46
	95°F	5172	288	19%	2232	169	62%	0.46

Notes: 1 – All performance data based on fuel energy content of 1000 Btu/CF HHV

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*	39'	31'	7'-10"	42,000
Core system based on minimum width*	39'	31'	7'-10"	
Heat Rejection subsystem*	N/A	N/A	N/A	
Largest part for delivery	30"	77"	83"	2,200
Heaviest part for delivery	30"	77"	83"	2,200

*Includes maintenance clearances.

Vendor Information

RSP Systems 528 Craven Street Bronx, NY 10474 718- 991-6999 sales@cogennyc.com www.rsp-systems.com

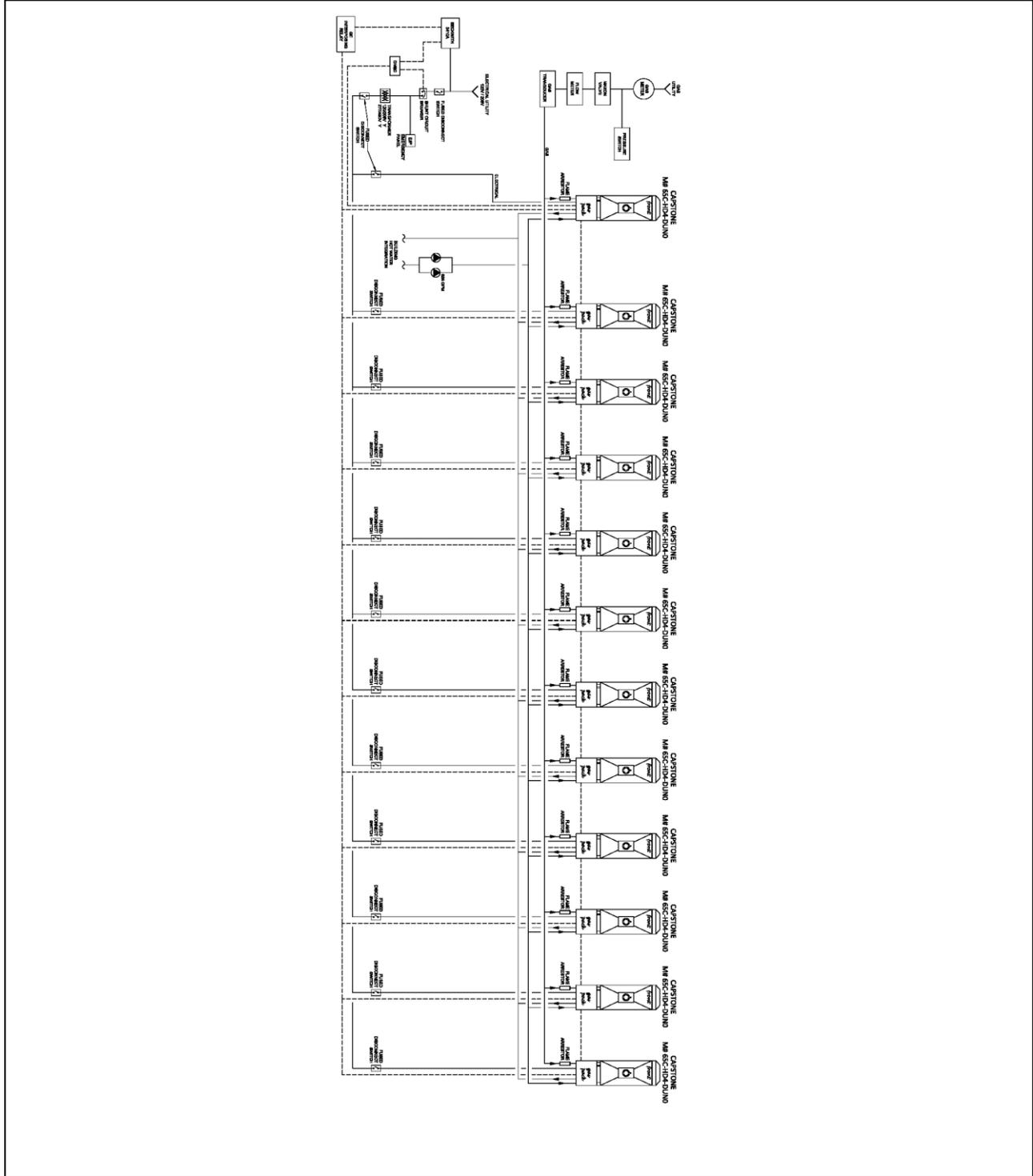
Vendor Statement

<ul style="list-style-type: none"> ◆ Achieve ultra-low emissions and reliable electrical/thermal generation from natural gas. ◆ One moving part minimal maintenance and downtime. ◆ Patented air bearing requires no lubricating oil or coolant in our design. ◆ 9 year bumper to bumper factory protection plan with remote monitoring and data mining dashboard. ◆ Integrated utility synchronization and protection: inverter based. ◆ The unit is small with a modular design allowing for easy installation. ◆ Reliable, with tens of millions of run hours and counting. ◆ The boiler that makes electricity and provides back up power.
--

RSP Systems

780-DM-iCHP

780kW





RSP Systems
Description

780-DM-iCHP-CCHP

780kW

Type of prime mover	Number of prime mover units	Synchronous or Inverter	Type	Black-Start Capable	Qualification Status
Microturbine	12	Inverter	CCHP	Yes	Conditionally qualified

Performance - Heating Mode

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	Hot Water to Building @ 180°F			NOx lbs/MWh
					MBtu/h	Return °F	Net System Efficiency % (HHV)	
100%	59°F	10098	732	25%	4656	169	71%	0.46
	95°F	9319	612	22%	4476	169	70%	0.46
75%	59°F	7464	540	25%	3480	169	71%	0.46
	95°F	7236	492	23%	3060	169	66%	0.46
50%	59°F	5484	348	22%	2640	169	70%	0.46
	95°F	5172	288	19%	2232	169	62%	0.46

¹ All performance data based on fuel energy content of 1000 Btu/CF HHV

Performance – Cooling Mode

Ambient DB/WB	Fuel in MBtu/h (HHV)	Net Prime Mover kW	Prime Mover Hot Water Supply to Chiller			Chiller			Chiller Cooling Tower Water		
			MBtu/h	Supply °F	Return °F	Capacity ² tons	Coefficient of Performance	Parasitic kW	gpm	Supply °F	Return °F
95/78°F	9319	616	4199	210	200	205	0.7	7.3	780	85	100

² Using heat from the prime mover. 45 °F chilled water output.

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*	39'	31'	8'-8"	61,700
Core system based on minimum width*	39'	31'	8'-8"	
PM Heat Rejection subsystem*	N/A	N/A	N/A	
Chiller Cooling Tower*	4'-11"	18'-6"	8'-8"	14,520
Largest part for delivery	4'-11"	18'-6"	8'-8"	14,520
Heaviest part for delivery	39'	31'	8'-8"	61,700

*Includes maintenance clearances.

Vendor Information

RSP Systems 528 Craven Street Bronx, NY 10474 718- 991-6999 sales@cogennyc.com www.rsp-systems.com

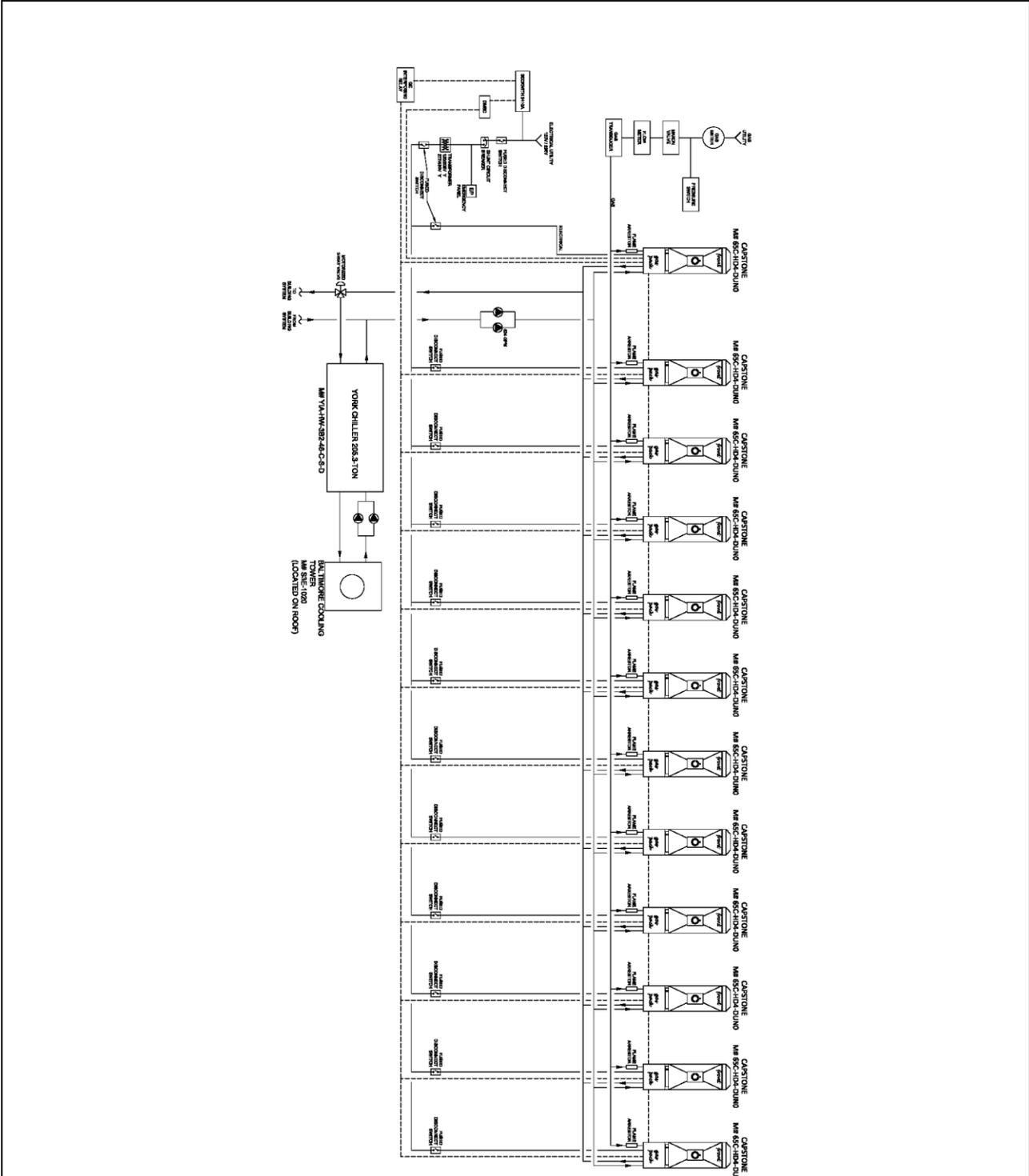
Vendor Statement

- ◆ Achieve ultra-low emissions and reliable electrical/thermal generation from natural gas.
- ◆ One moving part minimal maintenance and downtime.
- ◆ Patented air bearing requires no lubricating oil or coolant in our design.
- ◆ 9 year bumper to bumper factory protection plan with remote monitoring and data mining dashboard.
- ◆ Integrated utility synchronization and protection: inverter based.
- ◆ The unit is small with a modular design allowing for easy installation.
- ◆ Reliable, with tens of millions of run hours and counting.
- ◆ The boiler that makes electricity and provides back up power.

RSP Systems

780-DM-iCHP-CCHP

780kW





RSP Systems

C200-4-DM-HW

800kW

Description

Type of prime mover	Number of prime mover units	Synchronous or Inverter	Type	Black-Start Capable	Qualification Status
Microturbine	4	Inverter	CHP-HW	Yes	Conditionally qualified

Performance

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	Hot Water to Building @ 180°F			NOx lbs/MWh
					MBtu/h	Return °F	Net System Efficiency % (HHV)	
100%	59°F	9148	760	28%	3244	170	64%	0.40
	95°F	8560	672	27%	2884	170	61%	0.40
75%	59°F							
	95°F							
50%	59°F							
	95°F							

Notes: 1 – All performance data based on fuel energy content of 1000 Btu/CF HHV

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*	21'	48'-4"	14'	36,550
Core system based on minimum width*	21'	48'-4"	14'	
Heat Rejection subsystem*	N/A	N/A	N/A	
Largest part for delivery	6'-6"	7'-6"	14'	6,440
Heaviest part for delivery	6'-6"	7'-6"	14'	6,440

*Includes maintenance clearances.

Vendor Information

RSP Systems 528 Craven Street Bronx, NY 10474 718- 991-6999 sales@cogennyc.com www.rsp-systems.com

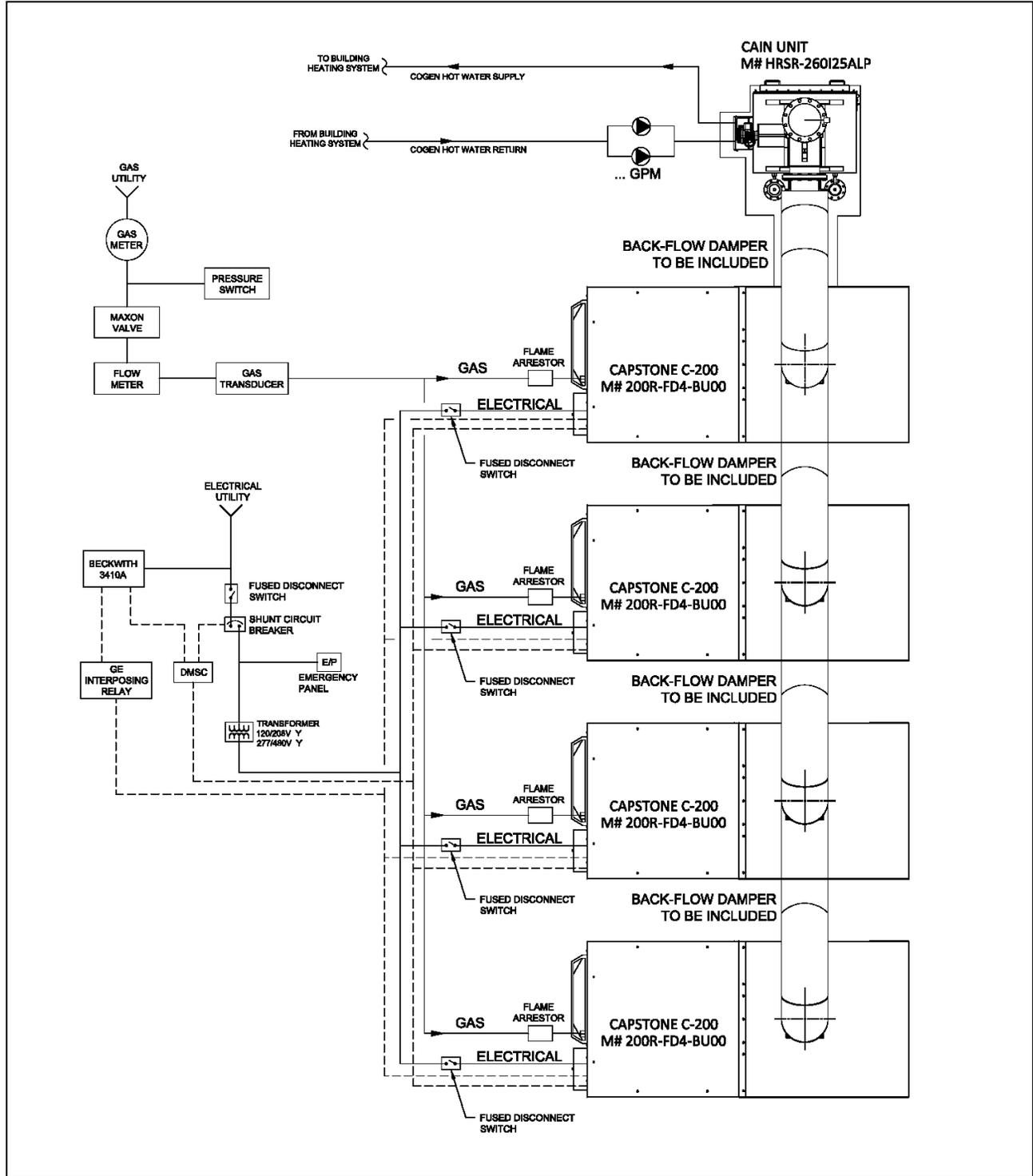
Vendor Statement

- ◆ Achieve ultra-low emissions and reliable electrical/thermal generation from natural gas.
- ◆ One moving part minimal maintenance and downtime.
- ◆ Patented air bearing requires no lubricating oil or coolant in our design.
- ◆ 9 year bumper to bumper factory protection plan with remote monitoring and data mining dashboard.
- ◆ Integrated utility synchronization and protection: inverter based.
- ◆ The unit is small with a modular design allowing for easy installation.
- ◆ Reliable, with tens of millions of run hours and counting.
- ◆ The boiler that makes electricity and provides back up power.

RSP Systems

C200-4-DM-HW

800kW





RSP Systems

C200-4-DM-Steam

800kW

Description

Type of prime mover	Number of prime mover units	Synchronous or Inverter	Type	Black-Start Capable	Qualification Status
Microturbine	4	Inverter	CHP Steam	Yes	Conditionally qualified

Performance

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	Steam @ 5 psig Operating			NOx lbs/MWh
					MBtu/h	Water Inlet Temperature °F	Net System Efficiency % (HHV)	
100%	59°F	9147	760	28%	2744	212	58%	0.40
	95°F	8561	672	27%	3062	212	62%	0.40
75%	59°F							
	95°F							
50%	59°F							
	95°F							

Notes: 1 – All performance data based on fuel energy content of 1000 Btu/CF HHV

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*	21'	48'-4"	11'-4"	45,050
Core system based on minimum width*	21'	48'-4"	11'-4"	
Heat Rejection subsystem*	N/A	N/A	N/A	
Largest part for delivery	7'-8"	13'-5"	10'-8"	14,950
Heaviest part for delivery	7'-8"	13'-5"	10'-8"	14,950

*Includes maintenance clearances.

Vendor Information

RSP Systems 528 Craven Street Bronx, NY 10474 718- 991-6999 sales@cogennyc.com www.rsp-systems.com

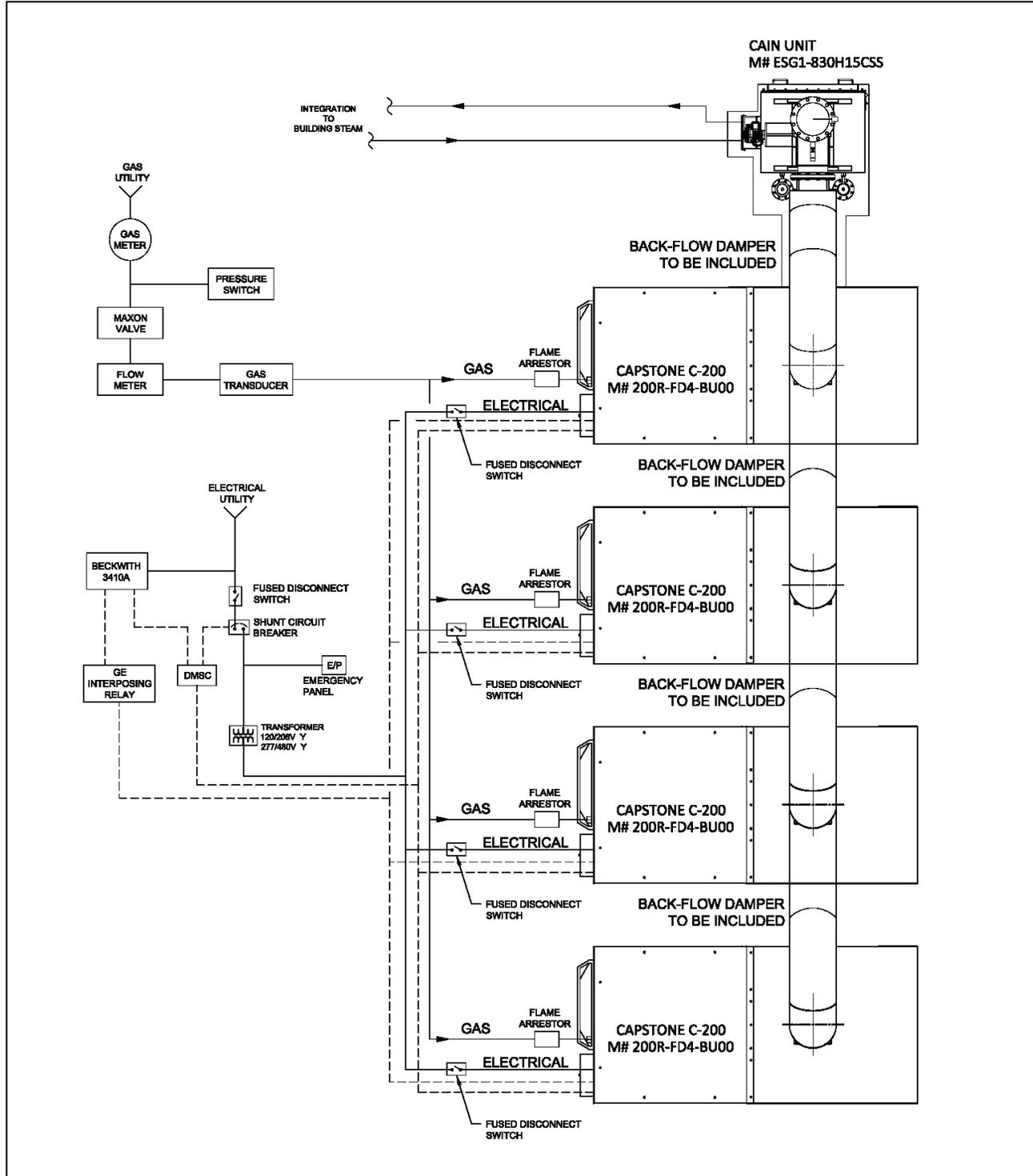
Vendor Statement

- ◆ Achieve ultra-low emissions and reliable electrical/thermal generation from natural gas.
- ◆ One moving part minimal maintenance and downtime.
- ◆ Patented air bearing requires no lubricating oil or coolant in our design.
- ◆ 9 year bumper to bumper factory protection plan with remote monitoring and data mining dashboard.
- ◆ Integrated utility synchronization and protection: inverter based.
- ◆ The unit is small with a modular design allowing for easy installation.
- ◆ Reliable, with tens of millions of run hours and counting.
- ◆ The boiler that makes electricity and provides back up power.

RSP Systems

C200-4-DM-Steam

800kW





RSP Systems
Description

C200-4-DM-CCHP

800 kW

Type of prime mover	Number of prime mover units	Synchronous or Inverter	Type	Black-Start Capable	Qualification Status
Microturbine	4	Inverter	CCHP	Yes	Conditionally qualified

Performance - Heating Mode

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	Hot Water to Building @ 180°F			NOx lbs/MWh
					MBtu/h	Return °F	Net System Efficiency % (HHV)	
100%	59°F	9147	760	28%	3052	170	62%	0.40
	95°F	8561	672	27%	3315	170	66%	0.40
75%	59°F							
	95°F							
50%	59°F							
	95°F							

¹ All performance data based on fuel energy content of 1000 Btu/CF HHV

Performance – Cooling Mode

Ambient DB/WB	Fuel in MBtu/h (HHV)	Net Prime Mover kW	Prime Mover Hot Water Supply to Chiller			Chiller			Chiller Cooling Tower Water		
			MBtu/h	Supply °F	Return °F	Capacity ² tons	Coefficient of Performance	Parasitic kW	gpm	Supply °F	Return °F
95/78°F	8561	672	3650	210	200	200	0.7	7.3	780	85	100

² Using heat from the prime mover. 45 °F chilled water output.

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*	59'	47'-4"	14'	56,540
Core system based on minimum width*	59'	47'-4"	14'	
PM Heat Rejection subsystem*	20'	9'-10"	12'	20,320
Chiller Cooling Tower*	5'	18'-6"	8'-8"	20,000
Largest part for delivery	5'	18'-6"	8'-8"	20,000
Heaviest part for delivery	59'	47'-4"	14'	56,540

*Includes maintenance clearances.

Vendor Information

RSP Systems 528 Craven Street Bronx, NY 10474 718- 991-6999 sales@cogennyc.com www.rsp-systems.com

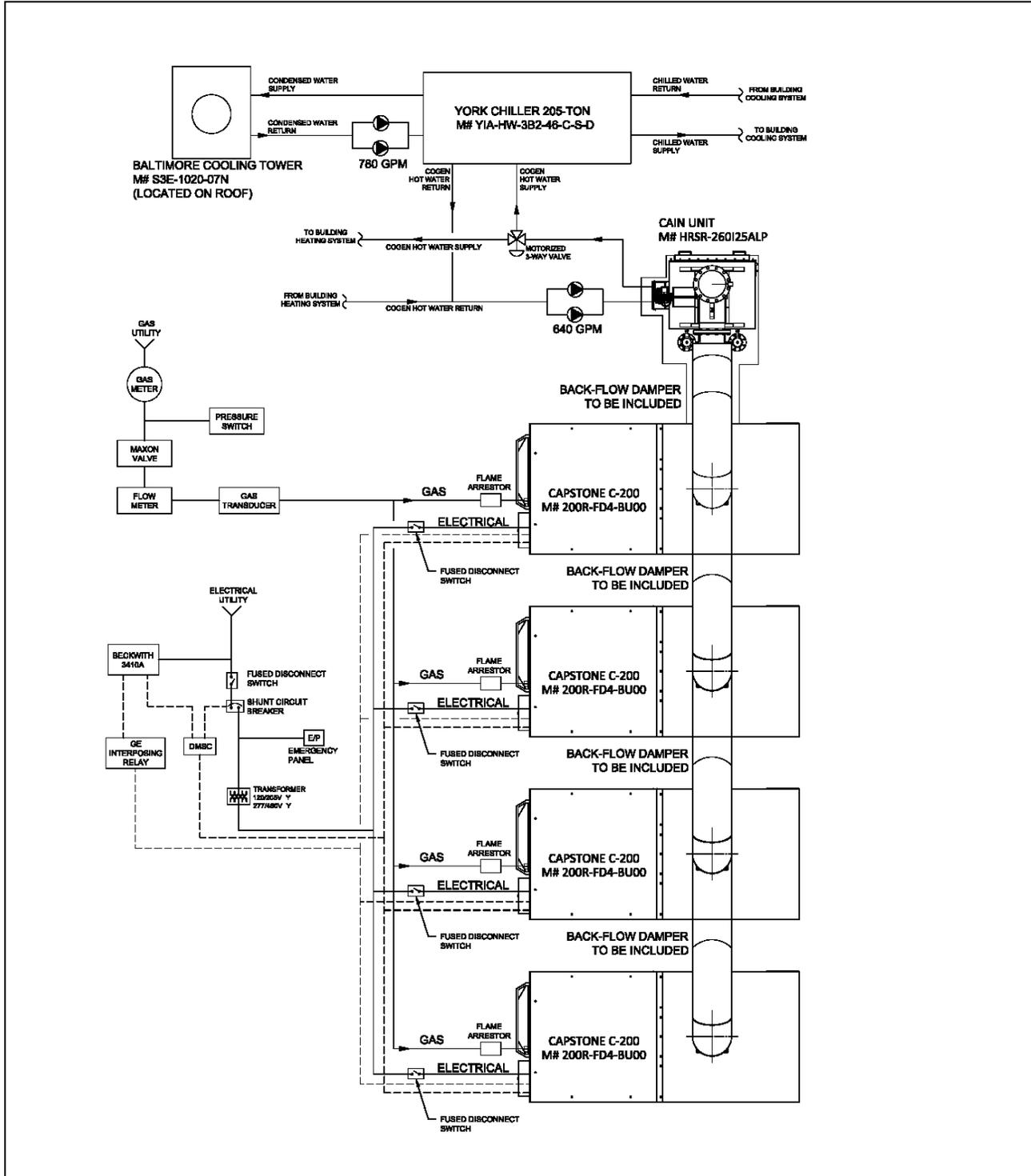
Vendor Statement

- ◆ Achieve ultra-low emissions and reliable electrical/thermal generation from natural gas.
- ◆ One moving part minimal maintenance and downtime.
- ◆ Patented air bearing requires no lubricating oil or coolant in our design.
- ◆ 9 year bumper to bumper factory protection plan with remote monitoring and data mining dashboard.
- ◆ Integrated utility synchronization and protection: inverter based.
- ◆ The unit is small with a modular design allowing for easy installation.
- ◆ Reliable, with tens of millions of run hours and counting.
- ◆ The boiler that makes electricity and provides back up power.

RSP Systems

C200-4-DM-CCHP

800 kW





RSP Systems

C800-DM-Cain HW

800kW

Description

Type of prime mover	Number of prime mover units	Synchronous or Inverter	Type	Black-Start Capable	Qualification Status
Microturbine	4	Inverter	CHP-HW	Yes	Conditionally qualified

Performance

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	Hot Water to Building @ 180°F			NOx lbs/MWh
					MBtu/h	Return °F	Net System Efficiency % (HHV)	
100%	59°F	9148	760	28%	3244	170	64%	0.40
	95°F	8560	672	27%	2884	170	61%	0.40
75%	59°F							
	95°F							
50%	59°F							
	95°F							

Notes: 1 – All performance data based on fuel energy content of 1000 Btu/CF HHV

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*	19'-6"	38'	14'	47,620
Core system based on minimum width*	19'-6"	38'	14'	
Heat Rejection subsystem*	N/A	N/A	N/A	
Largest part for delivery	7'-10"	30'	9'-8"	41,500
Heaviest part for delivery	7'-10"	30'	9'-8"	41,500

*Includes maintenance clearances.

Vendor Information

RSP Systems 528 Craven Street Bronx, NY 10474 718- 991-6999 sales@cogennyc.com www.rsp-systems.com

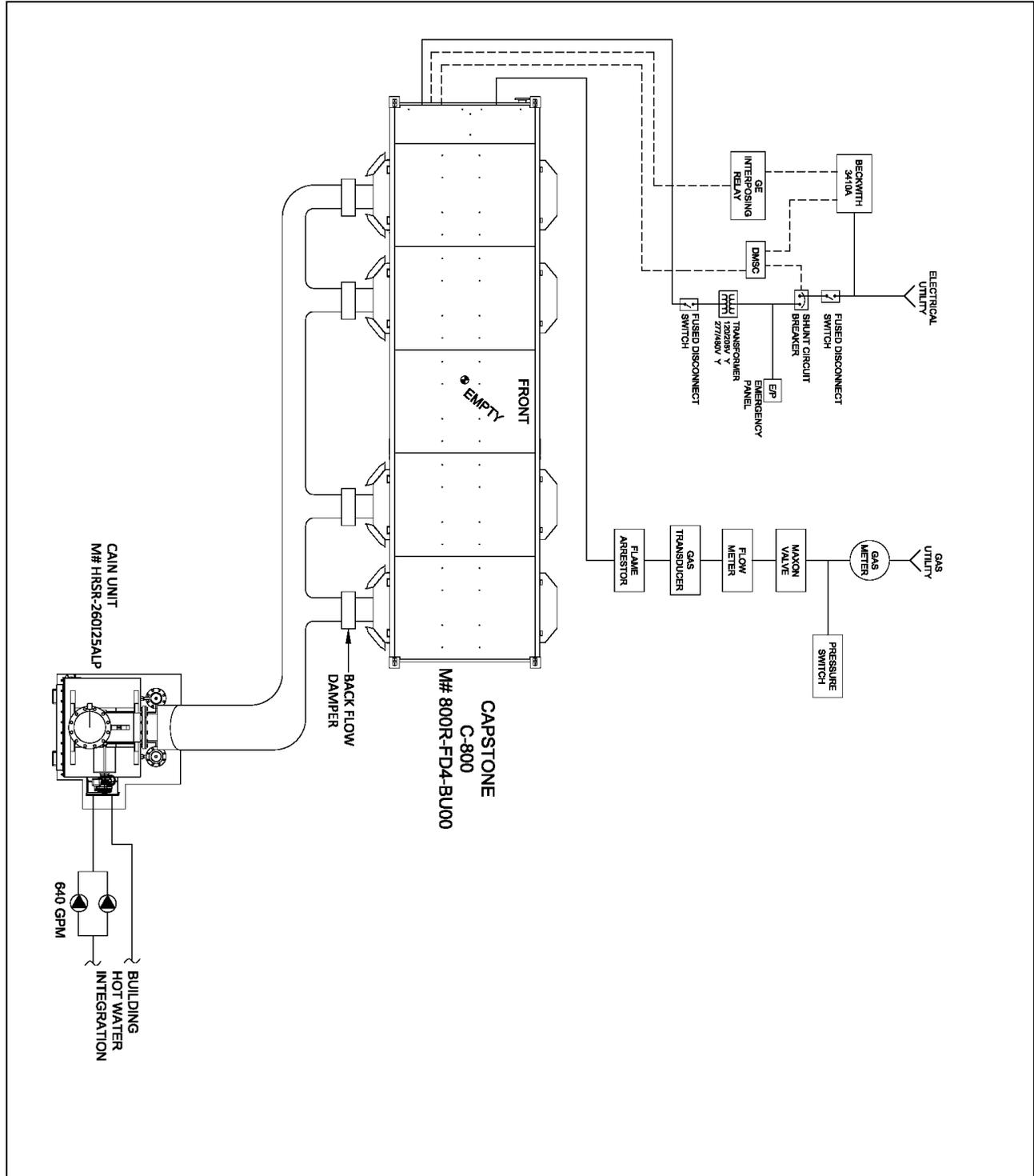
Vendor Statement

- ◆ Achieve ultra-low emissions and reliable electrical/thermal generation from natural gas.
- ◆ One moving part minimal maintenance and downtime.
- ◆ Patented air bearing requires no lubricating oil or coolant in our design.
- ◆ 9 year bumper to bumper factory protection plan with remote monitoring and data mining dashboard.
- ◆ Integrated utility synchronization and protection: inverter based.
- ◆ The unit is small with a modular design allowing for easy installation.
- ◆ Reliable, with tens of millions of run hours and counting.
- ◆ The boiler that makes electricity and provides back up power.

RSP Systems

C800-DM-Cain HW

800kW





RSP Systems

C800-DM-Cain Steam

800kW

Description

Type of prime mover	Number of prime mover units	Synchronous or Inverter	Type	Black-Start Capable	Qualification Status
Microturbine	4	Inverter	CHP Steam	Yes	Conditionally qualified

Performance

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	Steam @ 5 psig Operating			NOx lbs/MWh
					MBtu/h	Water Inlet Temperature °F	Net System Efficiency % (HHV)	
100%	59°F	9147	760	28%	2744	212	58%	0.40
	95°F	8561	672	27%	3062	212	62%	0.40
75%	59°F							
	95°F							
50%	59°F							
	95°F							

Notes: 1 – All performance data based on fuel energy content of 1000 Btu/CF HHV

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*	19'-6"	38'	14'	56,600
Core system based on minimum width*	19'-6"	38'	14'	
Heat Rejection subsystem*	N/A	N/A	N/A	
Largest part for delivery	7'-10"	30'	9'-8"	41,500
Heaviest part for delivery	7'-10"	30'	9'-8"	41,500

*Includes maintenance clearances.

Vendor Information

RSP Systems 528 Craven Street Bronx, NY 10474 718- 991-6999 sales@cogennyc.com www.rsp-systems.com

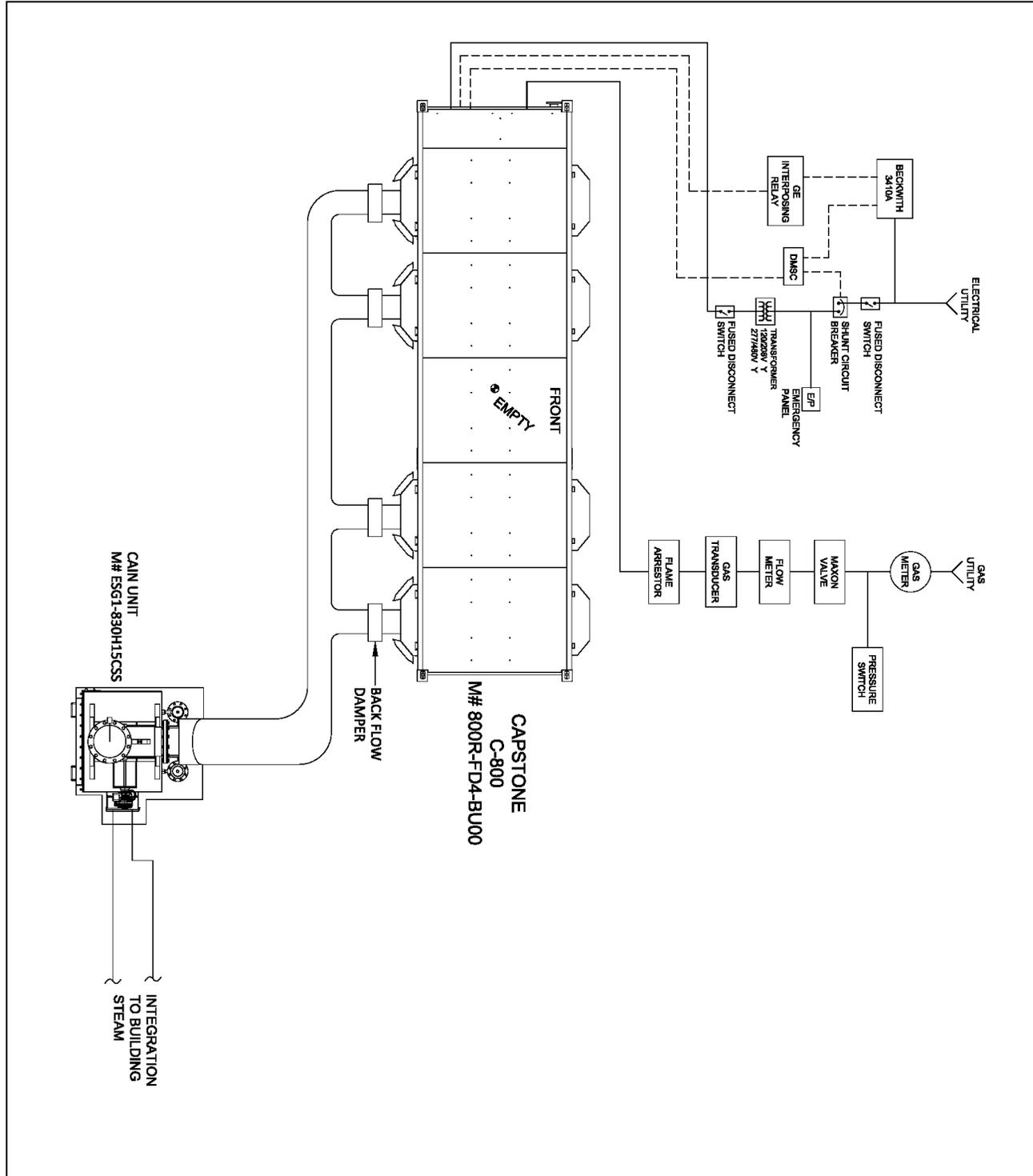
Vendor Statement

- ◆ Achieve ultra-low emissions and reliable electrical/thermal generation from natural gas.
- ◆ One moving part minimal maintenance and downtime.
- ◆ Patented air bearing requires no lubricating oil or coolant in our design.
- ◆ 9 year bumper to bumper factory protection plan with remote monitoring and data mining dashboard.
- ◆ Integrated utility synchronization and protection: inverter based.
- ◆ The unit is small with a modular design allowing for easy installation.
- ◆ Reliable, with tens of millions of run hours and counting.
- ◆ The boiler that makes electricity and provides back up power.

RSP Systems

C800-DM-Cain Steam

800kW





RSP Systems
Description

C800-DM- Cain CCHP

800 kW

Type of prime mover	Number of prime mover units	Synchronous or Inverter	Type	Black-Start Capable	Qualification Status
Microturbine	4	Inverter	CCHP	Yes	Conditionally qualified

Performance - Heating Mode

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	Hot Water to Building @ 180°F			NOx lbs/MWh
					MBtu/h	Return °F	Net System Efficiency % (HHV)	
100%	59°F	9147	760	28%	3052	170	62%	0.40
	95°F	8561	672	27%	3315	170	66%	0.40
75%	59°F							
	95°F							
50%	59°F							
	95°F							

¹ All performance data based on fuel energy content of 1000 Btu/CF HHV

Performance – Cooling Mode

Ambient DB/WB	Fuel in MBtu/h (HHV)	Net Prime Mover kW	Prime Mover Hot Water Supply to Chiller			Chiller			Chiller Cooling Tower Water		
			MBtu/h	Supply °F	Return °F	Capacity ² tons	Coefficient of Performance	Parasitic kW	gpm	Supply °F	Return °F
95/78°F	8561	672	3650	210	200	200	0.7	7.3	780	85	100

² Using heat from the prime mover. 45 °F chilled water output.

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*	23'-6"	38'	14'	61,600
Core system based on minimum width*	23'-6"	38'	14'	
PM Heat Rejection subsystem*	N/A	N/A	N/A	
Chiller Cooling Tower*	7'-10"	30'	9'-8"	41,500
Largest part for delivery	7'-10"	30'	9'-8"	41,500
Heaviest part for delivery	23'-6"	38'	14'	61,600

*Includes maintenance clearances.

Vendor Information

RSP Systems 528 Craven Street Bronx, NY 10474 718- 991-6999 sales@cogennyc.com www.rsp-systems.com

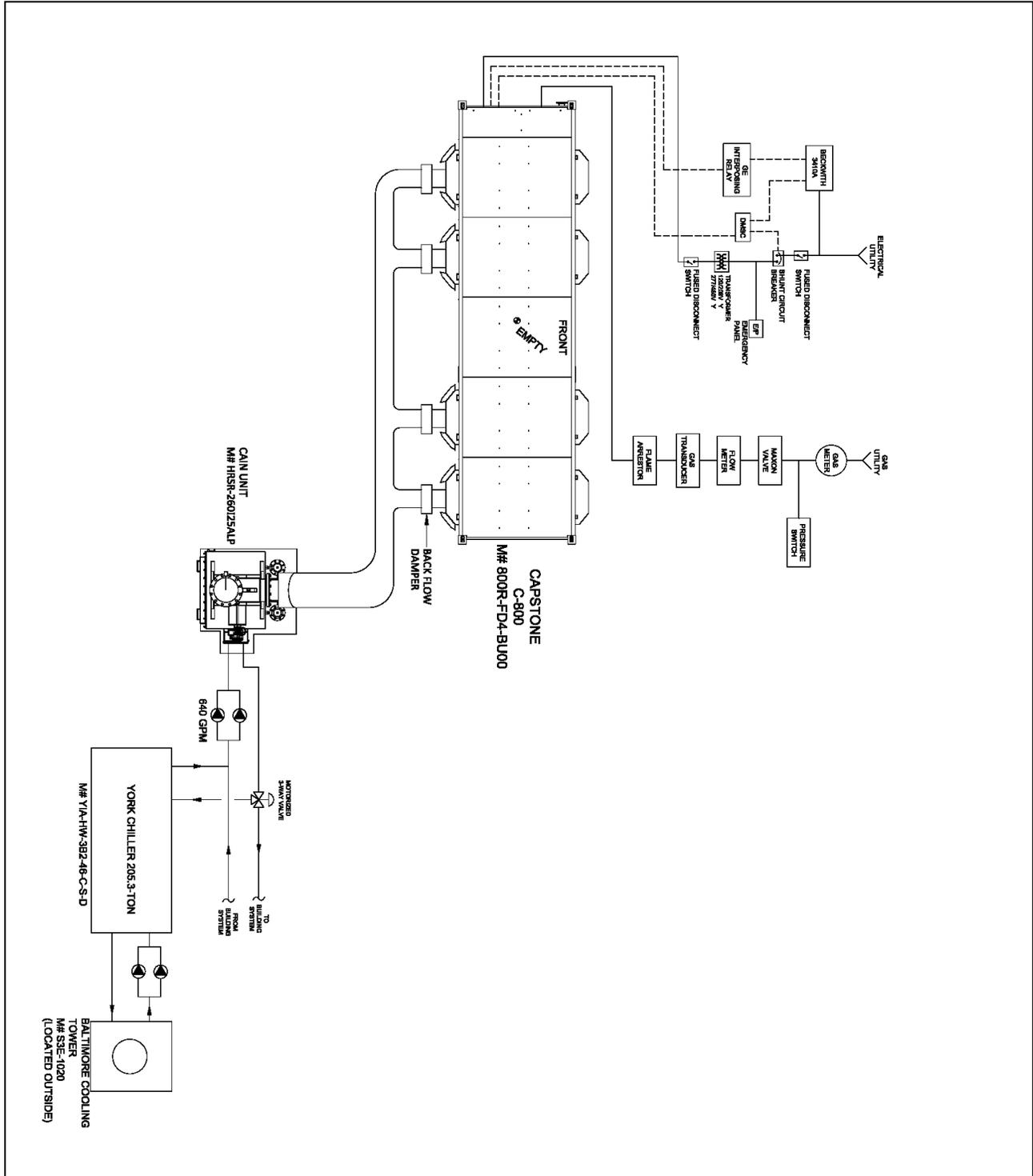
Vendor Statement

- ◆ Achieve ultra-low emissions and reliable electrical/thermal generation from natural gas.
- ◆ One moving part minimal maintenance and downtime.
- ◆ Patented air bearing requires no lubricating oil or coolant in our design.
- ◆ 9 year bumper to bumper factory protection plan with remote monitoring and data mining dashboard.
- ◆ Integrated utility synchronization and protection: inverter based.
- ◆ The unit is small with a modular design allowing for easy installation.
- ◆ Reliable, with tens of millions of run hours and counting.
- ◆ The boiler that makes electricity and provides back up power.

RSP Systems

C800-DM- Cain CCHP

800 kW





RSP Systems

C800S-DM-HW

800kW

Description

Type of prime mover	Number of prime mover units	Synchronous or Inverter	Type	Black-Start Capable	Qualification Status
Microturbine	4	Inverter	CHP-HW	Yes	Conditionally qualified

Performance

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	Hot Water to Building @ 180°F			NOx lbs/MWh
					MBtu/h	Return °F	Net System Efficiency % (HHV)	
100%	59°F	9148	760	28%	3528	160	67%	0.40
	95°F	8560	672	27%	3804	160	71%	0.40
75%	59°F	6884	560	28%	2440	160	63%	0.40
	95°F	6504	480	25%	2656	160	66%	0.40
50%	59°F	4892	360	25%	1628	160	58%	0.40
	95°F	4572	320	24%	1780	160	63%	0.40

Notes: 1 – All performance data based on fuel energy content of 1000 Btu/CF HHV

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*	20'-5"	35'	13'	49,500
Core system based on minimum width*	N/A	N/A	N/A	
Heat Rejection subsystem*	N/A	N/A	N/A	
Largest part for delivery	8'	30'	9'-6"	"41,500
Heaviest part for delivery	8'	30'	9'-6"	41,500

*Includes maintenance clearances.

Vendor Information

RSP Systems 528 Craven Street Bronx, NY 10474 718- 991-6999 sales@cogennyc.com www.rsp-systems.com

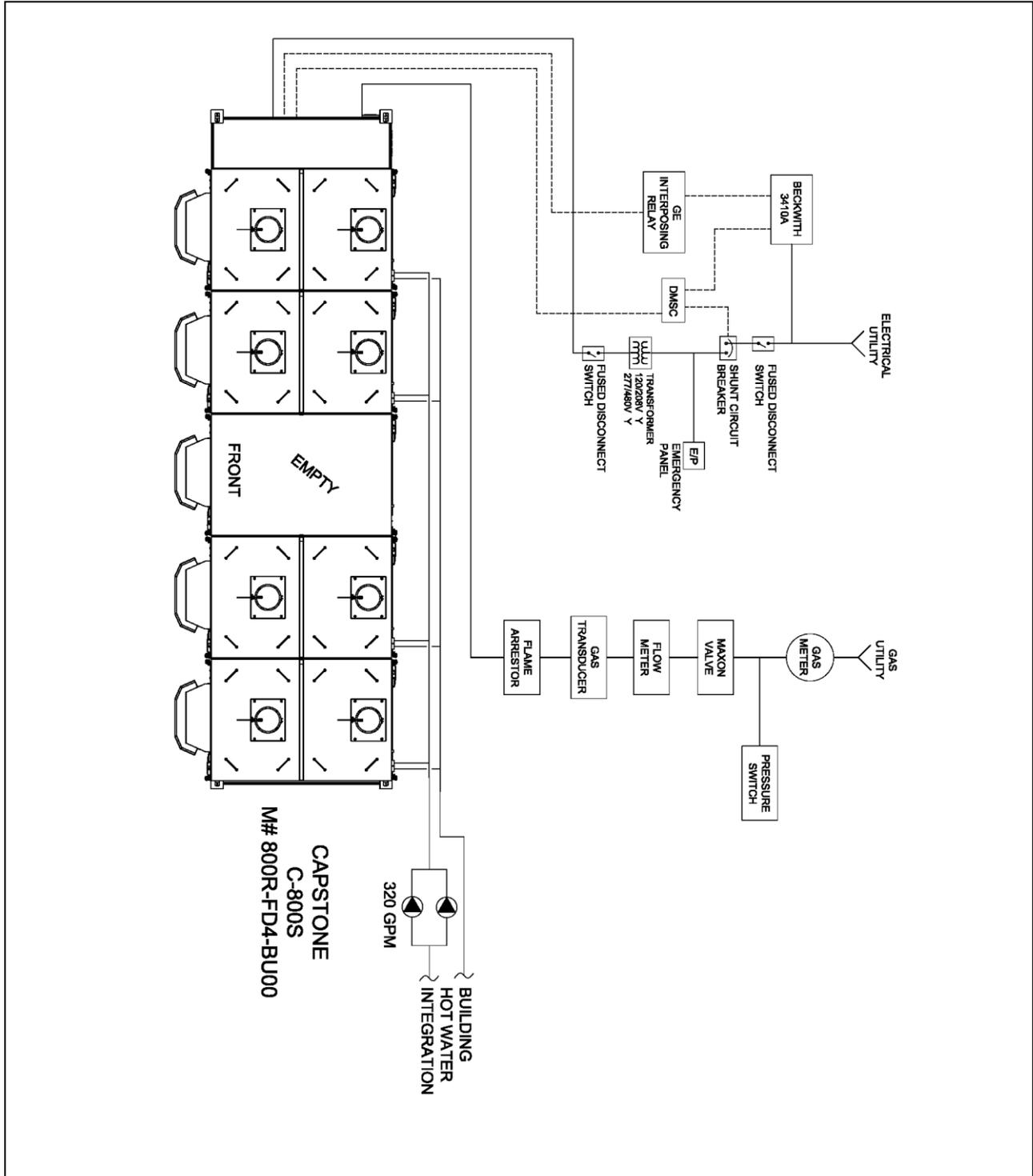
Vendor Statement

- ◆ Achieve ultra-low emissions and reliable electrical/thermal generation from natural gas.
- ◆ One moving part minimal maintenance and downtime.
- ◆ Patented air bearing requires no lubricating oil or coolant in our design.
- ◆ 9 year bumper to bumper factory protection plan with remote monitoring and data mining dashboard.
- ◆ Integrated utility synchronization and protection: inverter based.
- ◆ The unit is small with a modular design allowing for easy installation.
- ◆ Reliable, with tens of millions of run hours and counting.
- ◆ The boiler that makes electricity and provides back up power.

RSP Systems

C800S-DM-HW

800kW





RSP Systems

C200-5-DM-HW

1000kW

Description

Type of prime mover	Number of prime mover units	Synchronous or Inverter	Type	Black-Start Capable	Qualification Status
Microturbine	5	Inverter	CHP-HW	Yes	Conditionally qualified

Performance

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	Hot Water to Building @ 180°F			NOx lbs/MWh
					MBtu/h	Return °F	Net System Efficiency % (HHV)	
100%	59°F	11435	950	28%	4055	170	64%	0.40
	95°F	10700	840	27%	3605	170	61%	0.40
75%	59°F							
	95°F							
50%	59°F							
	95°F							

Notes: 1 – All performance data based on fuel energy content of 1000 Btu/CF HHV

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*	19'-6"	38'	12'	43,550
Core system based on minimum width*	19'-6"	38'	12'	
Heat Rejection subsystem*	N/A	N/A	N/A	
Largest part for delivery	6'-6"	7'-6"	12'	5,900
Heaviest part for delivery	6'-6"	7'-6"	12'	5,900

*Includes maintenance clearances.

Vendor Information

RSP Systems 528 Craven Street Bronx, NY 10474 718- 991-6999 sales@cogennyc.com www.rsp-systems.com

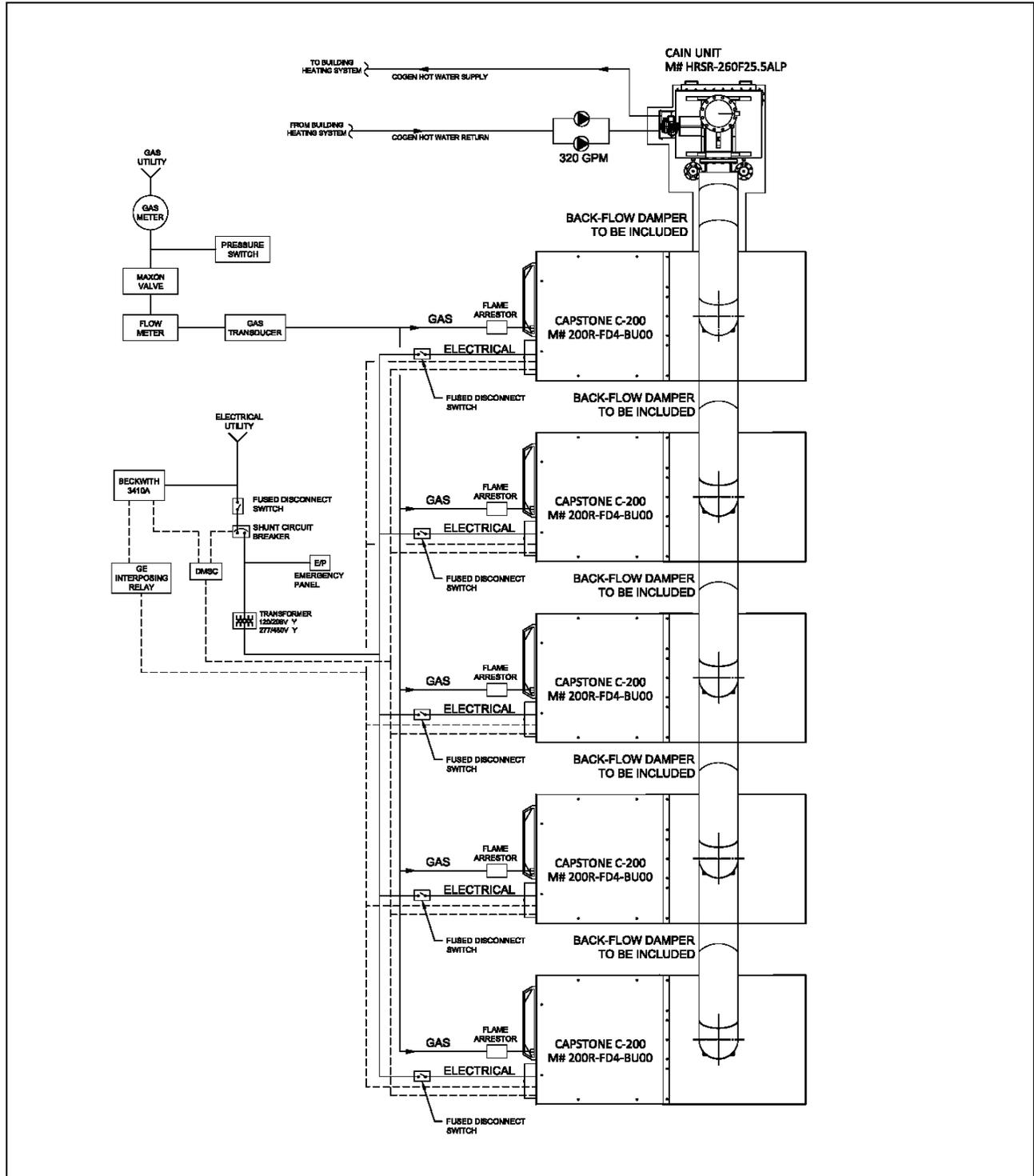
Vendor Statement

- ◆ Achieve ultra-low emissions and reliable electrical/thermal generation from natural gas.
- ◆ One moving part minimal maintenance and downtime.
- ◆ Patented air bearing requires no lubricating oil or coolant in our design.
- ◆ 9 year bumper to bumper factory protection plan with remote monitoring and data mining dashboard.
- ◆ Integrated utility synchronization and protection: inverter based.
- ◆ The unit is small with a modular design allowing for easy installation.
- ◆ Reliable, with tens of millions of run hours and counting.
- ◆ The boiler that makes electricity and provides back up power.

RSP Systems

C200-5-DM-HW

1000kW



RSP Systems
C200-5-DM- Steam
1000kW
Description

Type of prime mover	Number of prime mover units	Synchronous or Inverter	Type	Black-Start Capable	Qualification Status
Microturbine	5	Inverter	CHP Steam	Yes	Conditionally qualified

Performance

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	Steam @ 5 psig Operating			NOx lbs/MWh
					MBtu/h	Water Inlet Temperature °F	Net System Efficiency % (HHV)	
100%	59°F	11434	950	28%	3486	212	58%	0.40
	95°F	10701	840	27%	3854	212	62%	0.40
75%	59°F							
	95°F							
50%	59°F							
	95°F							

Notes: 1 – All performance data based on fuel energy content of 1000 Btu/CF HHV

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*	19'-6"	38'	15'-5"	54,050
Core system based on minimum width*	19'-6"	38'	15'-5"	
Heat Rejection subsystem*	N/A	N/A	N/A	
Largest part for delivery	13'-5"	7'-10"	10'-4"	16,400
Heaviest part for delivery	13'-5"	7'-10"	10'-4"	16,400

*Includes maintenance clearances.

Vendor Information

RSP Systems 528 Craven Street Bronx, NY 10474 718- 991-6999 sales@cogennyc.com www.rsp-systems.com

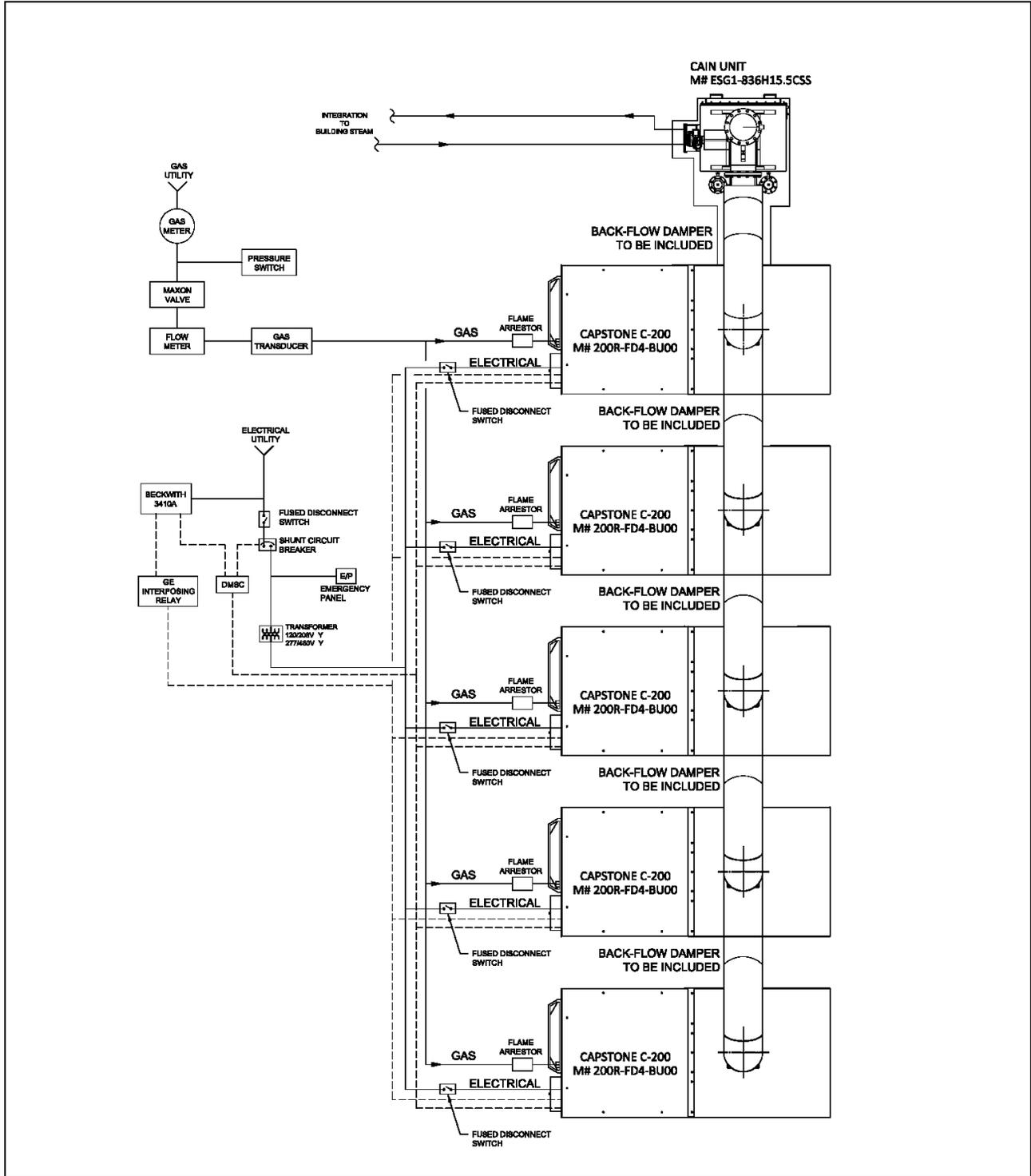
Vendor Statement

<ul style="list-style-type: none"> ◆ Achieve ultra-low emissions and reliable electrical/thermal generation from natural gas. ◆ One moving part minimal maintenance and downtime. ◆ Patented air bearing requires no lubricating oil or coolant in our design. ◆ 9 year bumper to bumper factory protection plan with remote monitoring and data mining dashboard. ◆ Integrated utility synchronization and protection: inverter based. ◆ The unit is small with a modular design allowing for easy installation. ◆ Reliable, with tens of millions of run hours and counting. ◆ The boiler that makes electricity and provides back up power.
--

RSP Systems

C200-5-DM- Steam

1000kW





RSP Systems
Description

C200-5-DM-CCHP

1000 kW

Type of prime mover	Number of prime mover units	Synchronous or Inverter	Type	Black-Start Capable	Qualification Status
Microturbine	5	Inverter	CCHP	Yes	Conditionally qualified

Performance - Heating Mode

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	Hot Water to Building @ 180°F			NOx lbs/MWh
					MBtu/h	Return °F	Net System Efficiency % (HHV)	
100%	59°F	11434	950	28%	3774	170	61%	0.40
	95°F	10701	840	27%	4117	170	65%	0.40
75%	59°F							
	95°F							
50%	59°F							
	95°F							

¹ All performance data based on fuel energy content of 1000 Btu/CF HHV

Performance – Cooling Mode

Ambient DB/WB	Fuel in MBtu/h (HHV)	Net Prime Mover kW	Prime Mover Hot Water Supply to Chiller			Chiller			Chiller Cooling Tower Water		
			MBtu/h	Supply °F	Return °F	Capacity ² tons	Coefficient of Performance	Parasitic kW	gpm	Supply °F	Return °F
95/78°F	10701	840	4401	210	200	250	0.7	7.3	1070	85	100

² Using heat from the prime mover. 45 °F chilled water output.

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*	59'	56'-6"	17'-6"	67,950
Core system based on minimum width*	59'	56'-6"	17'-6"	
PM Heat Rejection subsystem*	21'-6"	11'-10"	12'-3"	25,200
Chiller Cooling Tower*	8'-10"	7'-8"	17'-6"	9,220
Largest part for delivery	6'-7"	20'-3"	11'-8"	38,830
Heaviest part for delivery	59'	56'-6"	17'-6"	67,950

*Includes maintenance clearances.

Vendor Information

RSP Systems 528 Craven Street Bronx, NY 10474 718- 991-6999 sales@cogennyc.com www.rsp-systems.com

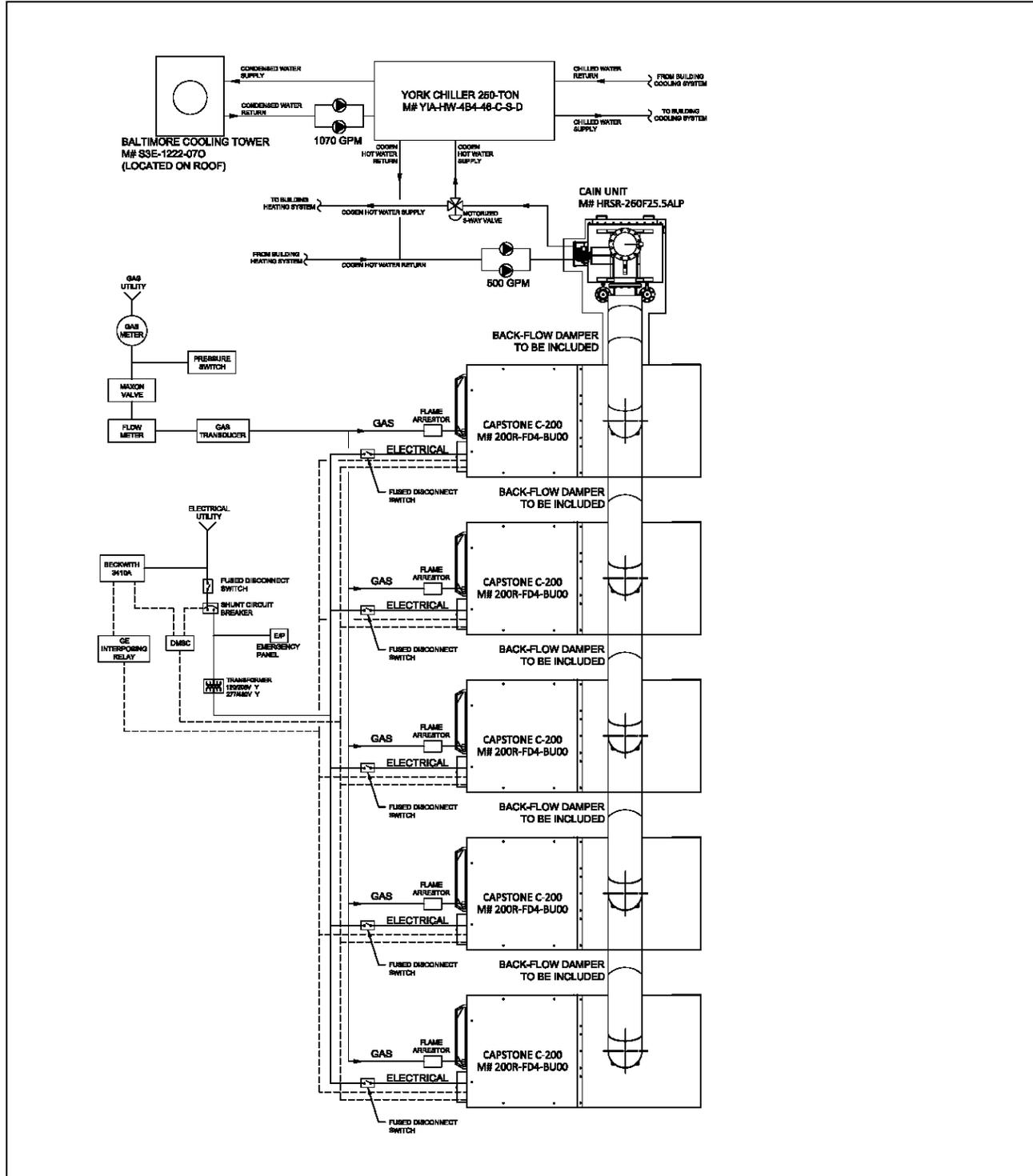
Vendor Statement

- ◆ Achieve ultra-low emissions and reliable electrical/thermal generation from natural gas.
- ◆ One moving part minimal maintenance and downtime.
- ◆ Patented air bearing requires no lubricating oil or coolant in our design.
- ◆ 9 year bumper to bumper factory protection plan with remote monitoring and data mining dashboard.
- ◆ Integrated utility synchronization and protection: inverter based.
- ◆ The unit is small with a modular design allowing for easy installation.
- ◆ Reliable, with tens of millions of run hours and counting.
- ◆ The boiler that makes electricity and provides back up power.

RSP Systems

C200-5-DM-CCHP

1000 kW





RSP Systems

C1000-DM-Cain HW

1000kW

Description

Type of prime mover	Number of prime mover units	Synchronous or Inverter	Type	Black-Start Capable	Qualification Status
Microturbine	5	Inverter	CHP-HW	Yes	Conditionally qualified

Performance

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	Hot Water to Building @ 180°F			NOx lbs/MWh
					MBtu/h	Return °F	Net System Efficiency % (HHV)	
100%	59°F	11435	950	28%	4055	170	64%	0.40
	95°F	10700	840	27%	3605	170	61%	0.40
75%	59°F							
	95°F							
50%	59°F							
	95°F							

Notes: 1 – All performance data based on fuel energy content of 1000 Btu/CF HHV

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*	19'-6"	38'	15'-5"	55,500
Core system based on minimum width*	19'-6"	38'	15'-5"	
Heat Rejection subsystem*	N/A	N/A	N/A	
Largest part for delivery	7'-10"	30'	9'-8"	48,700
Heaviest part for delivery	7'-10"	30'	9'-8"	48,700

*Includes maintenance clearances.

Vendor Information

RSP Systems 528 Craven Street Bronx, NY 10474 718- 991-6999 sales@cogennyc.com www.rsp-systems.com

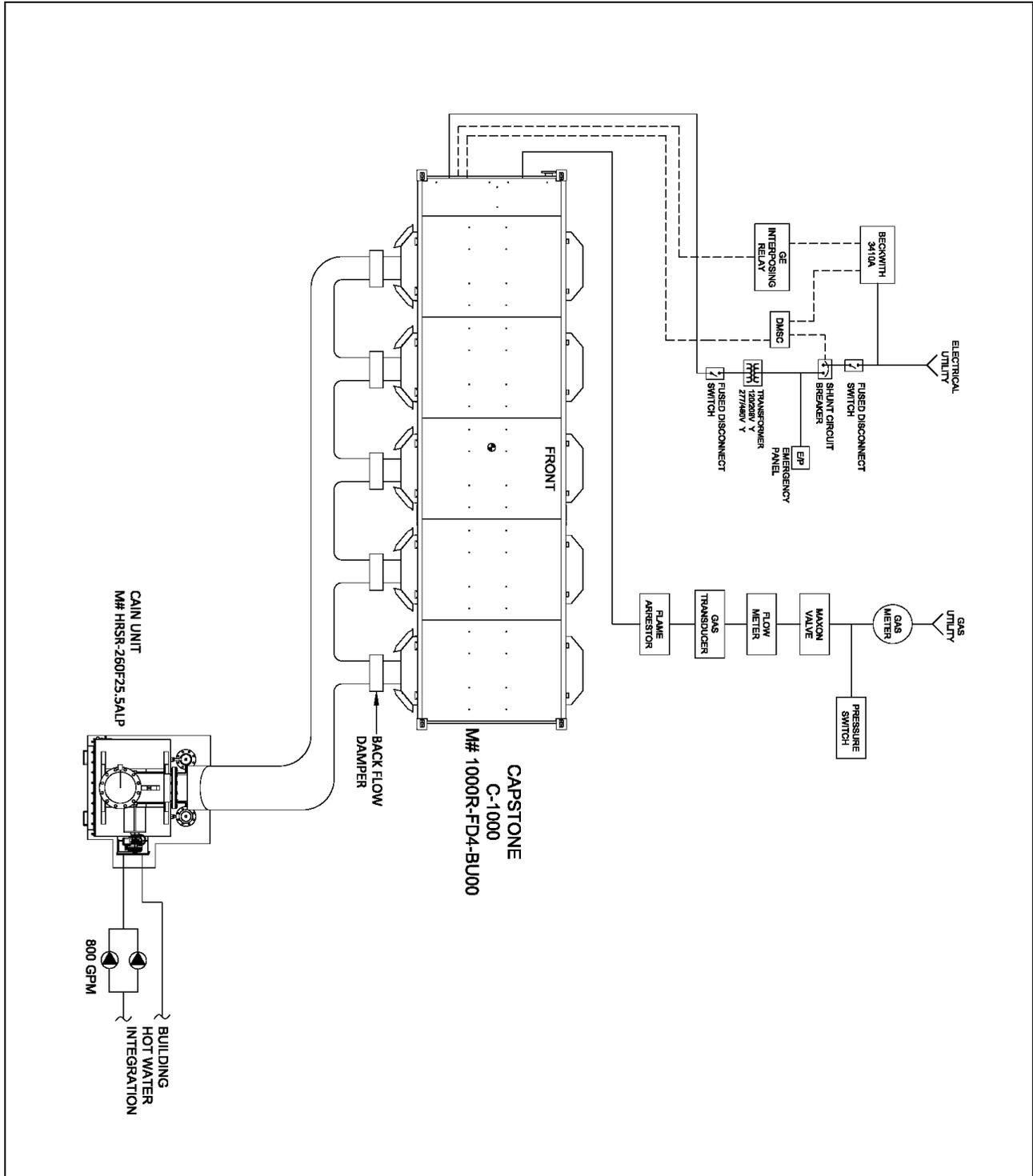
Vendor Statement

- ◆ Achieve ultra-low emissions and reliable electrical/thermal generation from natural gas.
- ◆ One moving part minimal maintenance and downtime.
- ◆ Patented air bearing requires no lubricating oil or coolant in our design.
- ◆ 9 year bumper to bumper factory protection plan with remote monitoring and data mining dashboard.
- ◆ Integrated utility synchronization and protection: inverter based.
- ◆ The unit is small with a modular design allowing for easy installation.
- ◆ Reliable, with tens of millions of run hours and counting.
- ◆ The boiler that makes electricity and provides back up power.

RSP Systems

C1000-DM-Cain HW

1000kW





RSP Systems

C1000-DM-Cain Steam

1000kW

Description

Type of prime mover	Number of prime mover units	Synchronous or Inverter	Type	Black-Start Capable	Qualification Status
Microturbine	5	Inverter	CHP Steam	Yes	Conditionally qualified

Performance

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	Steam @ 5 psig Operating			NOx lbs/MWh
					MBtu/h	Water Inlet Temperature °F	Net System Efficiency % (HHV)	
100%	59°F	11434	950	28%	3486	212	58%	0.40
	95°F	10701	840	27%	3854	212	62%	0.40
75%	59°F							
	95°F							
50%	59°F							
	95°F							

Notes: 1 – All performance data based on fuel energy content of 1000 Btu/CF HHV

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*	19'-6"	38'	15'-5"	55,500
Core system based on minimum width*	19'-6"	38'	15'-5"	
Heat Rejection subsystem*	N/A	N/A	N/A	
Largest part for delivery	7'-10"	30'	9'-8"	48,700
Heaviest part for delivery	7'-10"	30'	9'-8"	48,7000

*Includes maintenance clearances.

Vendor Information

RSP Systems 528 Craven Street Bronx, NY 10474 718- 991-6999 sales@cogennyc.com www.rsp-systems.com

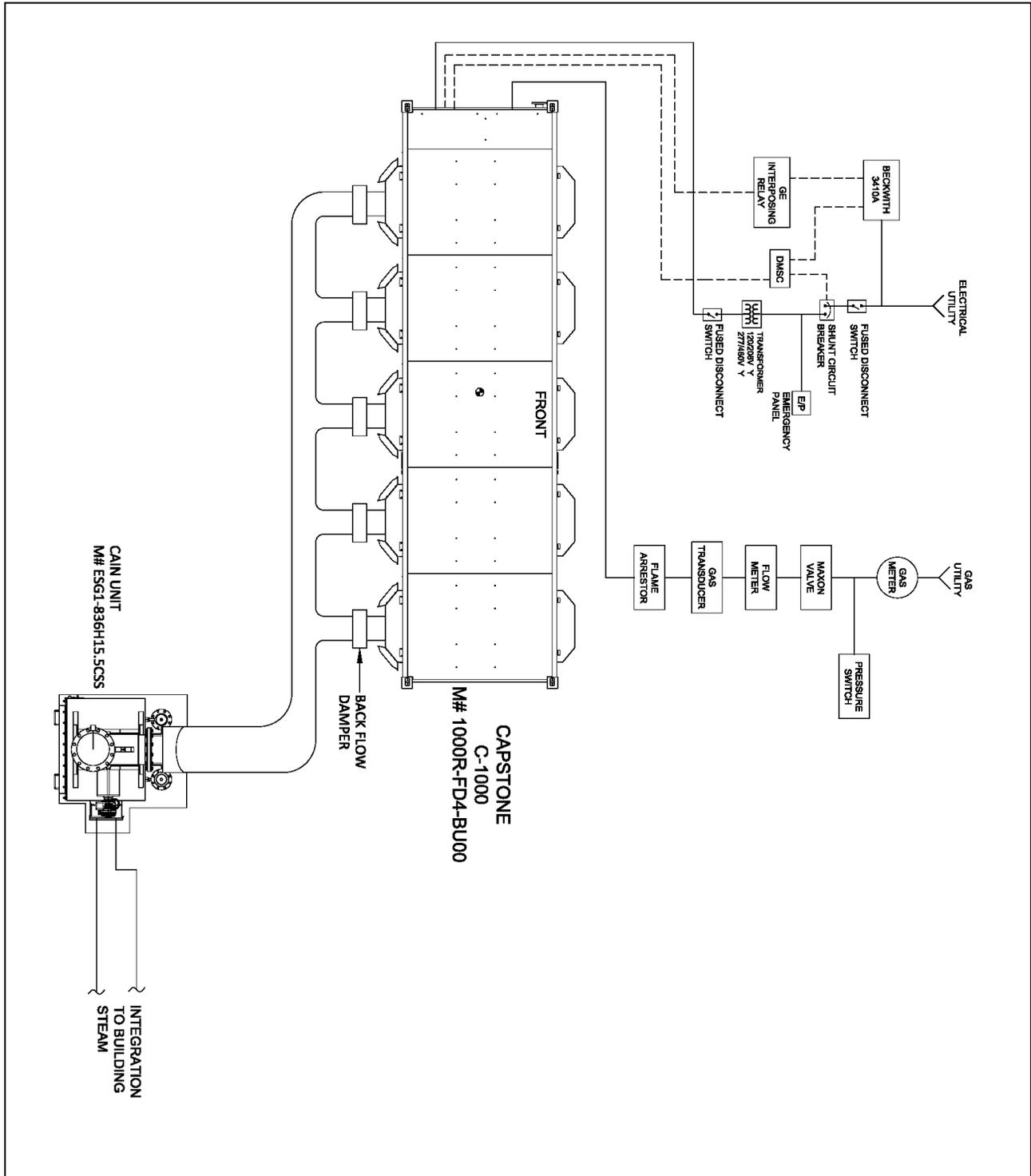
Vendor Statement

- ◆ Achieve ultra-low emissions and reliable electrical/thermal generation from natural gas.
- ◆ One moving part minimal maintenance and downtime.
- ◆ Patented air bearing requires no lubricating oil or coolant in our design.
- ◆ 9 year bumper to bumper factory protection plan with remote monitoring and data mining dashboard.
- ◆ Integrated utility synchronization and protection: inverter based.
- ◆ The unit is small with a modular design allowing for easy installation.
- ◆ Reliable, with tens of millions of run hours and counting.
- ◆ The boiler that makes electricity and provides back up power.

RSP Systems

C1000-DM-Cain Steam

1000kW





RSP Systems
Description

C1000-DM- Cain CCHP

1000 kW

Type of prime mover	Number of prime mover units	Synchronous or Inverter	Type	Black-Start Capable	Qualification Status
Microturbine	5	Inverter	CCHP	Yes	Conditionally qualified

Performance - Heating Mode

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	Hot Water to Building @ 180°F			NOx lbs/MWh
					MBtu/h	Return °F	Net System Efficiency % (HHV)	
100%	59°F	11434	950	28%	3774	170	61%	0.40
	95°F	10701	840	27%	4117	170	65%	0.40
75%	59°F							
	95°F							
50%	59°F							
	95°F							

¹ All performance data based on fuel energy content of 1000 Btu/CF HHV

Performance – Cooling Mode

Ambient DB/WB	Fuel in MBtu/h (HHV)	Net Prime Mover kW	Prime Mover Hot Water Supply to Chiller			Chiller			Chiller Cooling Tower Water		
			MBtu/h	Supply °F	Return °F	Capacity ² tons	Coefficient of Performance	Parasitic kW	gpm	Supply °F	Return °F
95/78°F	10701	840	4401	210	200	250	0.7	7.3	1070	85	100

² Using heat from the prime mover. 45 °F chilled water output.

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*	24'-6"	60'	15'-5"	70,500
Core system based on minimum width*	24'-6"	60'	15'-5"	
PM Heat Rejection subsystem*	N/A	N/A	N/A	
Chiller Cooling Tower*	7'-10"	30'	9'-8"	48,700
Largest part for delivery	7'-10"	30'	9'-8"	48,700
Heaviest part for delivery	24'-6"	60'	15'-5"	70,500

*Includes maintenance clearances.

Vendor Information

RSP Systems 528 Craven Street Bronx, NY 10474 718- 991-6999 sales@cogennyc.com www.rsp-systems.com

Vendor Statement

- ◆ Achieve ultra-low emissions and reliable electrical/thermal generation from natural gas.
- ◆ One moving part minimal maintenance and downtime.
- ◆ Patented air bearing requires no lubricating oil or coolant in our design.
- ◆ 9 year bumper to bumper factory protection plan with remote monitoring and data mining dashboard.
- ◆ Integrated utility synchronization and protection: inverter based.
- ◆ The unit is small with a modular design allowing for easy installation.
- ◆ Reliable, with tens of millions of run hours and counting.
- ◆ The boiler that makes electricity and provides back up power.



RSP Systems

C1000S-DM-HW

1000kW

Description

Type of prime mover	Number of prime mover units	Synchronous or Inverter	Type	Black-Start Capable	Qualification Status
Microturbine	5	Inverter	CHP-HW	Yes	Conditionally qualified

Performance

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	Hot Water to Building @ 180°F			NOx lbs/MWh
					MBtu/h	Return °F	Net System Efficiency % (HHV)	
100%	59°F	11435	950	28%	4410	160	67%	0.40
	95°F	10700	840	27%	4755	160	71%	0.40
75%	59°F	8605	700	28%	3050	160	63%	0.40
	95°F	8130	600	25%	3320	160	66%	0.40
50%	59°F	6115	450	25%	2035	160	58%	0.40
	95°F	5715	400	24%	2225	160	63%	0.40

Notes: 1 – All performance data based on fuel energy content of 1000 Btu/CF HHV

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*	20'-5"	35'	13'	58,700
Core system based on minimum width*	N/A	N/A	N/A	
Heat Rejection subsystem*	N/A	N/A	N/A	
Largest part for delivery	8'	30'	9'-6"	48,700
Heaviest part for delivery	8'	30'	9'-6"	48,700

*Includes maintenance clearances.

Vendor Information

RSP Systems 528 Craven Street Bronx, NY 10474 718- 991-6999 sales@cogennyc.com www.rsp-systems.com

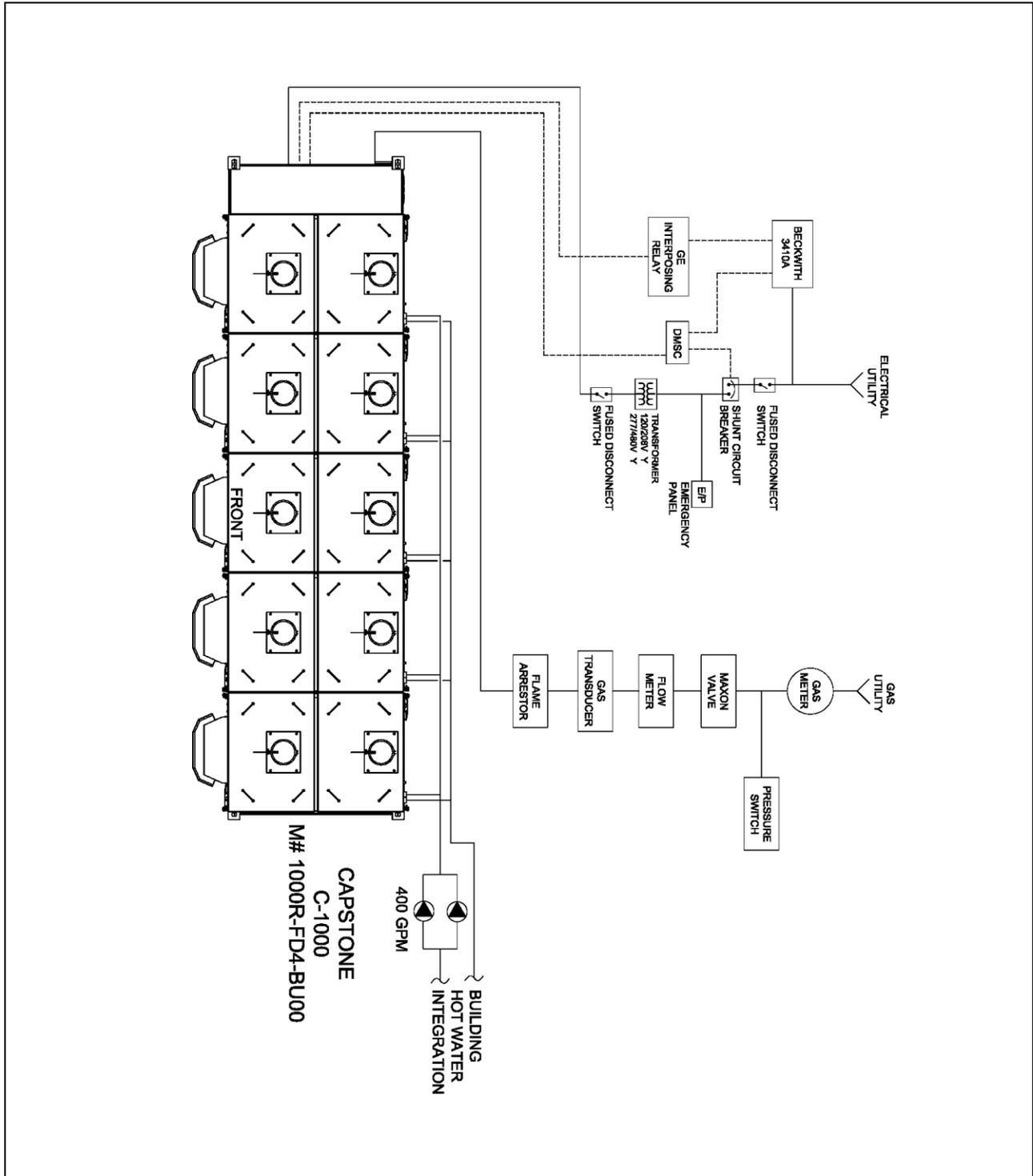
Vendor Statement

- ◆ Achieve ultra-low emissions and reliable electrical/thermal generation from natural gas.
- ◆ One moving part minimal maintenance and downtime.
- ◆ Patented air bearing requires no lubricating oil or coolant in our design.
- ◆ 9 year bumper to bumper factory protection plan with remote monitoring and data mining dashboard.
- ◆ Integrated utility synchronization and protection: inverter based.
- ◆ The unit is small with a modular design allowing for easy installation.
- ◆ Reliable, with tens of millions of run hours and counting.
- ◆ The boiler that makes electricity and provides back up power.

RSP Systems

C1000S-DM-HW

1000kW





RSP Systems
Description

C200-6-DM-CCHP

1200 kW

Type of prime mover	Number of prime mover units	Synchronous or Inverter	Type	Black-Start Capable	Qualification Status
Microturbine	6	Inverter	CCHP	No	Conditionally qualified

Performance - Heating Mode

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	Hot Water to Building @ 180°F			NOx lbs/MWh
					MBtu/h	Return °F	Net System Efficiency % (HHV)	
100%	59°F	13719	1140	28%	5249	170	67%	0.40
	95°F	12840	1008	27%	5686	170	71%	0.40
75%	59°F							
	95°F							
50%	59°F							
	95°F							

¹ All performance data based on fuel energy content of 1000 Btu/CF HHV

Performance – Cooling Mode

Ambient DB/WB	Fuel in MBtu/h (HHV)	Net Prime Mover kW	Prime Mover Hot Water Supply to Chiller			Chiller			Chiller Cooling Tower Water		
			MBtu/h	Supply °F	Return °F	Capacity ² tons	Coefficient of Performance	Parasitic kW	gpm	Supply °F	Return °F
95/78°F	12840	1140	4713	210	200	250	0.7	7.3	1250	85	96

² Using heat from the prime mover. 45 °F chilled water output.

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*	59'	65'-10"	17'-6"	75,950
Core system based on minimum width*	59'	65'-10"	17'-6"	
PM Heat Rejection subsystem*				
Chiller Cooling Tower*	20'-6"	4'-11"	8'-8"	15,880
Largest part for delivery	20'-6"	4'-11"	8'-8"	15,880
Heaviest part for delivery	59'	65'-10"	17'-6"	75,950

*Includes maintenance clearances.

Vendor Information

RSP Systems 528 Craven Street Bronx, NY 10474 718- 991-6999 sales@cogennyc.com www.rsp-systems.com

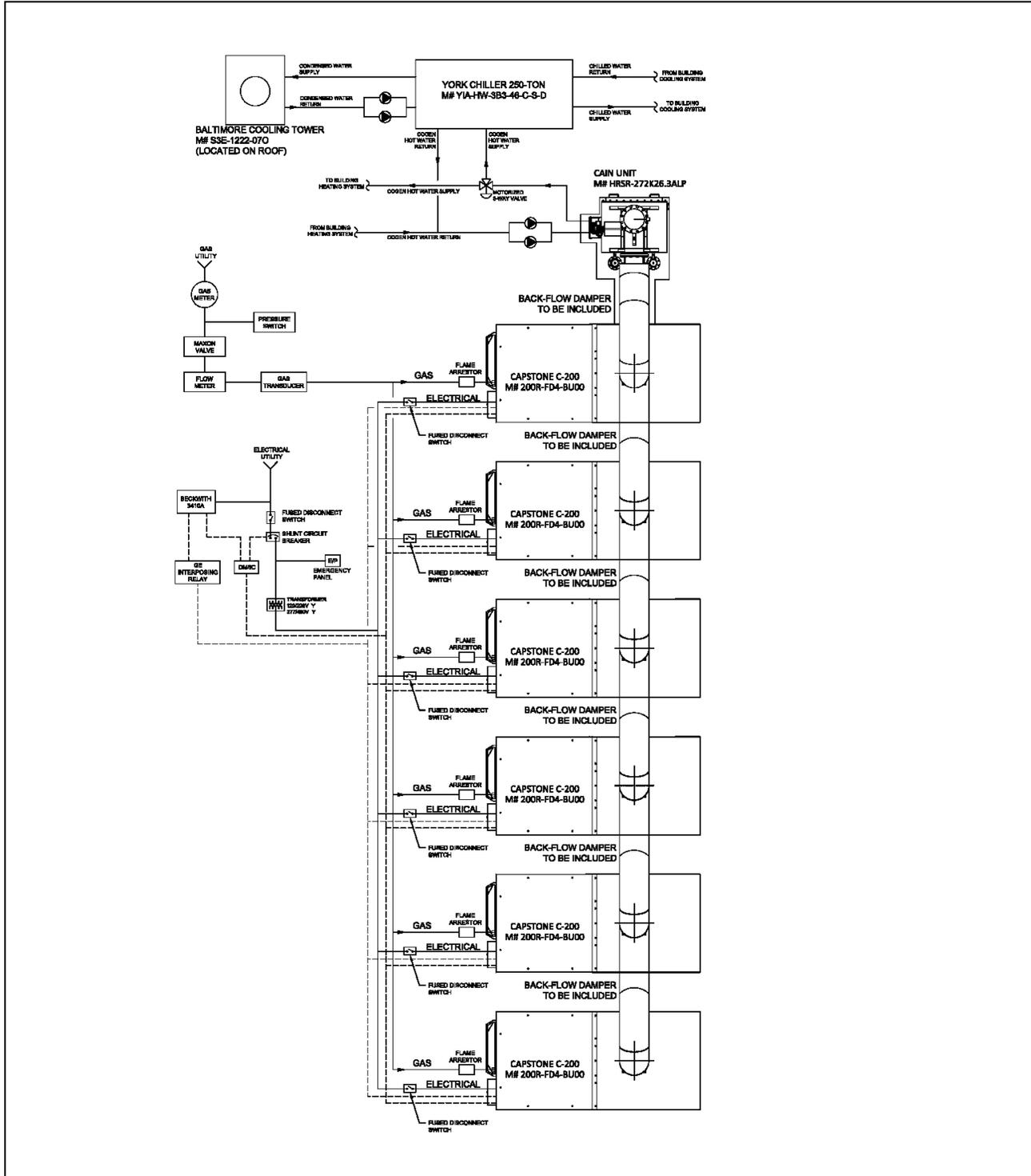
Vendor Statement

- ◆ Achieve ultra-low emissions and reliable electrical/thermal generation from natural gas.
- ◆ One moving part minimal maintenance and downtime.
- ◆ Patented air bearing requires no lubricating oil or coolant in our design.
- ◆ 9 year bumper to bumper factory protection plan with remote monitoring and data mining dashboard.
- ◆ Integrated utility synchronization and protection: inverter based.
- ◆ The unit is small with a modular design allowing for easy installation.
- ◆ Reliable, with tens of millions of run hours and counting.
- ◆ The boiler that makes electricity and provides back up power.

RSP Systems

C200-6-DM-CCHP

1200 kW





RSP Systems

C200-6-DM-HW

1200kW

Description

Type of prime mover	Number of prime mover units	Synchronous or Inverter	Type	Black-Start Capable	Qualification Status
Microturbine	6	Inverter	CHP-HW	Yes	Conditionally qualified

Performance

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	Hot Water to Building @ 180°F			NOx lbs/MWh
					MBtu/h	Return °F	Net System Efficiency % (HHV)	
100%	59°F	13722	1140	28%	5249	170	67%	0.40
	95°F	12840	1008	27%	5686	170	71%	0.40
75%	59°F							
	95°F							
50%	59°F							
	95°F							

Notes: 1 – All performance data based on fuel energy content of 1000 Btu/CF HHV

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*	21'	66'-10"	17'-6"	54,400
Core system based on minimum width*	21'	66'-10"	17'-6"	
Heat Rejection subsystem*				
Largest part for delivery	7'-8"	8'-8"	17'-6"	8,800
Heaviest part for delivery	7'-8"	8'-8"	17'-6"	8,800

*Includes maintenance clearances.

Vendor Information

RSP Systems 528 Craven Street Bronx, NY 10474 718- 991-6999 sales@cogennyc.com www.rsp-systems.com

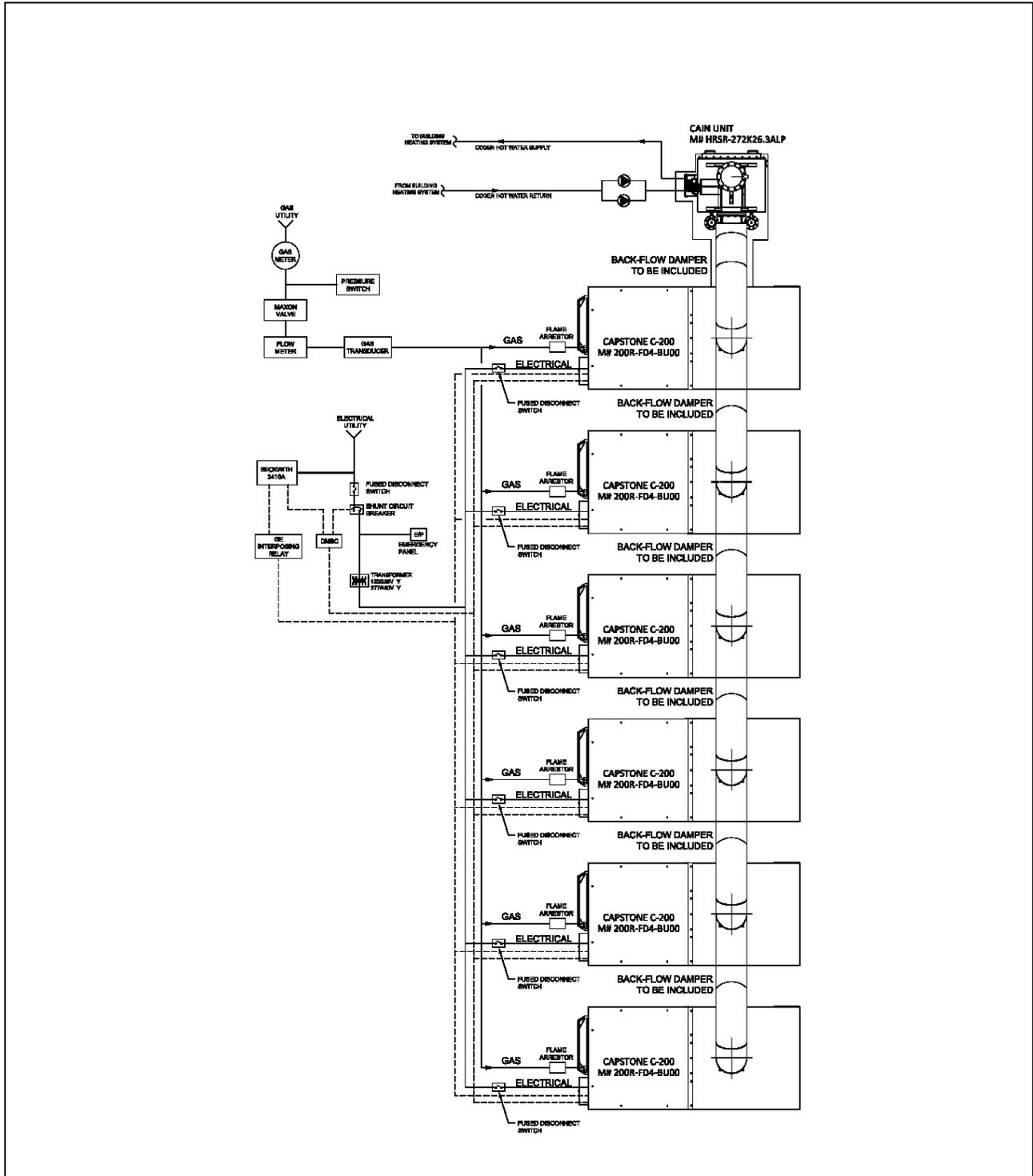
Vendor Statement

- ◆ Achieve ultra-low emissions and reliable electrical/thermal generation from natural gas.
- ◆ One moving part minimal maintenance and downtime.
- ◆ Patented air bearing requires no lubricating oil or coolant in our design.
- ◆ 9 year bumper to bumper factory protection plan with remote monitoring and data mining dashboard.
- ◆ Integrated utility synchronization and protection: inverter based.
- ◆ The unit is small with a modular design allowing for easy installation.
- ◆ Reliable, with tens of millions of run hours and counting.
- ◆ The boiler that makes electricity and provides back up power.

RSP Systems

C200-6-DM-HW

1200kW



Stewart & Stevenson – Atlantic Division GC248N6
248 kW
Description

Type of prime mover	Number of prime mover units	Synchronous or Inverter	Type	Black-Start Capable	Qualification Status
RICE	1	Synchronous	CHP-HW	Yes	Conditionally qualified

Performance

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	Hot Water to Building @ 180°F			NOx lbs/MWh
					MBtu/h	Return °F	Net System Efficiency % (HHV)	
100%	59°F	2,746	245	30.5%	1,445	158	83.1%	1.6
	95°F	2,682	237	29.5%	1,416	158	83.0%	1.6
75%	59°F	2,209	183	28.3%	1,206	158	82.9%	1.6
	95°F	2,209	183	28.3%	1,206	158	82.9%	1.6
50%	59°F	1,691	121	24.4%	980	158	82.4%	1.6
	95°F	1,691	121	24.4%	980	158	82.4%	1.6

Notes: 1 – All performance data based on fuel energy content of 1062.8 Btu/CF HHV

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*	12.6	18.6	10.1	9921
Core system based on minimum width*	12.6	18.6	10.1	
Heat Rejection subsystem*	5.25	9.25	6.7	3500
Largest part for delivery	6.1	12.1	7.3	9921
Heaviest part for delivery	6.1	12.1	7.3	9921

*Includes maintenance clearances.

Vendor Information

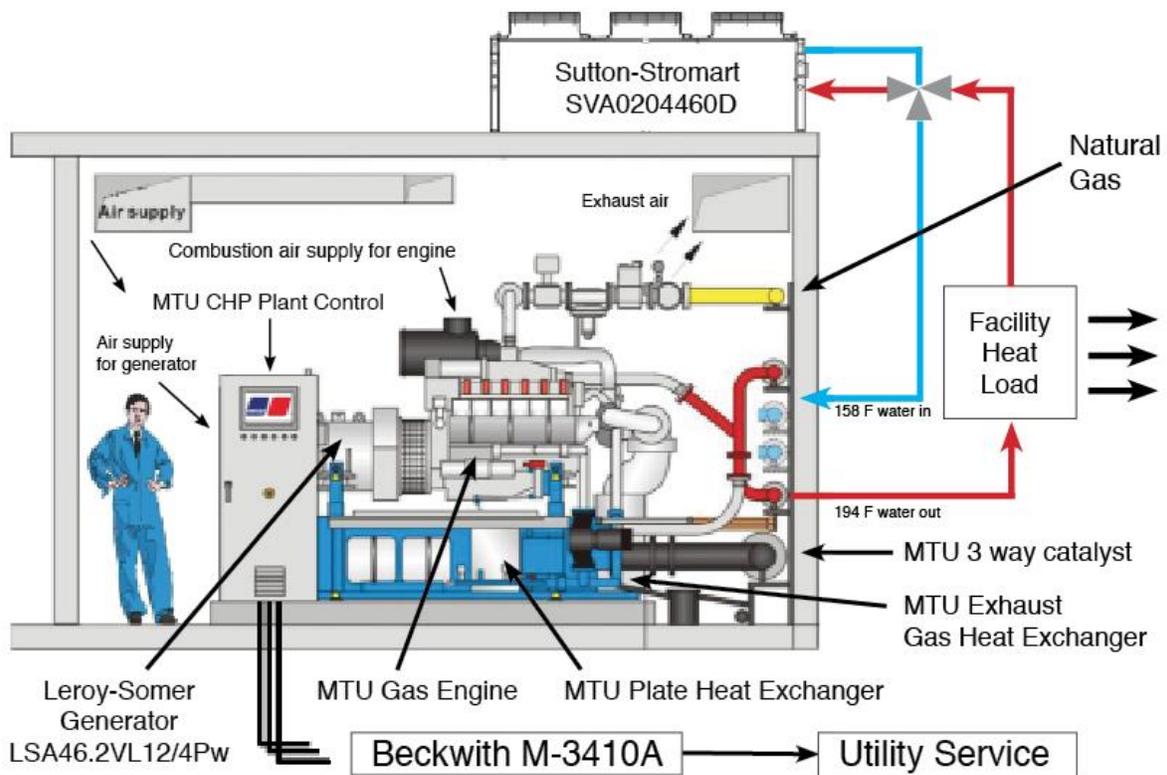
Stewart & Stevenson Power Products LLC – Atlantic Division 33 Gregg Street Lodi, New Jersey 07644 (201) 538-2949 a.labarbera@ssss.com stewartandstevenson.com
--

Vendor Statement

Stewart & Stevenson (S&S) is a global OEM that designs, engineers and manufactures specialized power systems. S&S, a company with a 102 year history, is the largest MTU Onsite Energy (MTU) Distributor in North America with 65 locations world-wide. MTU is a brand of Rolls-Royce Power Systems with continuous rated gas power products ranging from 128 – 2130 kW. MTU has over 3000 gaseous CHP systems in operation world-wide. MTU provides a comprehensive warranty on the entire modular CHP plant. The S&S-Atlantic Division has a large and established sales, service and parts network throughout the Northeast. We are a reliable partner with a focus on uptime and safety.

Stewart & Stevenson – Atlantic Division Model GC248N6: 248 kW

MTU Factory Integrated Heat Recovery CHP Plant





Tecogen, Inc.

Micro T35 AP

35 kW

Description

Type of prime mover	Number of prime mover units	Synchronous or Inverter	Type	Black-Start Capable	Qualification Status
RICE	1	Asynchronous (induction)	CHP-HW	Yes	Conditionally Qualified

Performance - Heating Mode

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	Hot Water to Building @ 180°F			NOx lbs/MWh
					MBtu/h	Return °F	Net System Efficiency % (HHV)	
100%	59°F	417	34.9	28.4%	237	144	84.9%	0.15
	95°F	417	34.9	28.4%	237	144	84.9%	0.15
75%	59°F	347	26.2	25.7%	196	150	82.2%	0.15
	95°F	347	26.2	25.7%	196	150	82.2%	0.15
40%	59°F	264	17.5	22.5%	149	157	79.0%	0.15
	95°F	264	17.5	22.5%	149	157	79.0%	0.15

¹ All performance data based on fuel energy content of 1,020 Btu/CF HHV

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*	8' 8"	10'	6' 9"	2,426
Core system based on minimum width*	8' 8"	10'	6' 9"	
PM Heat Rejection subsystem*	3' 4"	3' 6 1/2"	3' 4"	224
Largest part for delivery	8' 8"	10'	6' 9"	2,426
Heaviest part for delivery	8' 8"	10'	6' 9"	2,426

*Includes maintenance clearances.

Vendor Information

Tecogen, Inc. 45 First Avenue Waltham, MA 02451 (781) 466-6481 Jeffrey.Glick@tecogen.com www.tecogen.com

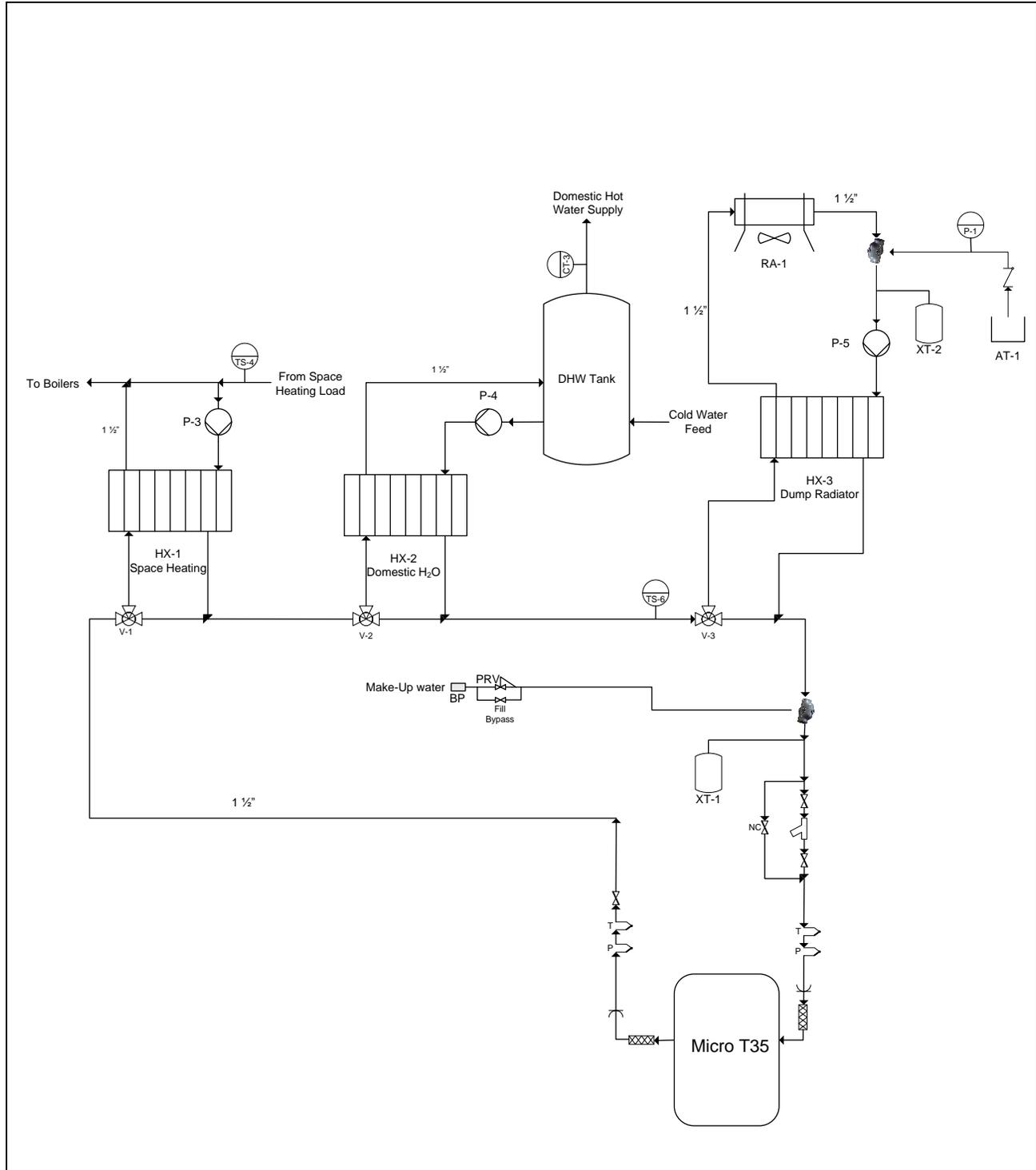
Vendor Statement

TTCogen LLC utilizes Tecogen's sales and service network to bring European CHP expert TEDOM's efficient cogeneration equipment to the United States market. Offering complimentary CHP technologies, the combined product portfolio of the two companies positions the joint venture corporation to address a wide array of customer needs by offering a full suite of clean power solutions from 35 kw – 4 MW. TTCogen operates out of Tecogen's Waltham, MA headquarters and has a nationwide network of engineering, sales, and service centers.

Tecogen, Inc.

Micro T35 AP

35 kW





Tecogen, Inc.

Micro T35 SP

35 kW

Description

Type of prime mover	Number of prime mover units	Synchronous or Inverter	Type	Black-Start Capable	Qualification Status
RICE	1	Synchronous	CHP-HW	No	Conditionally Qualified

Performance - Heating Mode

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	Hot Water to Building @ 180°F			NOx lbs/MWh
					MBtu/h	Return °F	Net System Efficiency % (HHV)	
100%	59°F	417	34.9	28.4%	237	144	84.9%	0.15
	95°F	417	34.9	28.4%	237	144	84.9%	0.15
75%	59°F	347	26.2	25.7%	196	150	82.2%	0.15
	95°F	347	26.2	25.7%	196	150	82.2%	0.15
40%	59°F	264	17.5	22.5%	149	157	79.0%	0.15
	95°F	264	17.5	22.5%	149	157	79.0%	0.15

¹ All performance data based on fuel energy content of 1,020 Btu/CF HHV

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*	8' 8"	10'	6' 9"	2,426
Core system based on minimum width*	8' 8"	10'	6' 9"	
PM Heat Rejection subsystem*	3' 4"	3' 6 1/2"	3' 4"	224
Largest part for delivery	8' 8"	10'	6' 9"	2,426
Heaviest part for delivery	8' 8"	10'	6' 9"	2,426

*Includes maintenance clearances.

Vendor Information

Tecogen, Inc. 45 First Avenue Waltham, MA 02451 (781) 466-6481 Jeffrey.Glick@tecogen.com www.tecogen.com

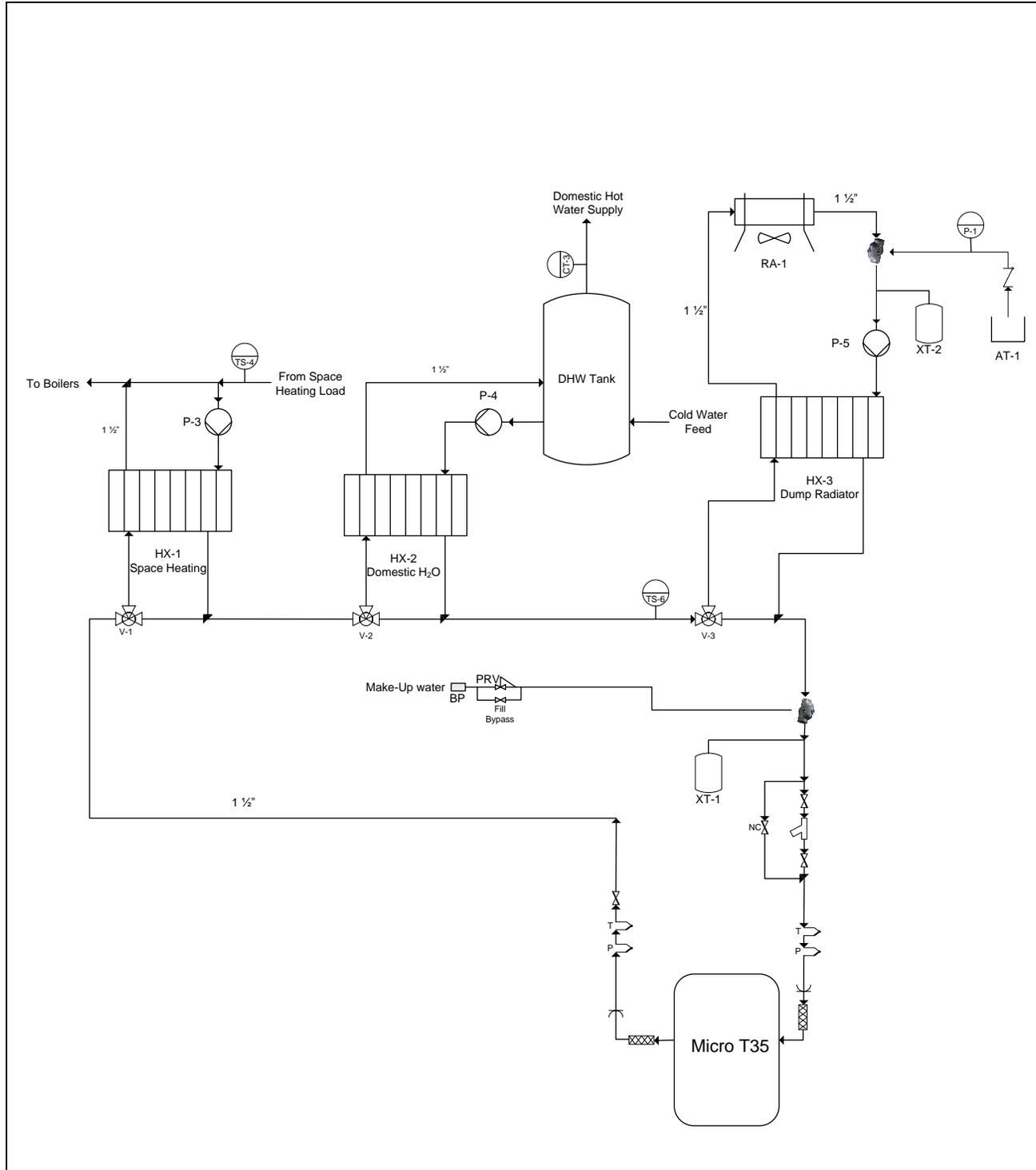
Vendor Statement

TTCogen LLC utilizes Tecogen's sales and service network to bring European CHP expert TEDOM's efficient cogeneration equipment to the United States market. Offering complimentary CHP technologies, the combined product portfolio of the two companies positions the joint venture corporation to address a wide array of customer needs by offering a full suite of clean power solutions from 35 kw – 4 MW. TTCogen operates out of Tecogen's Waltham, MA headquarters and has a nationwide network of engineering, sales, and service centers.

Tecogen, Inc.

Micro T35 SP

35 kW





Tecogen, Inc.

InVerde Ultera (INV-100e+)

100 kW

Description

Type of prime mover	Number of prime mover units	Synchronous or Inverter	Type	Black-Start Capable	Qualification Status
RICE	1	Inverter	CHP-HW	Yes	Pre-Qualified

Performance - Heating Mode

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	Hot Water to Building @ 180°F			NOx lbs/MWh ²
					MBtu/h	Return °F	Net System Efficiency % (HHV)	
100%	59°F	1,175	98.5	28.6%	613	139	80.8%	0.07
	95°F	1,175	98.5	28.6%	613	139	80.8%	0.07
75%	59°F	894	73.5	28.1%	466	149	80.2%	0.07
	95°F	894	73.5	28.1%	466	149	80.2%	0.07
40%	59°F	507	38.5	25.9%	290	161	83.1%	0.07
	95°F	507	38.5	25.9%	290	161	83.1%	0.07

¹ All performance data based on fuel energy content of 1,020 Btu/SCF HHV

² Specification reflects the Ultera premium emission package. The standard emission package is available upon request.

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*	10'	14' 4"	5' 9"	3,850
Core system based on minimum width*	10'	14' 4"	5' 9"	
PM Heat Rejection subsystem*	4'	22' 4"	4' 3"	2,730
Largest part for delivery	4'	22' 4"	4' 3"	2,730
Heaviest part for delivery	4'	7' 4"	5' 9"	3,850

*Includes maintenance clearances.

Vendor Information

Tecogen, Inc. 45 First Avenue Waltham, MA 02451 (781) 466-6481 Jeffrey.Glick@tecogen.com www.tecogen.com

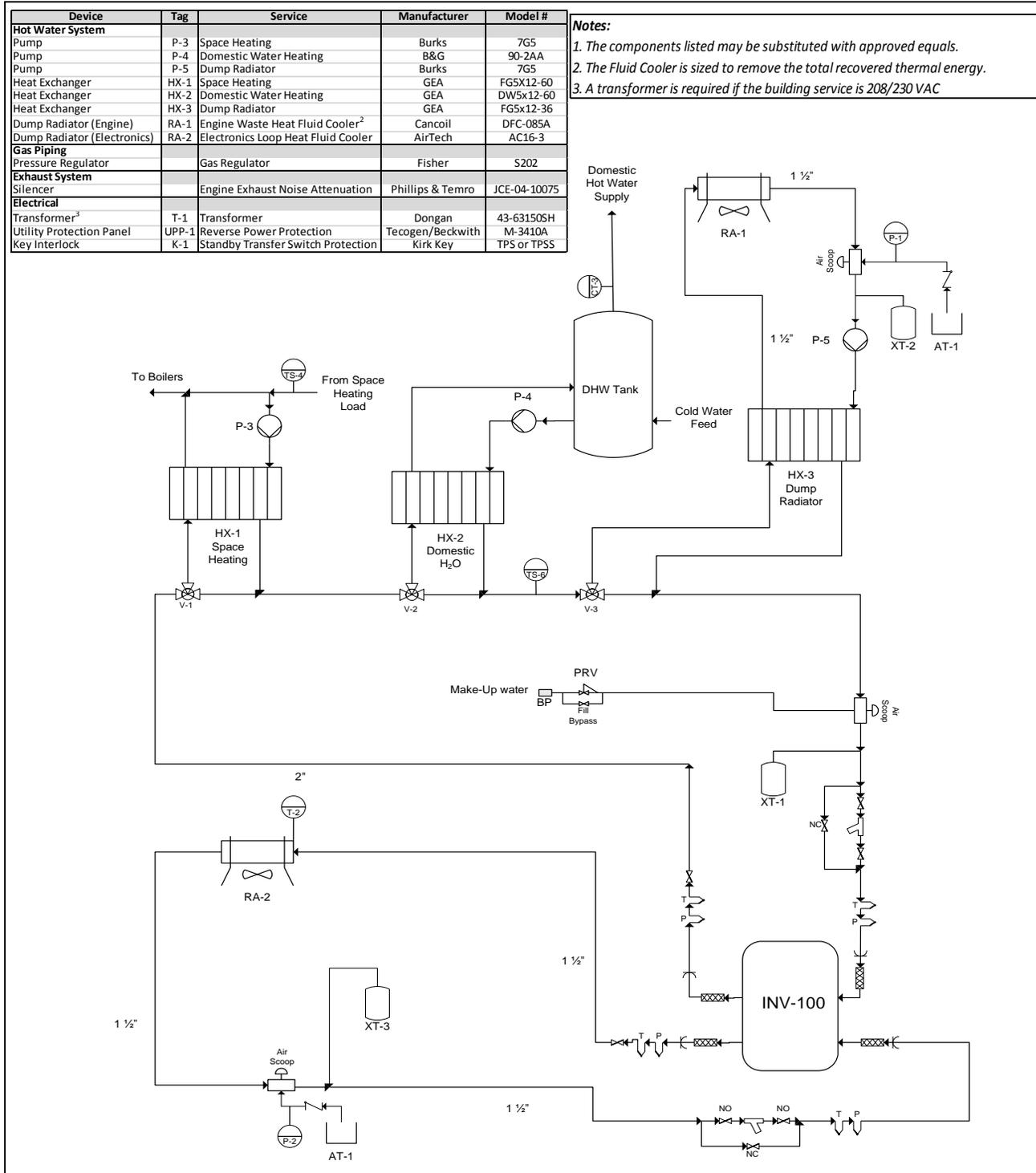
Vendor Statement

Tecogen manufactures, installs, and maintains high efficiency, ultra-clean, combined heat and power products that through patented technology, nearly eliminates criteria pollutants and significantly reduce a customer's carbon footprint. The InVerde e+ offers best in class efficiency resulting from cutting edge inverter technology, innovative power control, and a new and improved engine. The patented engine control technology provides improved stability and load turndown for operation down to 10% load. It is NYSIR listed for certified grid interconnection, is capable of 10 second rapid start after blackout, and requires just 4 inches of water column gas pressure, eliminating the need for costly pressure enhancement equipment. As a microgrid, the InVerde e+ is equipped with unique licensed CERTS software that allows a cluster of units to effortlessly and seamlessly align themselves to share the load (both real and reactive power) and control frequency without complex controls and switchgear. It has both UL2200 and UL1741 certifications, meeting the highest safety standards for engine generator assemblies and inverters.

Tecogen, Inc.

InVerde Ultera (INV-100e+)

100 kW





Tecogen, Inc.

InVerde Ultera (INV-100e+-CCHP)

100 kW

Description

Type of prime mover	Number of prime mover units	Synchronous or Inverter	Type	Black-Start Capable	Qualification Status
RICE	1	Inverter	CCHP	Yes	Pre-Qualified

Performance - Heating Mode

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	Hot Water to Building @ 180°F			NOx lbs/MWh ²
					MBtu/h	Return °F	Net System Efficiency % (HHV)	
100%	59°F	1,175	98.5	28.6%	613	139	80.8%	0.07
	95°F	1,175	98.5	28.6%	613	139	80.8%	0.07
75%	59°F	894	73.5	28.1%	466	149	80.2%	0.07
	95°F	894	73.5	28.1%	466	149	80.2%	0.07
40%	59°F	507	38.5	25.9%	290	161	83.1%	0.07
	95°F	507	38.5	25.9%	290	161	83.1%	0.07

¹ All performance data based on fuel energy content of 1,020 Btu/SCF HHV

² Specification reflects the Ultera premium emission package. The standard emission package is available upon request.

Performance – Cooling Mode

Ambient DB/WB	Fuel in MBtu/h (HHV)	Net Prime Mover kW	Prime Mover Hot Water Supply to Chiller			Chiller			Chiller Cooling Tower Water		
			MBtu/h	Supply °F	Return °F	Capacity ³ tons	Coefficient of Performance	Parasitic kW	gpm	Supply °F	Return °F
95/78°F	1,175	98.5	613	217	176	39	0.76	2.5	176	85	97.5

³ Using heat from the prime mover. 45 °F chilled water output.

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*	10'	14' 4"	5' 9"	3,850
Core system based on minimum width*	10'	14' 4"	5' 9"	
PM Heat Rejection subsystem*	4'	22' 4"	4' 3"	2,730
Chiller Cooling Tower*	6' 2 1/2"	7' 3 1/2"	8' 4"	4,230
Largest part for delivery	4'	22' 4"	4' 3"	2,730
Heaviest part for delivery	3' 6.5"	8' 11"	7' 4 1/2"	7,700

*Includes maintenance clearances.

Vendor Information

Tecogen, Inc. 45 First Avenue Waltham, MA 02451 (781) 466-6481 Jeffrey.Glick@tecogen.com www.tecogen.com

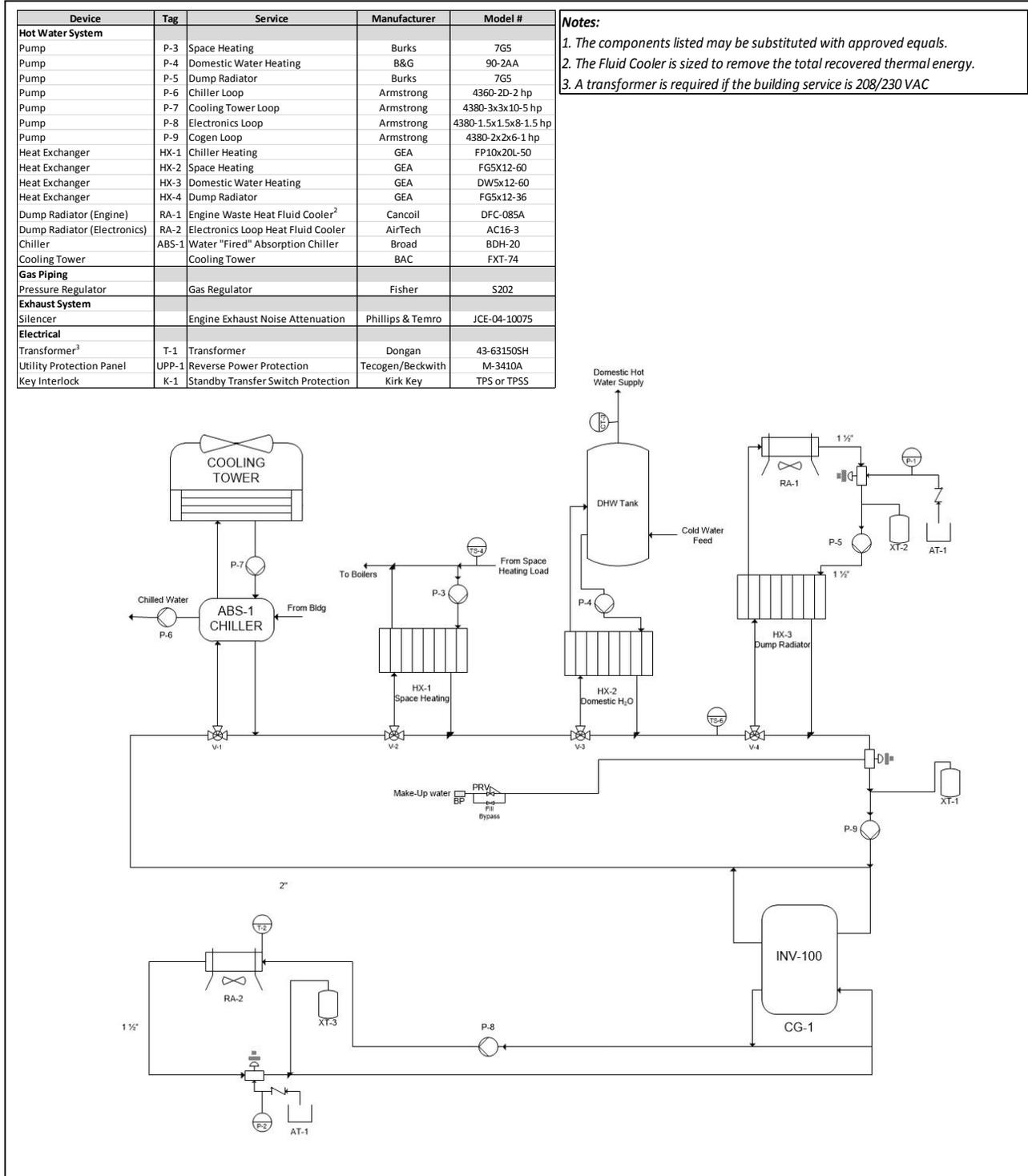
Vendor Statement

Tecogen manufactures, installs, and maintains high efficiency, ultra-clean, combined heat and power products that through patented technology, nearly eliminates criteria pollutants and significantly reduce a customer's carbon footprint. The InVerde e+ offers best in class efficiency resulting from cutting edge inverter technology, innovative power control, and a new and improved engine. The patented engine control technology provides improved stability and load turndown for operation down to 10% load. It is NYSIR listed for certified grid interconnection, is capable of 10 second rapid start after blackout, and requires just 4 inches of water column gas pressure, eliminating the need for costly pressure enhancement equipment. As a microgrid, the InVerde e+ is equipped with unique licensed CERTS software that allows a cluster of units to effortlessly and seamlessly align themselves to share the load (both real and reactive power) and control frequency without complex controls and switchgear. It has both UL2200 and UL1741 certifications, meeting the highest safety standards for engine generator assemblies and inverters.

Tecogen, Inc.

InVerde Ultera (INV-100e+-CCHP)

100 kW



Tecogen, Inc.
InVerde Ultera (INV-125e+)
125 kW
Description

Type of prime mover	Number of prime mover units	Synchronous or Inverter	Type	Black-Start Capable	Qualification Status
RICE	1	Inverter	CHP-HW	Yes	Pre-Qualified

Performance - Heating Mode

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	Hot Water to Building @ 180°F			NOx lbs/MWh ²
					MBtu/h	Return °F	Net System Efficiency % (HHV)	
100%	59°F	1,484	123.5	28.4%	780	128	80.9%	0.07
	95°F	1,484	123.5	28.4%	780	128	80.9%	0.07
75%	59°F	1,111	92.3	28.3%	579	141	80.5%	0.07
	95°F	1,111	92.3	28.3%	579	141	80.5%	0.07
40%	59°F	608	48.5	27.2%	348	157	84.4%	0.07
	95°F	608	48.5	27.2%	348	157	84.4%	0.07

¹ All performance data based on fuel energy content of 1,020 Btu/SCF HHV

² Specification reflects the Ultera premium emission package. The standard emission package is available upon request.

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*	10'	14' 4"	5' 9"	3,850
Core system based on minimum width*	10'	14' 4"	5' 9"	
PM Heat Rejection subsystem*	4'	22' 4"	4' 3"	2,730
Largest part for delivery	4'	22' 4"	4' 3"	2,730
Heaviest part for delivery	4'	7' 4"	5' 9"	3,850

*Includes maintenance clearances.

Vendor Information

Tecogen, Inc. 45 First Avenue Waltham, MA 02451 (781) 466-6481 Jeffrey.Glick@tecogen.com www.tecogen.com

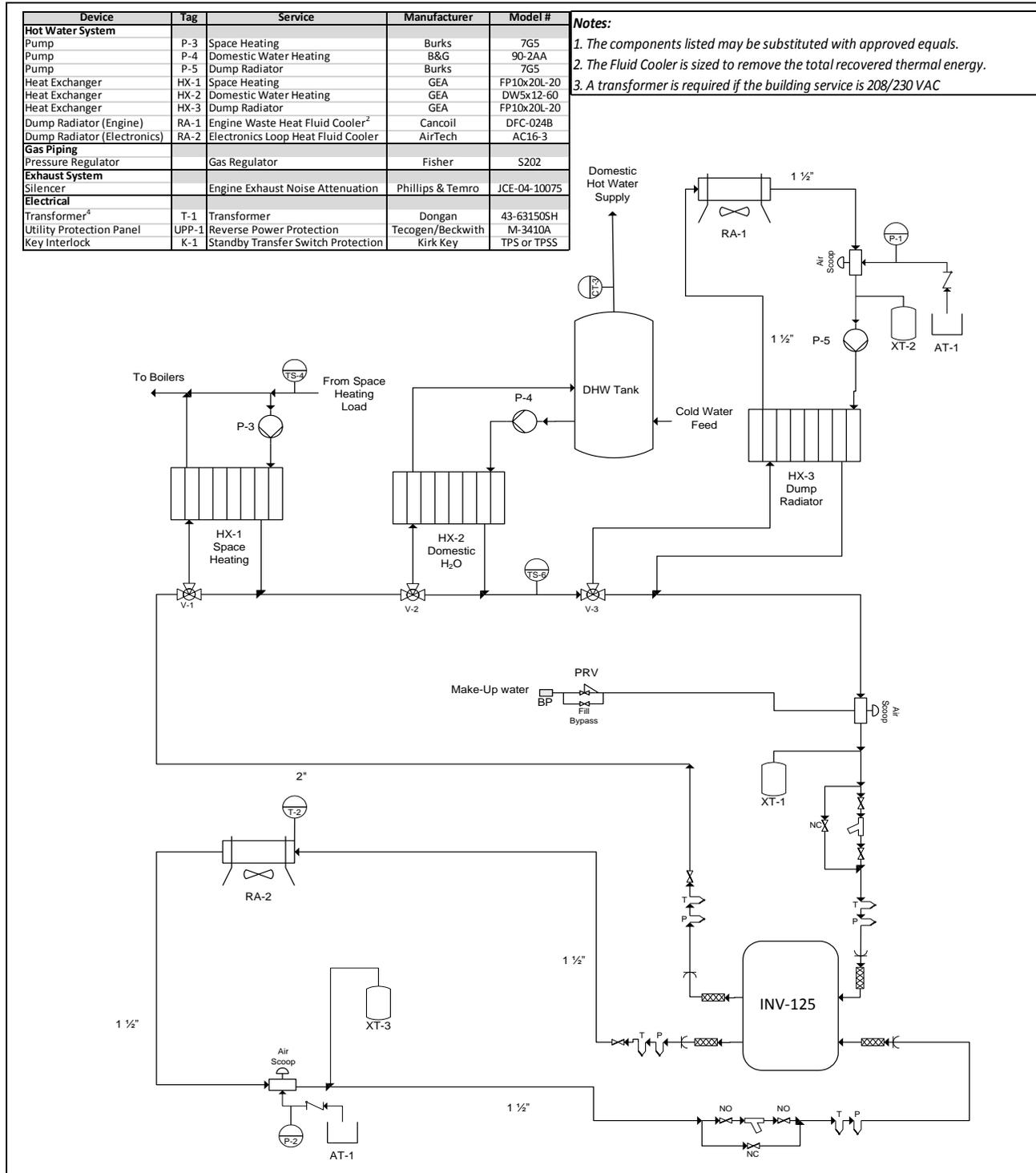
Vendor Statement

Tecogen manufactures, installs, and maintains high efficiency, ultra-clean, combined heat and power products that through patented technology, nearly eliminate criteria pollutants and significantly reduce a customer's carbon footprint. The InVerde e+ offers best in class efficiency resulting from cutting edge inverter technology, innovative power control, and a new and improved engine. The patented engine control technology provides improved stability and load turndown for operation down to 10% load. It is NYSIR listed for certified grid interconnection, is capable of 10 second rapid start after blackout, and requires just 4 inches of water column gas pressure, eliminating the need for costly pressure enhancement equipment. As a microgrid, the InVerde e+ is equipped with unique licensed CERTS software that allows a cluster of units to effortlessly and seamlessly align themselves to share the load (both real and reactive power) and control frequency without complex controls and switchgear. It has both UL2200 and UL1741 certifications, meeting the highest safety standards for engine generator assemblies and inverters.

Tecogen, Inc.

InVerde Ultera (INV-125e+)

125 kW



Tecogen, Inc.
InVerde Ultera (INV-200e+)
200 kW
Description

Type of prime mover	Number of prime mover units	Synchronous or Inverter	Type	Black-Start Capable	Qualification Status
RICE	2	Inverter	CHP-HW	Yes	Pre-Qualified

Performance - Heating Mode

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	Hot Water to Building @ 180°F			NOx lbs/MWh ²
					MBtu/h	Return °F	Net System Efficiency % (HHV)	
100%	59°F	2,350	197	28.6%	1,226	139	80.8%	0.07
	95°F	2,350	197	28.6%	1,226	139	80.8%	0.07
75%	59°F	1,787	147	28.1%	932	149	80.2%	0.07
	95°F	1,787	147	28.1%	932	149	80.2%	0.07
40%	59°F	1,014	77	25.9%	580	161	83.1%	0.07
	95°F	1,014	77	25.9%	580	161	83.1%	0.07

¹ All performance data based on fuel energy content of 1,020 Btu/SCF HHV

² Specification reflects the Ultera premium emission package. The standard emission package is available upon request.

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*	18'	14' 4"	5' 9"	7,700
Core system based on minimum width*	14' 4"	18'	5' 9"	
PM Heat Rejection subsystem*	4'	13' 6"	4' 4"	1,240
Largest part for delivery	4'	13' 6"	4' 4"	1,240
Heaviest part for delivery	4'	7' 4"	5' 9"	3,850

*Includes maintenance clearances.

Vendor Information

Tecogen, Inc. 45 First Avenue Waltham, MA 02451 (781) 466-6481 Jeffrey.Glick@tecogen.com www.tecogen.com

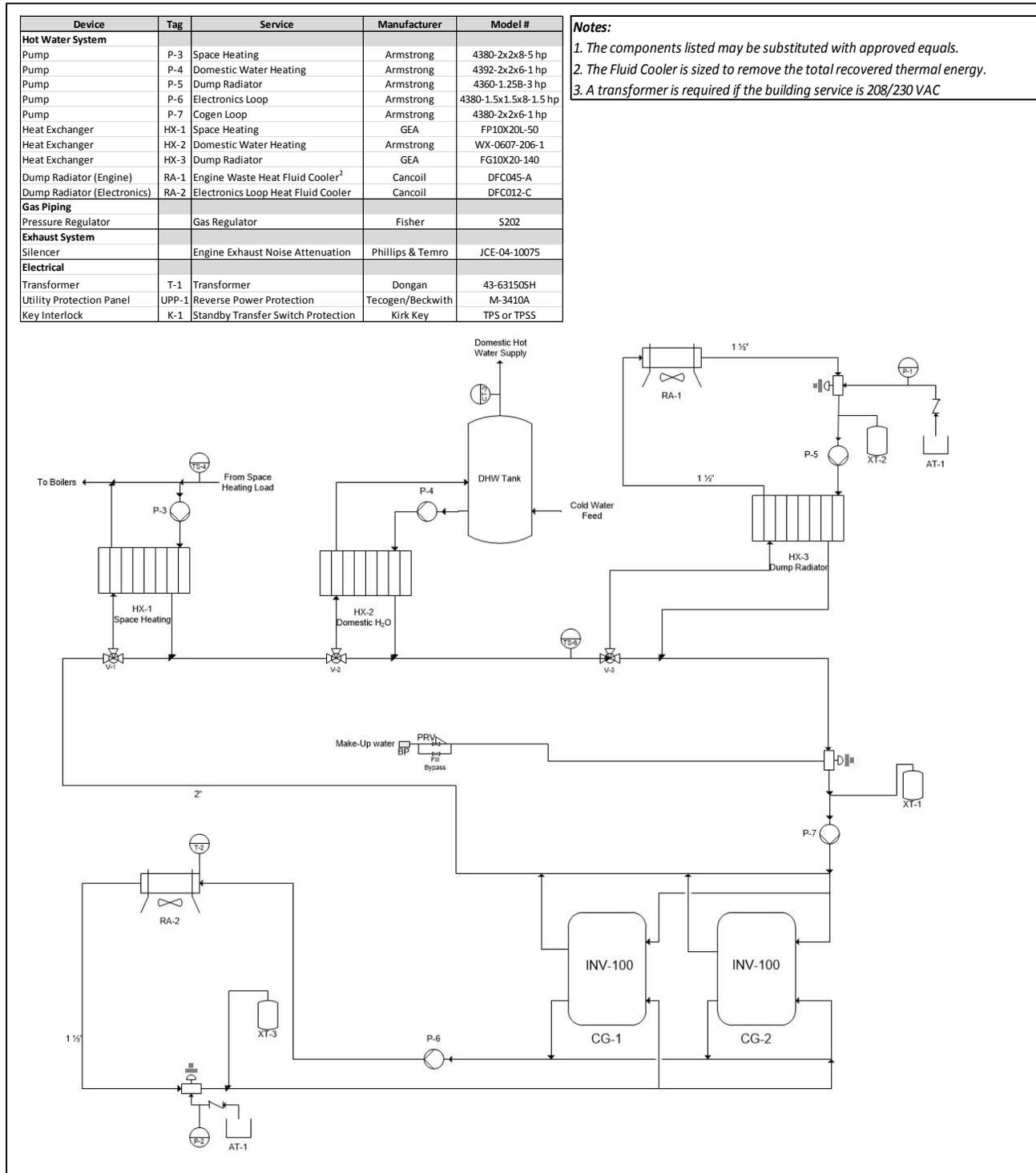
Vendor Statement

<p>Tecogen manufactures, installs, and maintains high efficiency, ultra-clean, combined heat and power products that through patented technology, nearly eliminates criteria pollutants and significantly reduce a customer's carbon footprint. The InVerde e+ offers best in class efficiency resulting from cutting edge inverter technology, innovative power control, and a new and improved engine. The patented engine control technology provides improved stability and load turndown for operation down to 10% load. It is NYSIR listed for certified grid interconnection, is capable of 10 second rapid start after blackout, and requires just 4 inches of water column gas pressure, eliminating the need for costly pressure enhancement equipment. As a microgrid, the InVerde e+ is equipped with unique licensed CERTS software that allows a cluster of units to effortlessly and seamlessly align themselves to share the load (both real and reactive power) and control frequency without complex controls and switchgear. It has both UL2200 and UL1741 certifications, meeting the highest safety standards for engine generator assemblies and inverters.</p>

Tecogen, Inc.

InVerde Ultera (INV-200e+)

200 kW





Tecogen, Inc.

InVerde Ultera (INV-200e+ - CCHP)

200 kW

Description

Type of prime mover	Number of prime mover units	Synchronous or Inverter	Type	Black-Start Capable	Qualification Status
RICE	2	Inverter	CCHP	Yes	Pre-Qualified

Performance - Heating Mode

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	Hot Water to Building @ 180°F			NOx lbs/MWh ²
					MBtu/h	Return °F	Net System Efficiency % (HHV)	
100%	59°F	2,350	197	28.6%	1,226	139	80.8%	0.07
	95°F	2,350	197	28.6%	1,226	139	80.8%	0.07
75%	59°F	1,787	147	28.1%	932	149	80.2%	0.07
	95°F	1,787	147	28.1%	932	149	80.2%	0.07
40%	59°F	1,014	77	25.9%	580	161	83.1%	0.07
	95°F	1,014	77	25.9%	580	161	83.1%	0.07

¹ All performance data based on fuel energy content of 1,020 Btu/SCF HHV

² Specification reflects the Ultera premium emission package. The standard emission package is available upon request.

Performance – Cooling Mode

Ambient DB/WB	Fuel in MBtu/h (HHV)	Net Prime Mover kW	Prime Mover Hot Water Supply to Chiller			Chiller			Chiller Cooling Tower Water		
			MBtu/h	Supply °F	Return °F	Capacity ³ tons	Coefficient of Performance	Parasitic kW	gpm	Supply °F	Return °F
95/78°F	2,350	197	1226	217	176	77	0.75	2.5	353	85	97.5

³ Using heat from the prime mover. 45 °F chilled water output.

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*	18'	14' 4"	5' 9"	7,700
Core system based on minimum width*	14' 4"	18'	5' 9"	
PM Heat Rejection subsystem*	4'	13' 6"	4' 4"	1,240
Chiller Cooling Tower*	12' 2 1/2"	7' 3 1/2"	8' 4"	8,030
Largest part for delivery	12' 2 1/2"	7' 3 1/2"	8' 4"	8,030
Heaviest part for delivery	12' 2 1/2"	7' 3 1/2"	8' 4"	8,030

*Includes maintenance clearances.

Vendor Information

Tecogen, Inc. 45 First Avenue Waltham, MA 02451 (781) 466-6481 Jeffrey.Glick@tecogen.com www.tecogen.com

Vendor Statement

Tecogen manufactures, installs, and maintains high efficiency, ultra-clean, combined heat and power products that through patented technology, nearly eliminates criteria pollutants and significantly reduce a customer's carbon footprint. The InVerde e+ offers best in class efficiency resulting from cutting edge inverter technology, innovative power control, and a new and improved engine. The patented engine control technology provides improved stability and load turndown for operation down to 10% load. It is NYSIR listed for certified grid interconnection, is capable of 10 second rapid start after blackout, and requires just 4 inches of water column gas pressure, eliminating the need for costly pressure enhancement equipment. As a microgrid, the InVerde e+ is equipped with unique licensed CERTS software that allows a cluster of units to effortlessly and seamlessly align themselves to share the load (both real and reactive power) and control frequency without complex controls and switchgear. It has both UL2200 and UL1741 certifications, meeting the highest safety standards for engine generator assemblies and inverters.

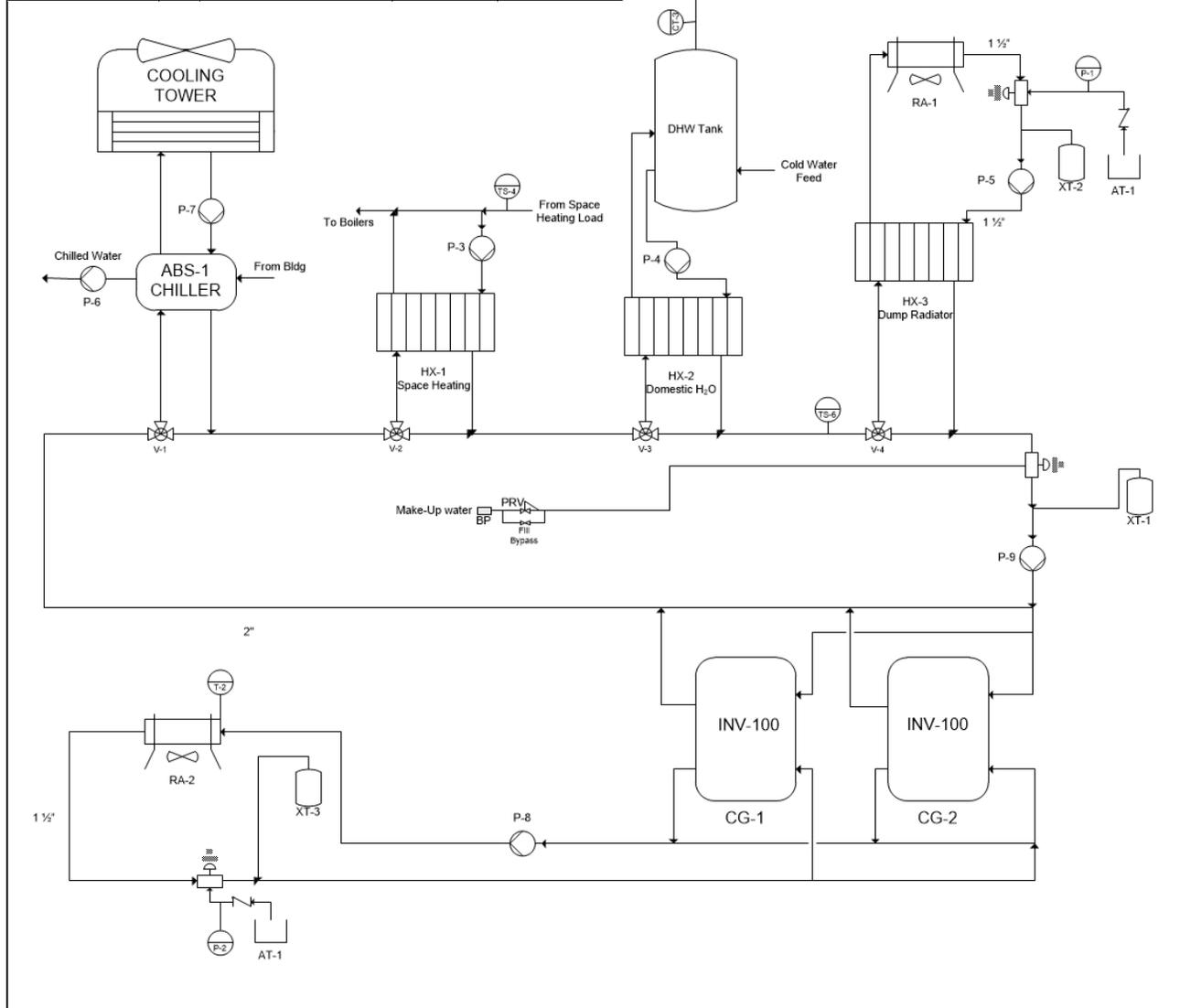
Tecogen, Inc.

InVerde Ultera (INV-200e+ - CCHP)

200 kW

Device	Tag	Service	Manufacturer	Model #
Hot Water System				
Pump	P-3	Space Heating	Armstrong	4380-2x2x8-5 hp
Pump	P-4	Domestic Water Heating	Armstrong	4392-2x2x6-1 hp
Pump	P-5	Dump Radiator	Armstrong	4360-1.25x-3 hp
Pump	P-6	Chiller Loop	Armstrong	4380-3x3x8-5 hp
Pump	P-7	Cooling Tower Loop	Armstrong	4300-6x6x10-10 hp
Pump	P-8	Electronics Loop	Armstrong	4380-1.5x1.5x8-1.5 hp
Pump	P-9	Cogen Loop	Armstrong	4380-2x2x6-1 hp
Heat Exchanger	HX-1	Chiller Heating	GEA	FP10x20L-80
Heat Exchanger	HX-2	Space Heating	GEA	FP10X20L-50
Heat Exchanger	HX-3	Domestic Water Heating	Armstrong	WX-0607-206-1
Heat Exchanger	HX-4	Dump Radiator	GEA	FG10X20-140
Dump Radiator (Engine)	RA-1	Engine Waste Heat Fluid Cooler ²	Cancoil	DFC045-A
Dump Radiator (Electronics)	RA-2	Electronics Loop Heat Fluid Cooler	Cancoil	DFC012-C
Chiller	ABS-1	Water "Fired" Absorption Chiller	Broad	BDH-30
Cooling Tower		Cooling Tower	BAC	FXT-160
Gas Piping				
Pressure Regulator		Gas Regulator	Fisher	S202
Exhaust System				
Silencer		Engine Exhaust Noise Attenuation	Phillips & Temro	JCE-04-10075
Electrical				
Transformer ³	T-1	Transformer	Dongan	43-63150SH
Utility Protection Panel	UPP-1	Reverse Power Protection	Tecogen/Beckwith	M-3410A
Key Interlock	K-1	Standby Transfer Switch Protection	Kirk Key	TPS or TPSS

Notes:
 1. The components listed may be substituted with approved equals.
 2. The Fluid Cooler is sized to remove the total recovered thermal energy.
 3. A transformer is required if the building service is 208/230 VAC



Tecogen, Inc.
InVerde Ultera (INV-300e+)
300 kW
Description

Type of prime mover	Number of prime mover units	Synchronous or Inverter	Type	Black-Start Capable	Qualification Status
RICE	3	Inverter	CHP-HW	Yes	Pre-Qualified

Performance - Heating Mode

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	Hot Water to Building @ 180°F			NOx lbs/MWh ²
					MBtu/h	Return °F	Net System Efficiency % (HHV)	
100%	59°F	3,525	295.5	28.6%	1,839	139	80.8%	0.07
	95°F	3,525	295.5	28.6%	1,839	139	80.8%	0.07
75%	59°F	2,681	220.5	28.1%	1,399	149	80.2%	0.07
	95°F	2,681	220.5	28.1%	1,399	149	80.2%	0.07
40%	59°F	1,521	115.5	25.9%	870	161	83.1%	0.07
	95°F	1,521	115.5	25.9%	870	161	83.1%	0.07

¹ All performance data based on fuel energy content of 1,020 Btu/SCF HHV

² Specification reflects the Ultera premium emission package. The standard emission package is available upon request.

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*	26'	14' 4"	5' 9"	11,550
Core system based on minimum width*	14' 4"	26'	5' 9"	
PM Heat Rejection subsystem*	4'	17' 11"	4' 4"	1,955
Largest part for delivery	4'	17' 11"	4' 4"	1,955
Heaviest part for delivery	4'	7' 4"	5' 9"	3,850

*Includes maintenance clearances.

Vendor Information

Tecogen, Inc. 45 First Avenue Waltham, MA 02451 (781) 466-6481 Jeffrey.Glick@tecogen.com www.tecogen.com

Vendor Statement

<p>Tecogen manufactures, installs, and maintains high efficiency, ultra-clean, combined heat and power products that through patented technology, nearly eliminates criteria pollutants and significantly reduce a customer's carbon footprint. The InVerde e+ offers best in class efficiency resulting from cutting edge inverter technology, innovative power control, and a new and improved engine. The patented engine control technology provides improved stability and load turndown for operation down to 10% load. It is NYSIR listed for certified grid interconnection, is capable of 10 second rapid start after blackout, and requires just 4 inches of water column gas pressure, eliminating the need for costly pressure enhancement equipment. As a microgrid, the InVerde e+ is equipped with unique licensed CERTS software that allows a cluster of units to effortlessly and seamlessly align themselves to share the load (both real and reactive power) and control frequency without complex controls and switchgear. It has both UL2200 and UL1741 certifications, meeting the highest safety standards for engine generator assemblies and inverters.</p>

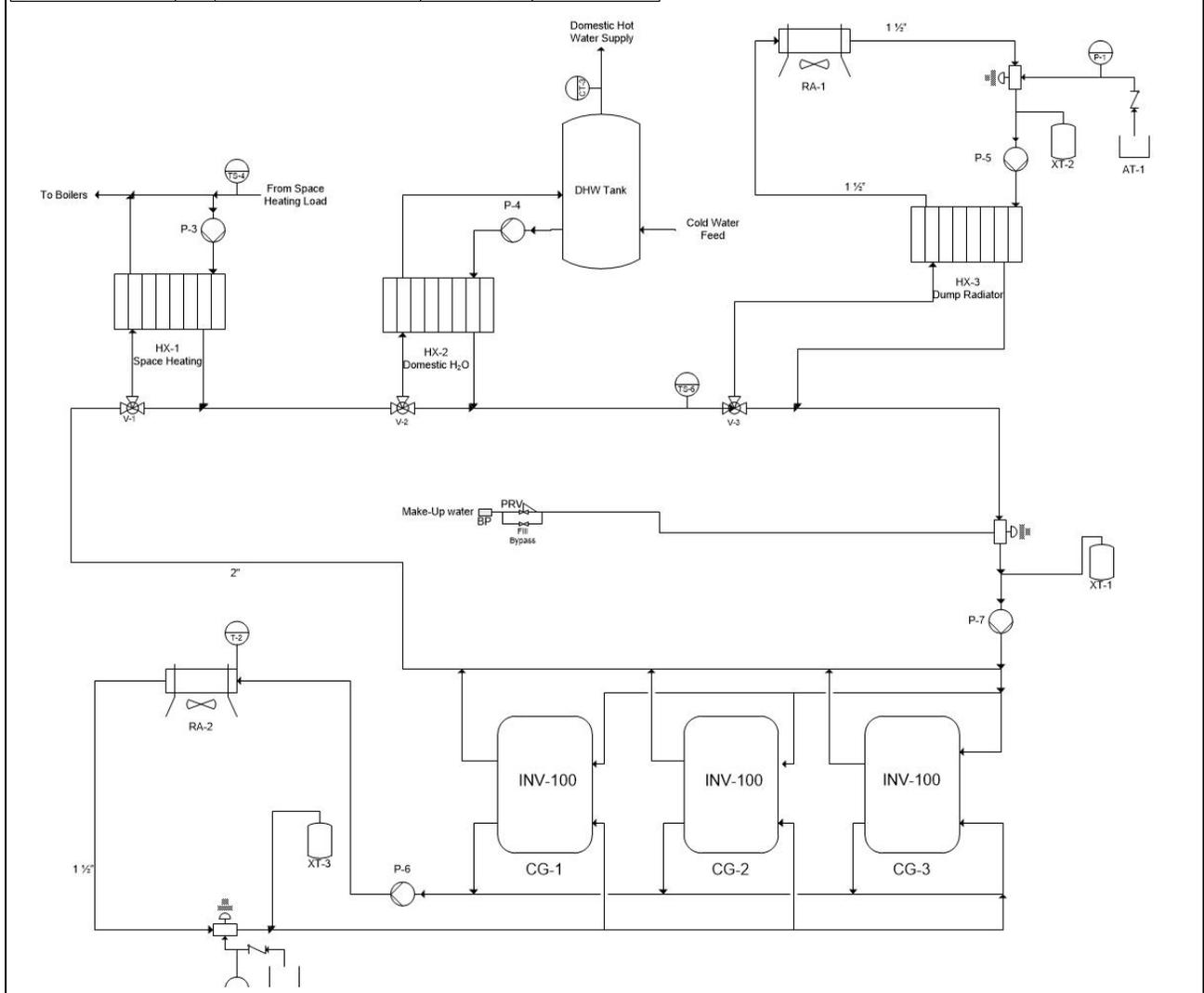
Tecogen, Inc.

InVerde Ultera (INV-300e+)

300 kW

Device	Tag	Service	Manufacturer	Model #
Hot Water System				
Pump	P-3	Space Heating	Armstrong	4360-2B-5 hp
Pump	P-4	Domestic Water Heating	Armstrong	4380-2x2x6-1.5 hp
Pump	P-5	Dump Radiator	Armstrong	4360-1.5B-3 hp
Pump	P-6	Electronics Loop	Armstrong	4380-1.5x1.5x8-2 hp
Pump	P-7	Cogen Loop	Armstrong	4380-2x2x6-1.5 hp
Heat Exchanger	HX-1	Space Heating	GEA	FP10X20L-70
Heat Exchanger	HX-2	Domestic Water Heating	Armstrong	WX-0806-208-1
Heat Exchanger	HX-3	Dump Radiator	GEA	FG10X20-100
Dump Radiator (Engine)	RA-1	Engine Waste Heat Fluid Cooler ²	Cancoil	DFC068-C
Dump Radiator (Electronics)	RA-2	Electronics Loop Heat Fluid Cooler	Cancoil	DFC012-B
Gas Piping				
Pressure Regulator		Gas Regulator	Fisher	S202
Exhaust System				
Silencer		Engine Exhaust Noise Attenuation	Phillips & Temro	JCE-04-10075
Electrical				
Transformer ³	T-1	Transformer	Dongan	43-63150SH
Utility Protection Panel	UPP-1	Reverse Power Protection	Tecogen/Beckwith	M-3410A
Key Interlock	K-1	Standby Transfer Switch Protection	Kirk Key	TPS or TPSS

- Notes:**
1. The components listed may be substituted with approved equals.
 2. The Fluid Cooler is sized to remove the total recovered thermal energy.
 3. A transformer is required if the building service is 208/230 VAC





Tecogen, Inc.

InVerde Ultera (INV-300e+ - CCHP)

300 kW

Description

Type of prime mover	Number of prime mover units	Synchronous or Inverter	Type	Black-Start Capable	Qualification Status
RICE	3	Inverter	CCHP	Yes	Conditionally Qualified

Performance - Heating Mode

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	Hot Water to Building @ 180°F			NOx lbs/MWh ²
					MBtu/h	Return °F	Net System Efficiency % (HHV)	
100%	59°F	3,525	295.5	28.6%	1,839	139	80.8%	0.07
	95°F	3,525	295.5	28.6%	1,839	139	80.8%	0.07
75%	59°F	2,681	220.5	28.1%	1,399	149	80.2%	0.07
	95°F	2,681	220.5	28.1%	1,399	149	80.2%	0.07
40%	59°F	1,521	115.5	25.9%	870	161	83.1%	0.07
	95°F	1,521	115.5	25.9%	870	161	83.1%	0.07

¹ All performance data based on fuel energy content of 1,020 Btu/SCF HHV

² Specification reflects the Ultera premium emission package. The standard emission package is available upon request.

Performance – Cooling Mode

Ambient DB/WB	Fuel in MBtu/h (HHV)	Net Prime Mover kW	Prime Mover Hot Water Supply to Chiller			Chiller			Chiller Cooling Tower Water		
			MBtu/h	Supply °F	Return °F	Capacity ³ tons	Coefficient of Performance	Parasitic kW	gpm	Supply °F	Return °F
95/78°F	3,525	295.5	1,839	217	176	116	0.76	2.5	516	85	97.5

³Using heat from the prime mover. 45 °F chilled water output.

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*	26'	14' 4"	5' 9"	11,550
Core system based on minimum width*	14' 4"	26'	5' 9"	
PM Heat Rejection subsystem*	4'	17' 11"	4' 4"	1,955
Chiller Cooling Tower*	12' 2 ½"	7' 3 ½"	11'	9,420
Largest part for delivery	12' 2 ½"	7' 3 ½"	11'	9,420
Heaviest part for delivery	3' 9"	15' 2"	7' 4 ½"	14,000

*Includes maintenance clearances.

Vendor Information

Tecogen, Inc. 45 First Avenue Waltham, MA 02451 (781) 466-6481 Jeffrey.Glick@tecogen.com www.tecogen.com

Vendor Statement

Tecogen manufactures, installs, and maintains high efficiency, ultra-clean, combined heat and power products that through patented technology, nearly eliminate criteria pollutants and significantly reduce a customer's carbon footprint. The InVerde e+ offers best in class efficiency resulting from cutting edge inverter technology, innovative power control, and a new and improved engine. The patented engine control technology provides improved stability and load turndown for operation down to 10% load. It is NYSIR listed for certified grid interconnection, is capable of 10 second rapid start after blackout, and requires just 4 inches of water column gas pressure, eliminating the need for costly pressure enhancement equipment. As a microgrid, the InVerde e+ is equipped with unique licensed CERTS software that allows a cluster of units to effortlessly and seamlessly align themselves to share the load (both real and reactive power) and control frequency without complex controls and switchgear. It has both UL2200 and UL1741 certifications, meeting the highest safety standards for engine generator assemblies and inverters.

Tecogen, Inc.

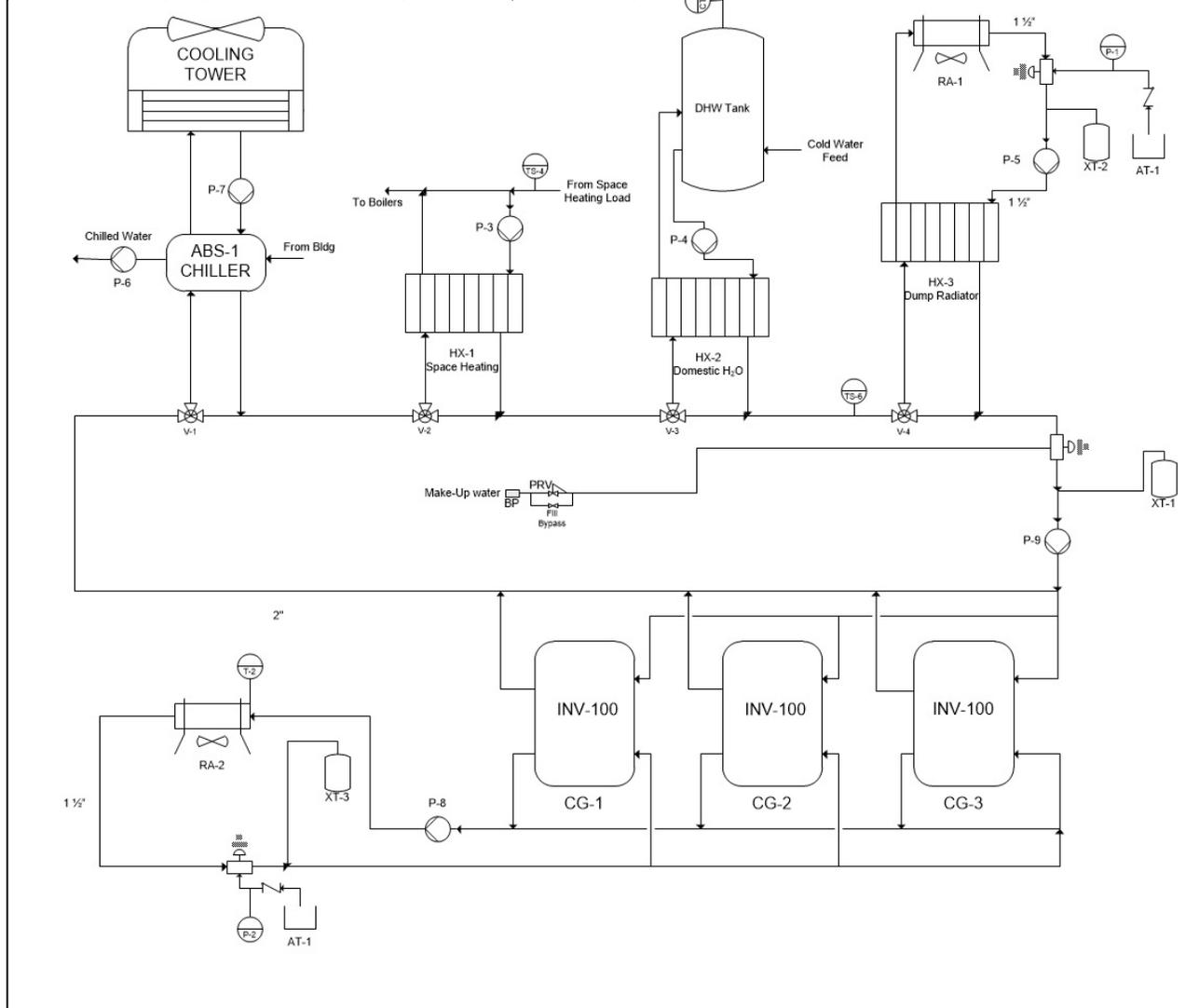
InVerde Ultera (INV-300e+ - CCHP)

300 kW

Device	Tag	Service	Manufacturer	Model #
Hot Water System				
Pump	P-3	Space Heating	Armstrong	4360-2B-5 hp
Pump	P-4	Domestic Water Heating	Armstrong	4380-2x2x6-1.5 hp
Pump	P-5	Dump Radiator	Armstrong	4360-1.5B-3 hp
Pump	P-6	Chiller Loop	Armstrong	4380-3x3x8-5 hp
Pump	P-7	Cooling Tower Loop	Armstrong	4300-6x6x10-15 hp
Pump	P-8	Electronics Loop	Armstrong	4380-1.5x1.5x8-2 hp
Pump	P-9	Cogen Loop	Armstrong	4380-2x2x6-1.5 hp
Heat Exchanger	HX-1	Chiller Heating	GEA	FP10x20L-200
Heat Exchanger	HX-2	Space Heating	GEA	FP10x20L-70
Heat Exchanger	HX-3	Domestic Water Heating	Armstrong	WX-0806-208-1
Heat Exchanger	HX-4	Dump Radiator	GEA	FG10x20-100
Dump Radiator (Engine)	RA-1	Engine Waste Heat Fluid Cooler ²	Cancoil	DFC068-C
Dump Radiator (Electronics)	RA-2	Electronics Loop Heat Fluid Cooler	Cancoil	DFC012-B
Chiller	ABS-1	Water "Fired" Absorption Chiller	Broad Thermax	BDH-50 LT8
Cooling Tower		Cooling Tower	BAC	FXT-216
Gas Piping				
Pressure Regulator		Gas Regulator	Fisher	S202
Exhaust System				
Silencer		Engine Exhaust Noise Attenuation	Phillips & Temro	JCE-04-10075
Electrical				
Transformer ³	T-1	Transformer	Dongan	43-631505H
Utility Protection Panel	UPP-1	Reverse Power Protection	Tecogen/Beckwith	M-3410A
Key Interlock	K-1	Standby Transfer Switch Protection	Kirk Key	TPS or TPSS

Notes:

1. The components listed may be substituted with approved equals.
2. The Fluid Cooler is sized to remove the total recovered thermal energy.
3. A transformer is required if the building service is 208/230 VAC



Tecogen, Inc.
InVerde Ultera (INV-400e+)
400 kW
Description

Type of prime mover	Number of prime mover units	Synchronous or Inverter	Type	Black-Start Capable	Qualification Status
RICE	4	Inverter	CHP-HW	Yes	Pre-Qualified

Performance - Heating Mode

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	Hot Water to Building @ 180°F			NOx lbs/MWh ²
					MBtu/h	Return °F	Net System Efficiency % (HHV)	
100%	59°F	4,700	394	28.6%	2,452	139	80.8%	0.07
	95°F	4,700	394	28.6%	2,452	139	80.8%	0.07
75%	59°F	3,575	294	28.1%	1,865	149	80.2%	0.07
	95°F	3,575	294	28.1%	1,865	149	80.2%	0.07
40%	59°F	2,028	154	25.9%	1,160	161	83.1%	0.07
	95°F	2,028	154	25.9%	1,160	161	83.1%	0.07

¹ All performance data based on fuel energy content of 1,020 Btu/SCF HHV

² Specification reflects the Ultera premium emission package. The standard emission package is available upon request.

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*	18'	25' 8"	5' 9"	15,400
Core system based on minimum width*	14' 4"	34'	5' 9"	
PM Heat Rejection subsystem*	4'	22' 4"	4' 4"	2,730
Largest part for delivery	4'	22' 4"	4' 4"	2,730
Heaviest part for delivery	4'	7' 4"	5' 9"	3,850

*Includes maintenance clearances.

Vendor Information

Tecogen, Inc. 45 First Avenue Waltham, MA 02451 (781) 466-6481 Jeffrey.Glick@tecogen.com www.tecogen.com

Vendor Statement

Tecogen manufactures, installs, and maintains high efficiency, ultra-clean, combined heat and power products that through patented technology, nearly eliminates criteria pollutants and significantly reduce a customer's carbon footprint. The InVerde e+ offers best in class efficiency resulting from cutting edge inverter technology, innovative power control, and a new and improved engine. The patented engine control technology provides improved stability and load turndown for operation down to 10% load. It is NYSIR listed for certified grid interconnection, is capable of 10 second rapid start after blackout, and requires just 4 inches of water column gas pressure, eliminating the need for costly pressure enhancement equipment. As a microgrid, the InVerde e+ is equipped with unique licensed CERTS software that allows a cluster of units to effortlessly and seamlessly align themselves to share the load (both real and reactive power) and control frequency without complex controls and switchgear. It has both UL2200 and UL1741 certifications, meeting the highest safety standards for engine generator assemblies and inverters.
--

Tecogen, Inc.

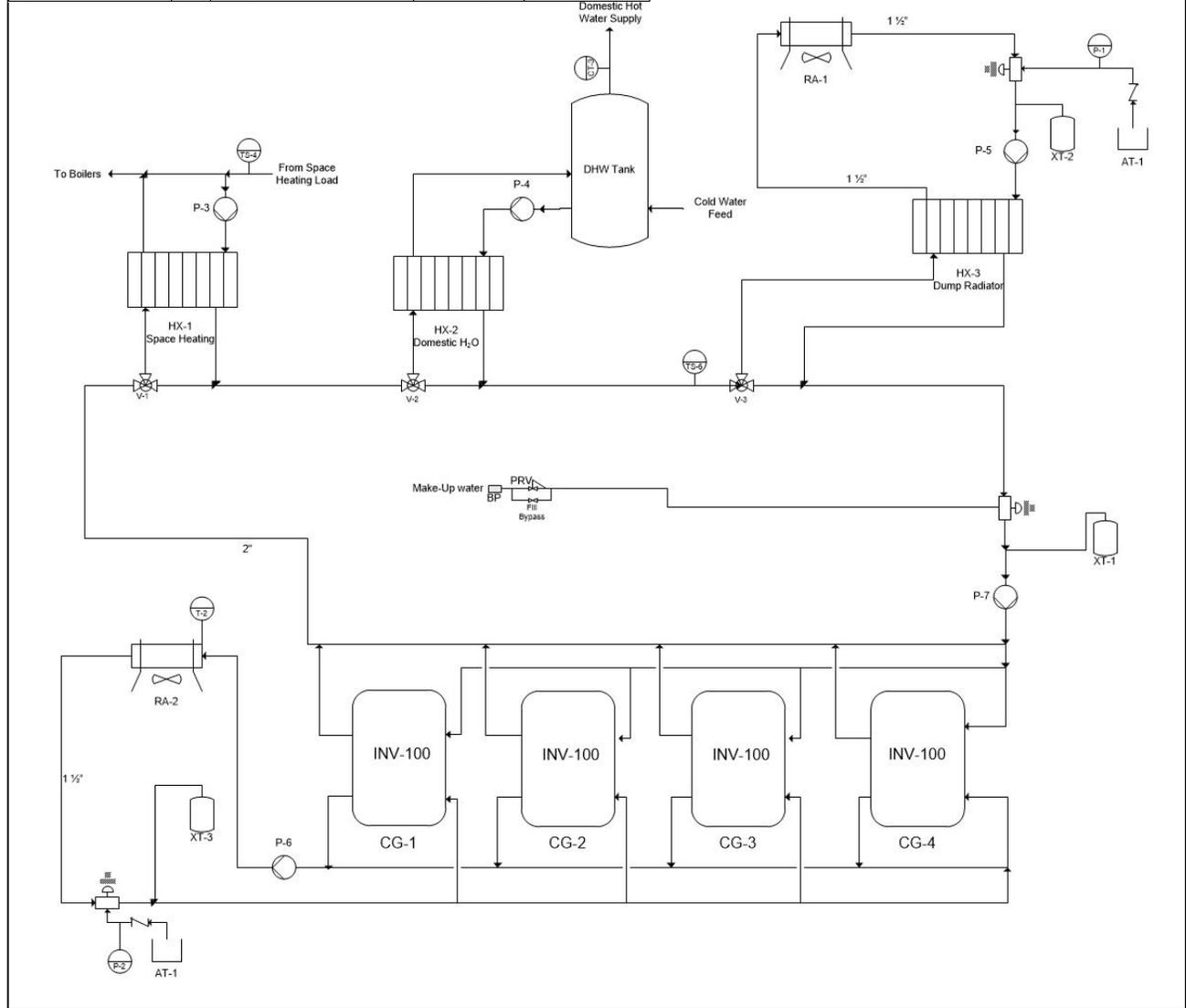
InVerde Ultera (INV-400e+)

400 kW

Device	Tag	Service	Manufacturer	Model #
Hot Water System				
Pump	P-3	Space Heating	Armstrong	4380-3x3x5-5 hp
Pump	P-4	Domestic Water Heating	Armstrong	4380-3x3x6-2 hp
Pump	P-5	Dump Radiator	Armstrong	4360-2B-5 hp
Pump	P-6	Electronics Loop	Armstrong	4380-1.5x1.5x8-2 hp
Pump	P-7	Cogen Loop	Armstrong	4392-3x3x6-1.5 hp
Heat Exchanger	HX-1	Space Heating	GEA	FP10X20L-130
Heat Exchanger	HX-2	Domestic Water Heating	Armstrong	WX-1005-210-1
Heat Exchanger	HX-3	Dump Radiator	GEA	FG10X20-140
Dump Radiator (Engine)	RA-1	Engine Waste Heat Fluid Cooler ²	Cancoil	DFC085-A
Dump Radiator (Electronics)	RA-2	Electronics Loop Heat Fluid Cooler	Cancoil	DFC012-B
Gas Piping				
Pressure Regulator		Gas Regulator	Fisher	S202
Exhaust System				
Silencer		Engine Exhaust Noise Attenuation	Phillips & Temro	JCE-04-10075
Electrical				
Transformer ³	T-1	Transformer	Dongan	43-63150SH
Utility Protection Panel	UPP-1	Reverse Power Protection	Tecogen/Beckwith	M-3410A
Key Interlock	K-1	Standby Transfer Switch Protection	Kirk Key	TPS or TPSS

Notes:

1. The components listed may be substituted with approved equals.
2. The Fluid Cooler is sized to remove the total recovered thermal energy.
3. A transformer is required if the building service is 208/230 VAC





Tecogen, Inc.

InVerde Ultera (INV-500e+)

500 kW

Description

Type of prime mover	Number of prime mover units	Synchronous or Inverter	Type	Black-Start Capable	Qualification Status
RICE	5	Inverter	CHP-HW	Yes	Pre-Qualified

Performance - Heating Mode

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	Hot Water to Building @ 180°F			NOx lbs/MWh ²
					MBtu/h	Return °F	Net System Efficiency % (HHV)	
100%	59°F	5,875	492.5	28.6%	3,065	139	80.8%	0.07
	95°F	5,875	492.5	28.6%	3,065	139	80.8%	0.07
75%	59°F	4,468	367.5	28.1%	2,331	149	80.2%	0.07
	95°F	4,468	367.5	28.1%	2,331	149	80.2%	0.07
40%	59°F	2,535	192.5	25.9%	1,450	161	83.1%	0.07
	95°F	2,535	192.5	25.9%	1,450	161	83.1%	0.07

¹ All performance data based on fuel energy content of 1,020 Btu/SCF HHV

² Specification reflects the Ultera premium emission package. The standard emission package is available upon request.

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*	42'	14' 4"	5' 9"	19,250
Core system based on minimum width*	14' 4"	42'	5' 9"	
PM Heat Rejection subsystem*	4'	26' 9"	4' 4"	3,240
Largest part for delivery	4'	26' 9"	4' 4"	3,240
Heaviest part for delivery	4'	7' 4"	5' 9"	3,850

*Includes maintenance clearances.

Vendor Information

Tecogen, Inc. 45 First Avenue Waltham, MA 02451 (781) 466-6481 Jeffrey.Glick@tecogen.com www.tecogen.com

Vendor Statement

Tecogen manufactures, installs, and maintains high efficiency, ultra-clean, combined heat and power products that through patented technology, nearly eliminates criteria pollutants and significantly reduce a customer's carbon footprint. The InVerde e+ offers best in class efficiency resulting from cutting edge inverter technology, innovative power control, and a new and improved engine. The patented engine control technology provides improved stability and load turndown for operation down to 10% load. It is NYSIR listed for certified grid interconnection, is capable of 10 second rapid start after blackout, and requires just 4 inches of water column gas pressure, eliminating the need for costly pressure enhancement equipment. As a microgrid, the InVerde e+ is equipped with unique licensed CERTS software that allows a cluster of units to effortlessly and seamlessly align themselves to share the load (both real and reactive power) and control frequency without complex controls and switchgear. It has both UL2200 and UL1741 certifications, meeting the highest safety standards for engine generator assemblies and inverters.

Tecogen, Inc.

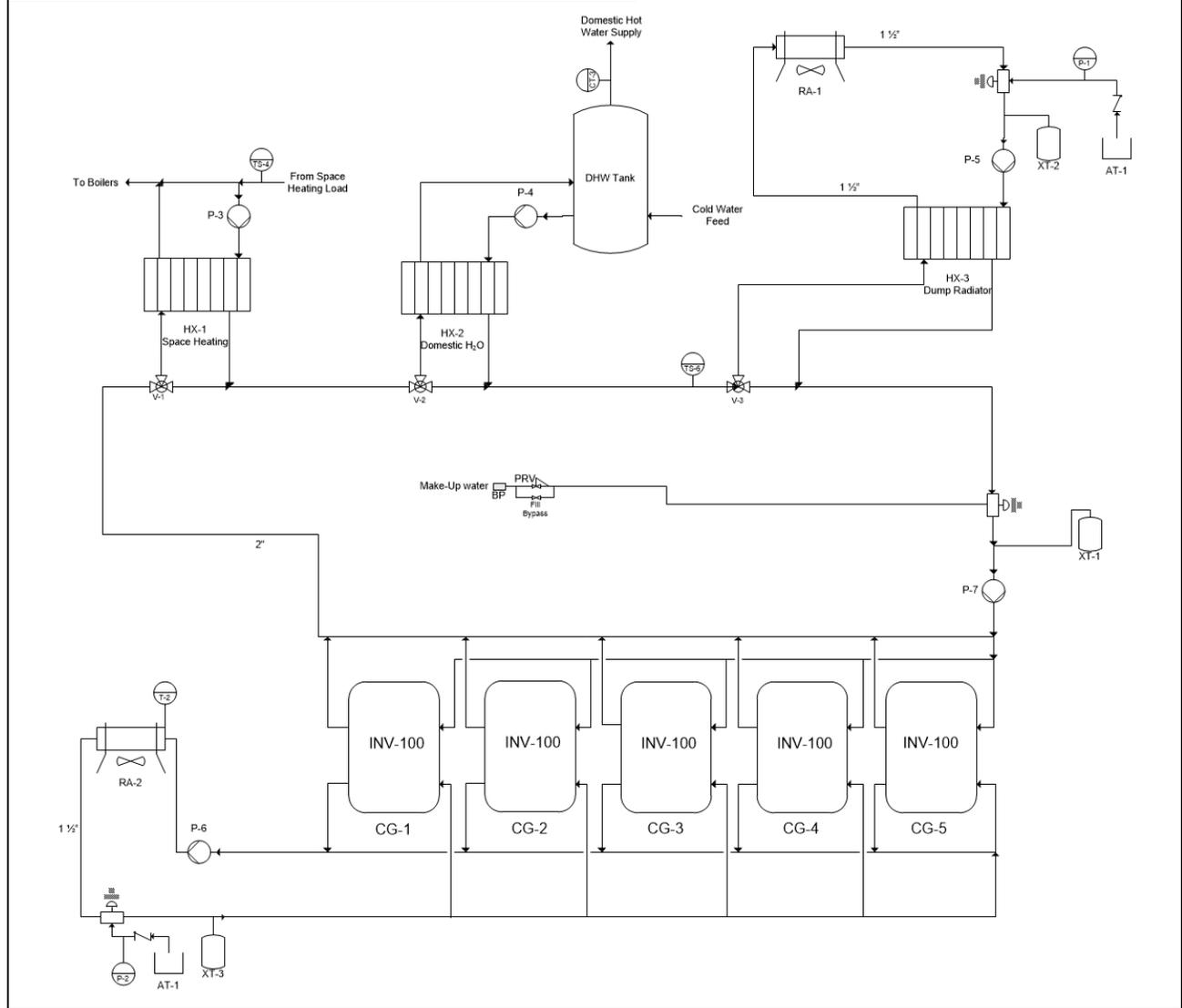
InVerde Ultera (INV-500e+)

500 kW

Device	Tag	Service	Manufacturer	Model #
Hot Water System				
Pump	P-3	Space Heating	Armstrong	4300-3x3x8-7.5 hp
Pump	P-4	Domestic Water Heating	Armstrong	4380-3x3x6-2 hp
Pump	P-5	Dump Radiator	Armstrong	4360-2B-5 hp
Pump	P-6	Electronics Loop	Armstrong	4360-1.25B-1.5 hp
Pump	P-7	Cogen Loop	Armstrong	4380-3x3x6-2 hp
Heat Exchanger	HX-1	Space Heating	Armstrong	W-1006-210-1
Heat Exchanger	HX-2	Domestic Water Heating	Armstrong	WX-1006-208-1
Heat Exchanger	HX-3	Dump Radiator	GEA	FG10X20-180
Dump Radiator (Engine)	RA-1	Engine Waste Heat Fluid Cooler ²	Cancoil	DFC102-A
Dump Radiator (Electronics)	RA-2	Electronics Loop Heat Fluid Cooler	Cancoil	DFC015-A
Gas Piping				
Pressure Regulator		Gas Regulator	Fisher	S202
Exhaust System				
Silencer		Engine Exhaust Noise Attenuation	Phillips & Temro	JCE-04-10075
Electrical				
Transformer ³	T-1	Transformer	Dongan	43-63150SH
Utility Protection Panel	UPP-1	Reverse Power Protection	Tecogen/Beckwith	M-3410A
Key Interlock	K-1	Standby Transfer Switch Protection	Kirk Key	TPS or TPSS

Notes:

1. The components listed may be substituted with approved equals.
2. The Fluid Cooler is sized to remove the total recovered thermal energy.
3. A transformer is required if the building service is 208/230 VAC





Tecogen, Inc.

InVerde Ultera (INV-600e+)

600 kW

Description

Type of prime mover	Number of prime mover units	Synchronous or Inverter	Type	Black-Start Capable	Qualification Status
RICE	6	Inverter	CHP-HW	Yes	Pre-Qualified

Performance - Heating Mode

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	Hot Water to Building @ 180°F			NOx lbs/MWh ²
					MBtu/h	Return °F	Net System Efficiency % (HHV)	
100%	59°F	7,050	591	28.6%	3,678	139	80.8%	0.07
	95°F	7,050	591	28.6%	3,678	139	80.8%	0.07
75%	59°F	5,362	441	28.1%	2,797	149	80.2%	0.07
	95°F	5,362	441	28.1%	2,797	149	80.2%	0.07
40%	59°F	3,042	231	25.9%	1,740	161	83.1%	0.07
	95°F	3,042	231	25.9%	1,740	161	83.1%	0.07

¹ All performance data based on fuel energy content of 1,020 Btu/SCF HHV

² Specification reflects the Ultera premium emission package. The standard emission package is available upon request.

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*	26'	25' 8"	5' 9"	23,100
Core system based on minimum width*	14' 4"	50'	5' 9"	
PM Heat Rejection subsystem*	7' 9.5"	13' 6"	5'	4,160
Largest part for delivery	7' 9.5"	13' 6"	5'	4,160
Heaviest part for delivery	7' 9.5"	13' 6"	5'	4,160

*Includes maintenance clearances.

Vendor Information

Tecogen, Inc. 45 First Avenue Waltham, MA 02451 (781) 466-6481 Jeffrey.Glick@tecogen.com www.tecogen.com

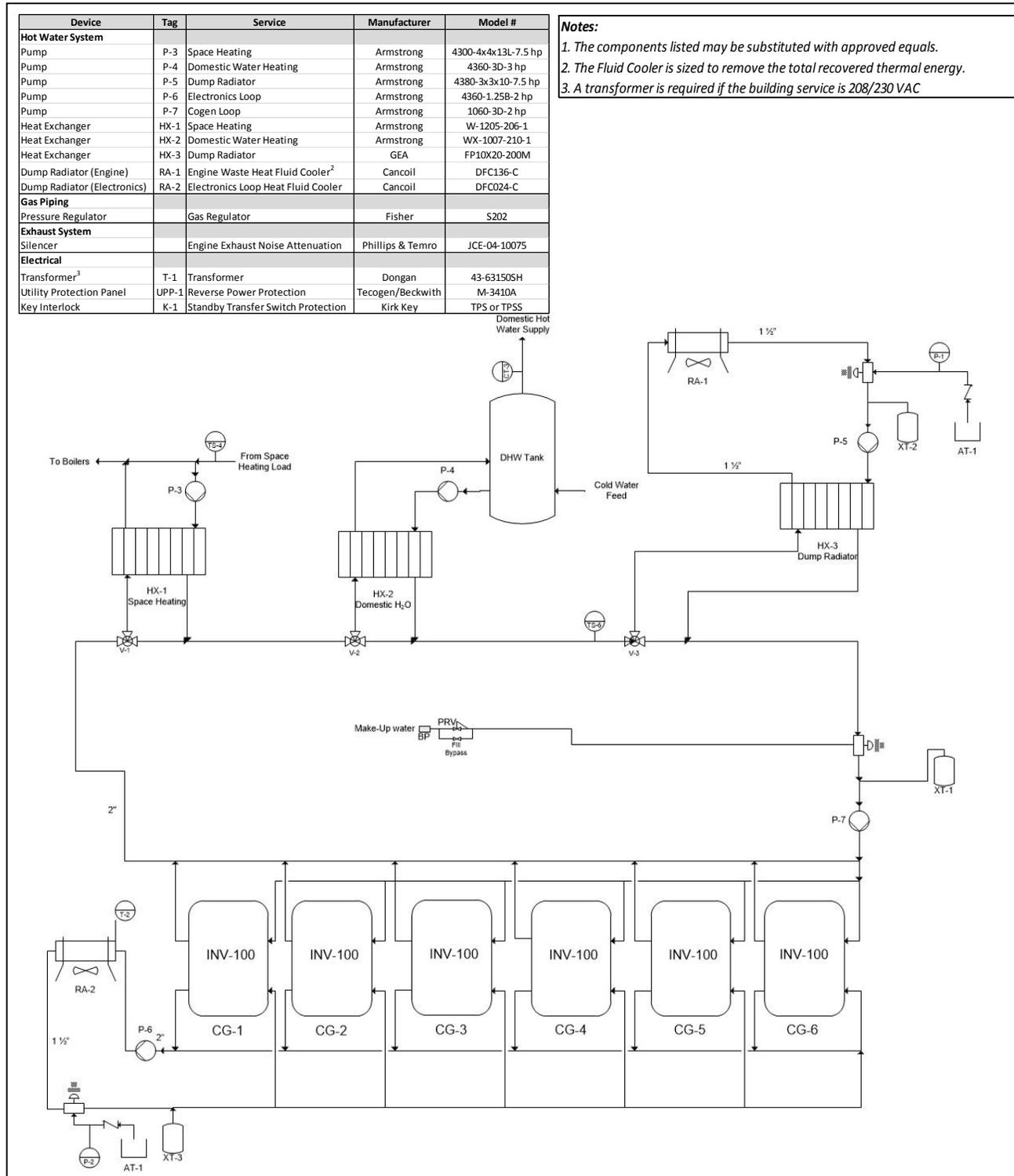
Vendor Statement

Tecogen manufactures, installs, and maintains high efficiency, ultra-clean, combined heat and power products that through patented technology, nearly eliminates criteria pollutants and significantly reduce a customer's carbon footprint. The InVerde e+ offers best in class efficiency resulting from cutting edge inverter technology, innovative power control, and a new and improved engine. The patented engine control technology provides improved stability and load turndown for operation down to 10% load. It is NYSIR listed for certified grid interconnection, is capable of 10 second rapid start after blackout, and requires just 4 inches of water column gas pressure, eliminating the need for costly pressure enhancement equipment. As a microgrid, the InVerde e+ is equipped with unique licensed CERTS software that allows a cluster of units to effortlessly and seamlessly align themselves to share the load (both real and reactive power) and control frequency without complex controls and switchgear. It has both UL2200 and UL1741 certifications, meeting the highest safety standards for engine generator assemblies and inverters.

Tecogen, Inc.

InVerde Ultera (INV-600e+)

600 kW





Tecogen, Inc.

InVerde Ultra (INV-1000e+)

1000 kW

Description

Type of prime mover	Number of prime mover units	Synchronous or Inverter	Type	Black-Start Capable	Qualification Status
RICE	10	Inverter	CHP-HW	Yes	Pre-Qualified

Performance - Heating Mode

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	Hot Water to Building @ 180°F			NOx lbs/MWh ²
					MBtu/h	Return °F	Net System Efficiency % (HHV)	
100%	59°F	11,750	985	28.6%	6,130	139	80.8%	0.07
	95°F	11,750	985	28.6%	6,130	139	80.8%	0.07
75%	59°F	8,937	735	28.1%	4,662	149	80.2%	0.07
	95°F	8,937	735	28.1%	4,662	149	80.2%	0.07
40%	59°F	5,069	385	25.9%	2,900	161	83.1%	0.07
	95°F	5,069	385	25.9%	2,900	161	83.1%	0.07

¹ All performance data based on fuel energy content of 1,020 Btu/SCF HHV

² Specification reflects the Ultra premium emission package. The standard emission package is available upon request.

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*	75'	30'5"	8'3"	150,100
Core system based on minimum width*	10'	254'8"	8'3"	
PM Heat Rejection subsystem*	15'8"	17'11"	4'4"	7,380
Largest part for delivery	7'9"	17'8"	5'	3,690
Heaviest part for delivery	4'	7' 4"	5' 9"	3,850

*Includes maintenance clearances.

Vendor Information

Tecogen, Inc. 45 First Avenue Waltham, MA 02451 (781) 466-6481 Jeffrey.Glick@tecogen.com www.tecogen.com

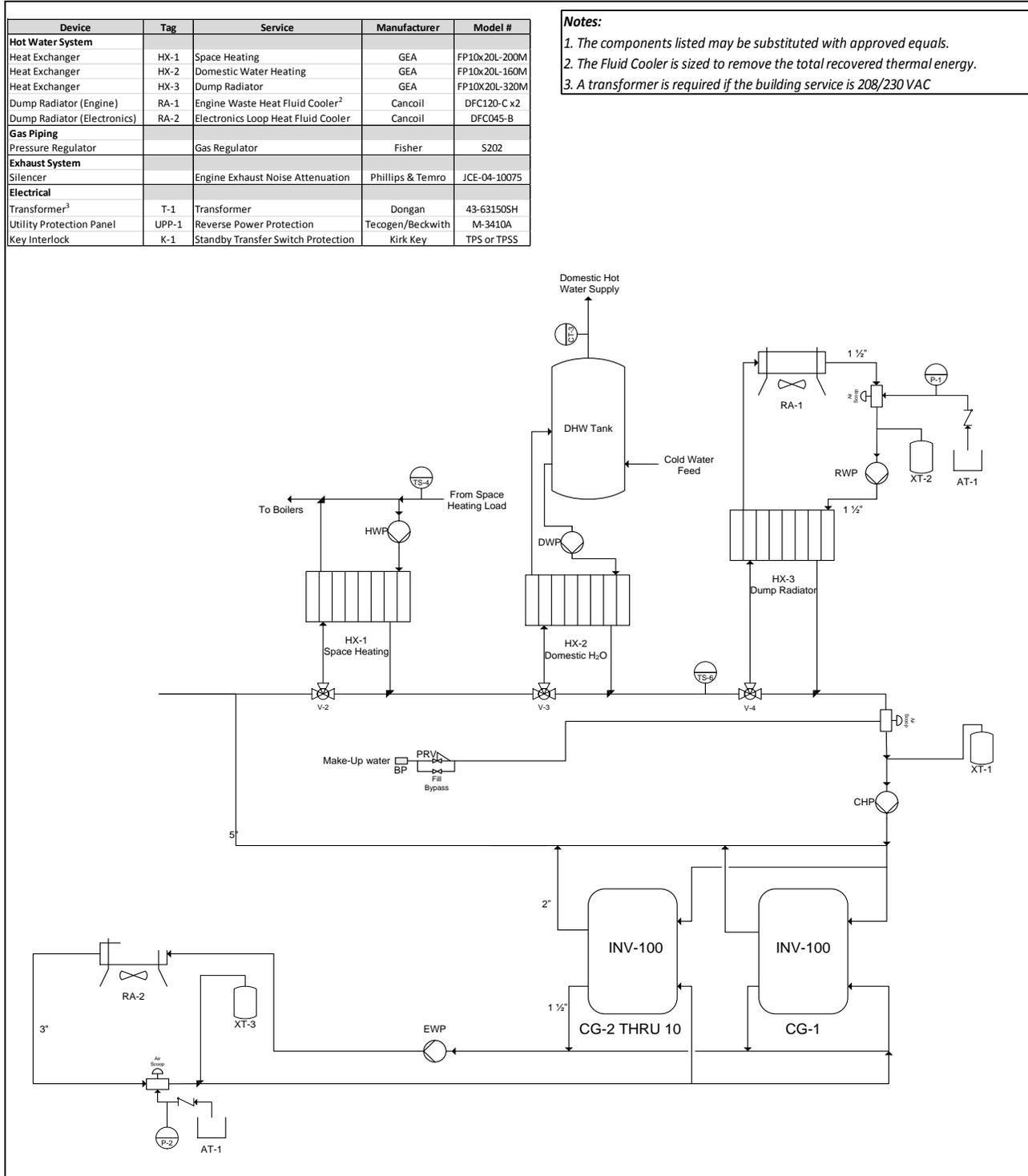
Vendor Statement

Tecogen manufactures, installs, and maintains high efficiency, ultra-clean, combined heat and power products that through patented technology, nearly eliminates criteria pollutants and significantly reduce a customer's carbon footprint. The InVerde e+ offers best in class efficiency resulting from cutting edge inverter technology, innovative power control, and a new and improved engine. The patented engine control technology provides improved stability and load turndown for operation down to 10% load. It is NYSIR listed for certified grid interconnection, is capable of 10 second rapid start after blackout, and requires just 4 inches of water column gas pressure, eliminating the need for costly pressure enhancement equipment. As a microgrid, the InVerde e+ is equipped with unique licensed CERTS software that allows a cluster of units to effortlessly and seamlessly align themselves to share the load (both real and reactive power) and control frequency without complex controls and switchgear. It has both UL2200 and UL1741 certifications, meeting the highest safety standards for engine generator assemblies and inverters.

Tecogen, Inc.

InVerde Ultra (INV-1000e+)

1000 kW





Unison Energy

UE-patruus100NG

100kW

Description

Type of prime mover	Number of prime mover units	Synchronous or Inverter	Type	Black-Start Capable	Qualification Status
RICE	1	Synchronous	CHP-HW	Yes	Conditionally Qualified

Performance

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	Hot Water to Building @ 194°F			NOx lbs/MWh
					MBtu/h	Return °F	Net System Efficiency % (HHV)	
100%	59°F	1077	95	30.1	487	<172	75.3	1.6
	95°F	1077	95	30.1	487	<172	75.3	1.6
75%	59°F	837	70	28.5	389	<172	75.0	1.6
	95°F	837	70	28.5	389	<172	75.0	1.6
50%	59°F	593	46	26.5	287	<172	74.9	1.6
	95°F	593	46	26.5	287	<172	74.9	1.6

Notes: 1 – All performance data based on fuel energy content of 1067 Btu/CF HHV

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*	45"	129"	71"	Approx. 7.165
Core system based on minimum width*	45"	129"	71"	
Heat Rejection subsystem*	Included in module	Included in module	Included in module	Included in module
Largest part for delivery	45"	129"	71"	Approx. 7.165
Heaviest part for delivery	45"	129"	71"	Approx. 7.165

*Includes maintenance clearances.

Vendor Information

Unison Energy, LLC 408 Mamaroneck Ave Mamaroneck, NY 10543 (914) 412-7181 Tim.Lukes@unisonenergy.com www.unisonenergy.com
--

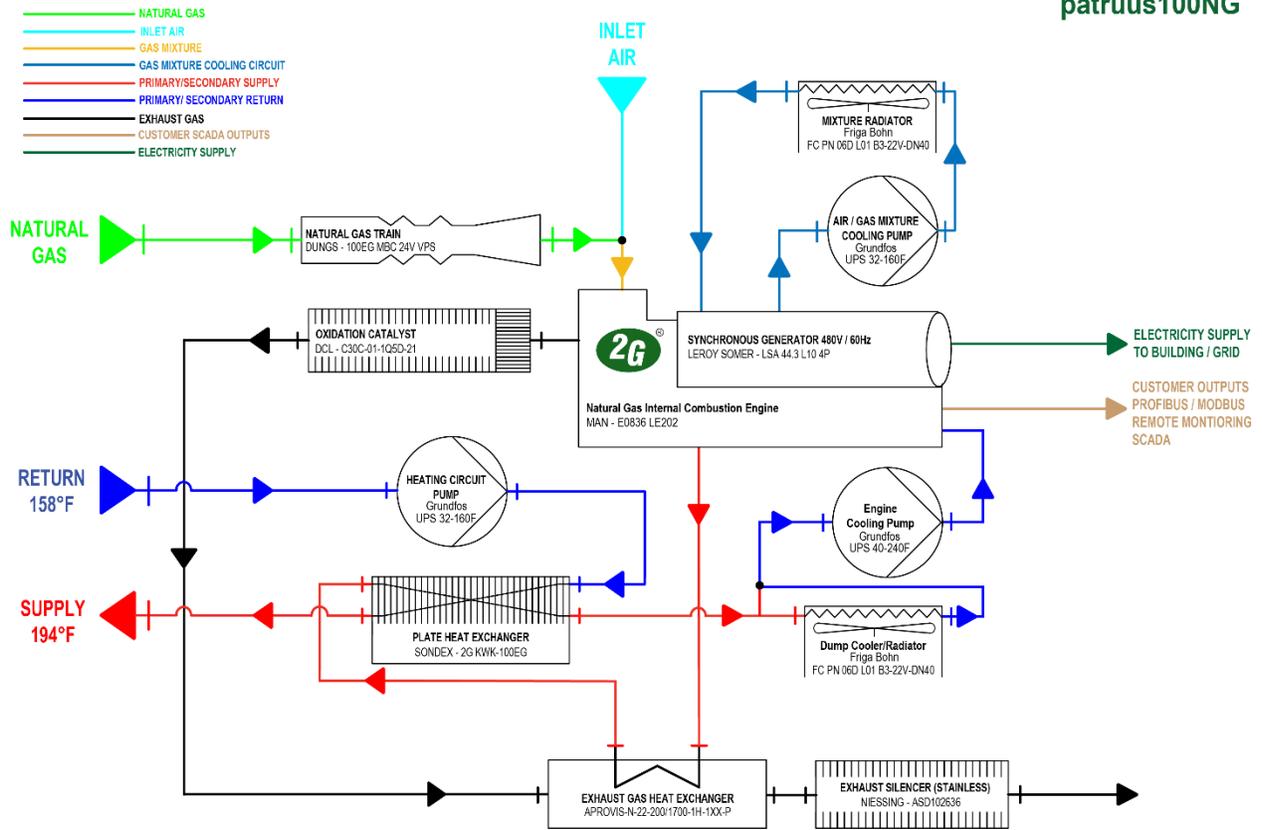
Vendor Statement

	Unison Energy provides Combined Heat and Power in standard packages under an Energy Service Agreement structure. Our systems reduce operating costs for our customers, increase reliability with on- site power generation, and reduce their carbon footprint. We install, operate, and maintain our packages with no up-front cost to our customers.
--	---

Unison Energy

UE-patruus100NG

100kW



General Notes:

- Heat exchangers are sized to deliver 194°F to the building. Alternative heat exchangers can be selected to supply 120°F or 180°F as required. CHP is equipped with return riser to supply 194°F supply temperature, independent of return temperature.
- Our modules will be configured to produce NO_x < 1.6 lbs/MW/hr. Lower emission requirements are achievable with our additional exhaust treatment options.
- NET kW shown above assumes the module has been installed and configured to self-support parasitic loads. All modules can be installed and configured to maximize exported kW to the grid or building; while parasitic loads are supported by utility.
- All 2G Modules up to 500kW can be configured as a “twin-pack” system – meaning the system can be supplied with 2 of the systems shown above and integrated into a single containerized package. This will then make the system eligible for N+1 configuration. Contact 2G Energy for additional information.

The above P&ID displays only the basic configuration components of our modules. We provide a wide range of optional components and configurations to maximize the value of CHP technology for each specific project.



Unison Energy

UE-patruus160NG

160kW

Description

Type of prime mover	Number of prime mover units	Synchronous or Inverter	Type	Black-Start Capable	Qualification Status
RICE	1	Synchronous	CHP-HW	Yes	Conditionally Qualified

Performance

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	Hot Water to Building @ 194°F			NOx lbs/MWh
					MBtu/h	Return °F	Net System Efficiency % (HHV)	
100%	59°F	1665	156	32.0	825	<172	81.5	1.6
	95°F	1665	156	32.0	825	<172	81.5	1.6
75%	59°F	1324	116	29.9	682	<172	81.4	1.6
	95°F	1324	116	29.9	682	<172	81.4	1.6
50%	59°F	994	76	26.5	536	<172	80.0	1.6
	95°F	994	76	26.5	536	<172	80.0	1.6

Notes: 1 – All performance data based on fuel energy content of 1067 Btu/CF HHV

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*	3'10"	11'3"	6'4"	8,377
Core system based on minimum width*	3'10"	11'3"	6'4"	
Heat Rejection subsystem*	Included in module	Included in module	Included in module	Included in module
Largest part for delivery	3'10"	11'3"	6'4"	8,337
Heaviest part for delivery	3'10"	11'3"	6'4"	8,337

*Includes maintenance clearances.

Vendor Information

Unison Energy, LLC 408 Mamaroneck Ave Mamaroneck, NY 10543 (914) 412-7181 Tim.Lukes@unisonenergy.com www.unisonenergy.com
--

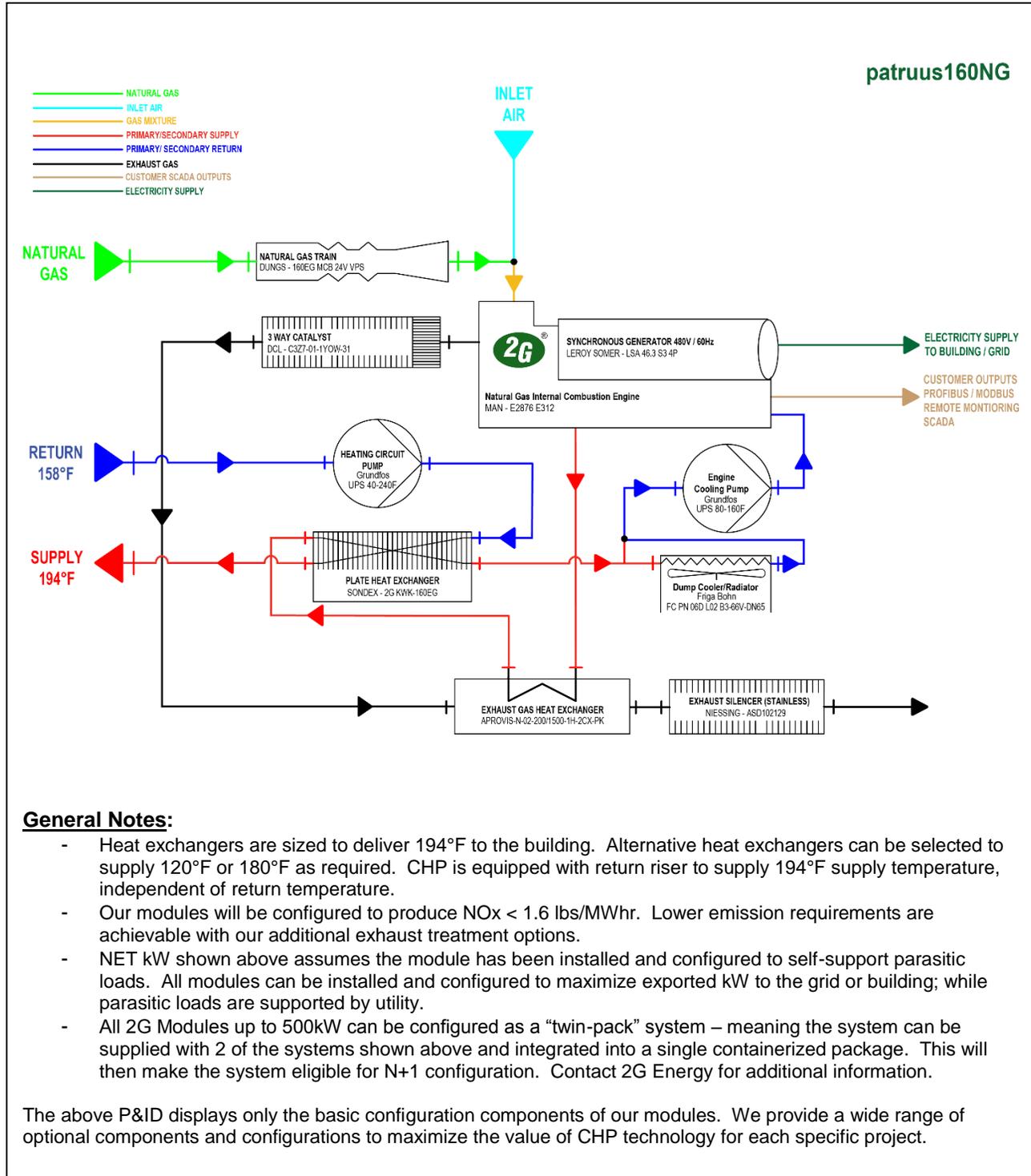
Vendor Statement

	Unison Energy provides Combined Heat and Power in standard packages under an Energy Service Agreement structure. Our systems reduce operating costs for our customers, increase reliability with on- site power generation, and reduce their carbon footprint. We install, operate, and maintain our packages with no up-front cost to our customers.
--	---

Unison Energy

UE-patruus160NG

160kW





Unison Energy

UE-patruus200NG

200kW

Description

Type of prime mover	Number of prime mover units	Synchronous or Inverter	Type	Black-Start Capable	Qualification Status
RICE	1	Synchronous	CHP-HW	Yes	Conditionally Qualified

Performance

% Load	Ambient Temperature	Fuel in MBtu/h (HHV) ¹	Net kW	Net Electric Efficiency % (HHV)	Hot Water to Building @ 194°F			NOx lbs/MWh
					MBtu/h	Return °F	Net System Efficiency % (HHV)	
100%	59°F	2127	194	31.1	959	<172	76.2	1.6
	95°F	2127	194	31.1	959	<172	76.2	1.6
75%	59°F	1712	144	28.7	819	<172	76.6	1.6
	95°F	1712	144	28.7	819	<172	76.6	1.6
50%	59°F	1272	95	25.5	649	<172	76.5	1.6
	95°F	1272	95	25.5	649	<172	76.5	1.6

Notes: 1 – All performance data based on fuel energy content of 1067 Btu/CF HHV

Footprint

	Width ft	Length ft	Height ft	Weight lbs
Core system based on minimum area*	51"	146"	87"	Approx. 8,377
Core system based on minimum width*	51"	146"	87"	
Heat Rejection subsystem*	Included in module	Included in module	Included in module	Included in module
Largest part for delivery	51"	146"	87"	Approx. 8,377
Heaviest part for delivery	51"	146"	87"	Approx. 8,377

*Includes maintenance clearances.

Vendor Information

Unison Energy, LLC 408 Mamaroneck Ave Mamaroneck, NY 10543 (914) 412-7181 Tim.Lukes@unisonenergy.com www.unisonenergy.com
--

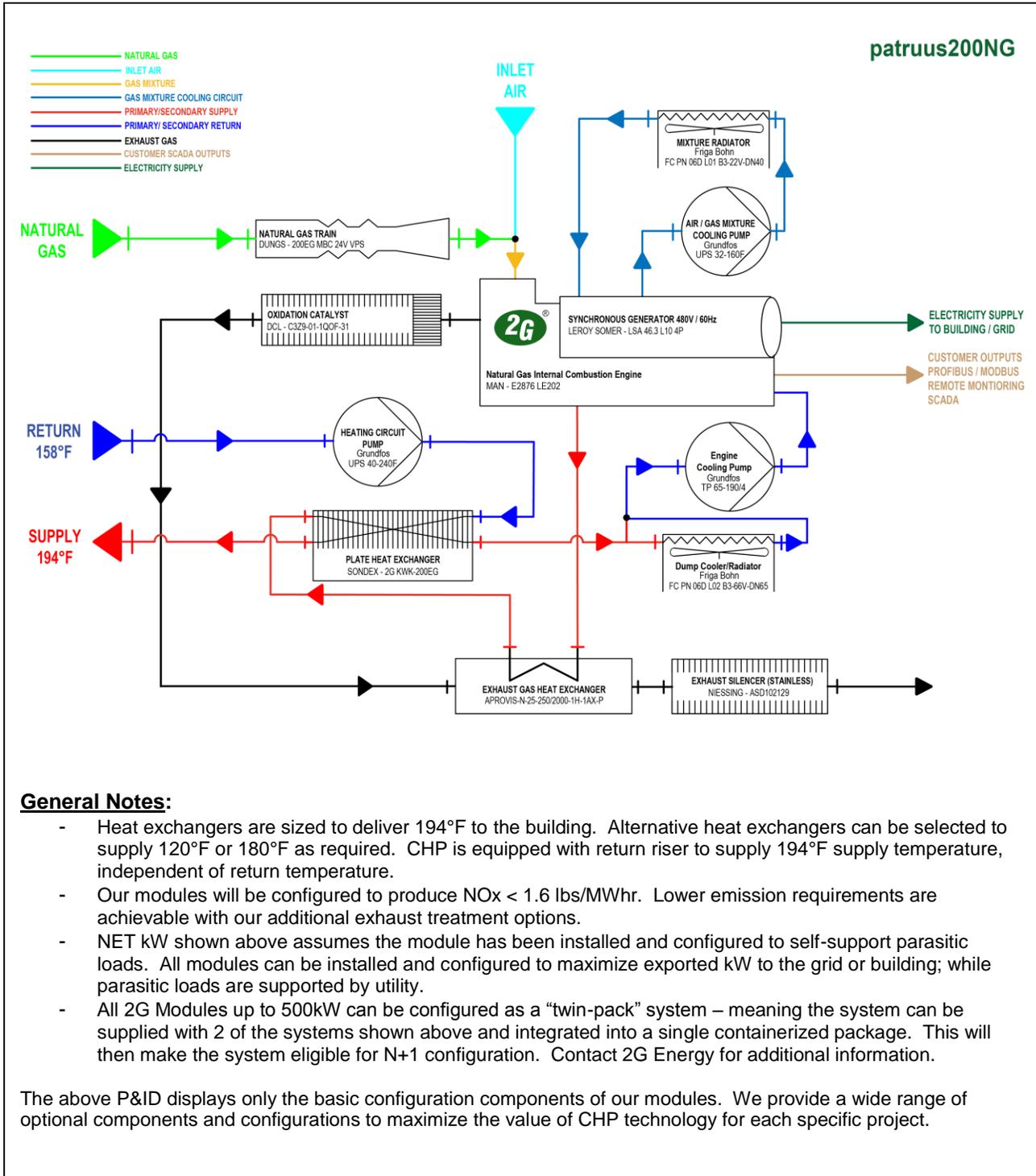
Vendor Statement

	Unison Energy provides Combined Heat and Power in standard packages under an Energy Service Agreement structure. Our systems reduce operating costs for our customers, increase reliability with on- site power generation, and reduce their carbon footprint. We install, operate, and maintain our packages with no up-front cost to our customers.
--	---

Unison Energy

UE-patruus200NG

200kW



General Notes:

- Heat exchangers are sized to deliver 194°F to the building. Alternative heat exchangers can be selected to supply 120°F or 180°F as required. CHP is equipped with return riser to supply 194°F supply temperature, independent of return temperature.
- Our modules will be configured to produce NOx < 1.6 lbs/MW hr. Lower emission requirements are achievable with our additional exhaust treatment options.
- NET kW shown above assumes the module has been installed and configured to self-support parasitic loads. All modules can be installed and configured to maximize exported kW to the grid or building; while parasitic loads are supported by utility.
- All 2G Modules up to 500kW can be configured as a “twin-pack” system – meaning the system can be supplied with 2 of the systems shown above and integrated into a single containerized package. This will then make the system eligible for N+1 configuration. Contact 2G Energy for additional information.

The above P&ID displays only the basic configuration components of our modules. We provide a wide range of optional components and configurations to maximize the value of CHP technology for each specific project.