

Small Scale Fuel Cell Cogeneration

Coca-Cola Bottling Plant in Elmsford, NY



The Coca-Cola Company – In Context

Coca-Cola Refreshments Operates in North America

200 + ➔ Countries in which we operate
(700k+ plus employees – 65k+ in NA)

300 + ➔ Franchise bottling partners

450 + ➔ Brands (3,500+ SKUs)

900+ ➔ Manufacturing plants globally
(78 in North America)

1,700,000,000 + ➔ Servings per day worldwide



Our Areas of Sustainability Emphasis



Water Stewardship

- *Improve Efficiency*
- *Protect Source Water*
- *Replenish Production*



Sustainable Packaging

- *Improve Design*
- *Increase Recycling*
- *Introduce Bio-Content*



Energy Efficiency & Climate Protection

- *Improve Efficiency*
- *Use Cleaner Fuels*
- *Deploy Alt Energy*

United Technologies Corporation

Fortune 50 corporation

\$58.2B in annual sales in 2011

~60% of sales are in building technologies



UTC Power



OTIS



Carrier



UTC Fire & Security



Research Center



Hamilton Sundstrand



PRATT & WHITNEY
DEPENDABLE ENGINES



Boeing

PureCell[®] Model 400 Solution

Key Features

Output and Efficiency

- 400 kW net electric output
- 1.5 MMBtu/hr heat output
- 42% electrical efficiency
- Up to 90% system efficiency



Design Features

- 10 year cell stack life
- Grid-independent operation
- Electric load following
- Multi-megawatt capacity
- Low pressure natural gas fuel
- Low noise and vibration
- Ultra-low emissions (CARB 2007 Certified)
- Certified to ANSI FC-1, UL1741

Coca-Cola / UTC Project - Elmsford, NY

(Second Site Installed in Hartford, CT)



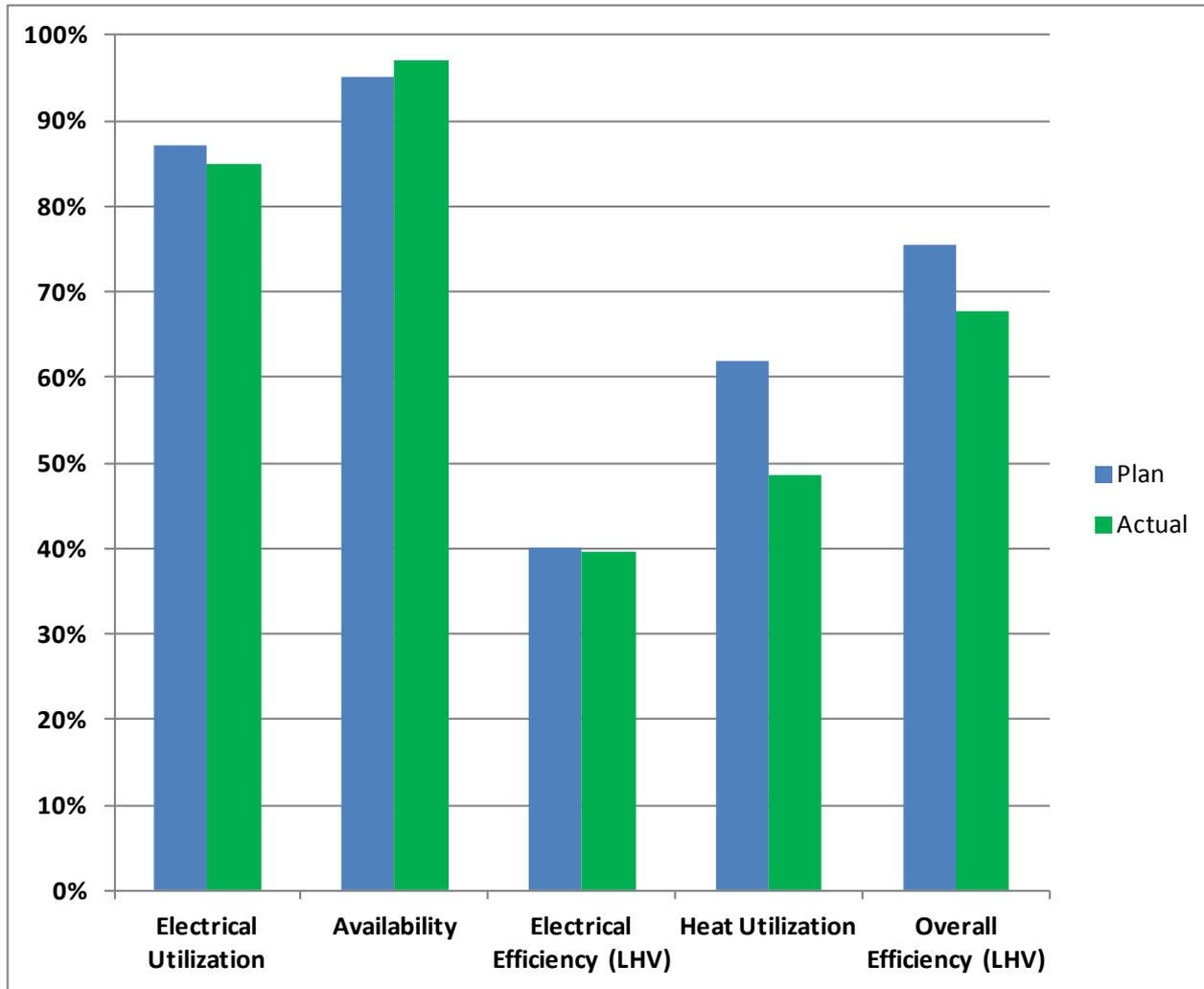
800 kW of Electric Power – *30%-40% of site's requirements*

2.2 mmBTU/hr of Hot Water – *60%-70% of site's requirements*

Operating near 70%-75% overall Efficiency – *Saving \$130k/yr*



Predicted vs. Actual Performance



Improvements Were Made Over Time

