

Flexible Technical Assistance

Service Definitions



NYSERDA
New York State Energy Research
and Development Authority

Primary Services

Targeted or Comprehensive Energy Study:

Targeted or Comprehensive energy studies result in detailed energy savings, costs savings, equipment costs and measure descriptions for each identified ECM. Targeted energy studies are intended to look at specific systems within a facility, whereas a comprehensive energy study is meant to be a detailed facility-wide energy study. Consultants should outline the intent of the study including existing building systems and potential ECMs in their Scope of Work. For more information on what is required in a Scope of Work, please refer to the FlexTech Energy Study Scope of Work Guidelines template.

Targeted or Comprehensive Retro-commissioning (RCx) Study

An evaluation of energy-using systems and their performance relative to design intent, operational needs of the building and its occupants, and operation and maintenance procedures. Retro-commissioning will focus solely on energy efficiency and result in recommendations to optimize system performance through energy efficiency and operation and maintenance recommendations.

Climate Action Plan or Sustainability Plan:

A comprehensive evaluation of existing climatic impact, sustainable practices, greenhouse gas emissions and long-term climate and sustainability goals, resulting in a climate action plan or sustainability plan. The plan will serve as a roadmap, or action plan, that identifies and prioritizes recommendations to assist with making informed decisions and understanding how to achieve the most effective emissions reductions that are in alignment with climate and sustainability goals. The plan should also quantify any energy impacts resulting from the proposed energy conservation measures.

Clean Heating and Cooling Study:

Clean heating and cooling studies are a core component of decarbonization and building electrification. These studies focus on technologies that co-produce space and/or water heating or cooling without the use of fossil fuels. Some examples of these technologies include:

Ground Source Heat Pump System (GSHP) – Ground-source heat pump systems (also referred to as geothermal heat pumps) provide space heating and cooling, as well as domestic hot water in some cases. The indoor heat pump unit and underground (or underwater) heat exchanging loop transfers thermal energy between and amongst the ground and the building.

Air Source Heat Pump System (ASHP) – Air source heat pumps provide space heating and cooling, as well as domestic hot water in some cases. These systems transfer heat between inside and outside air while creating a more comfortable indoor environment.

Variable Refrigerant Flow System (VRF) – Variable refrigerant flow heat pump systems modulate refrigerant flow as needed to maximize compressor efficiency. Where an ASHP systems requires separate refrigerant lines for each indoor unit, VRF systems allows multiple indoor units to connect to a single compressor.

Thermal Energy Network (TEN) – Thermal Energy Networks use a network of distribution pipes and heat pumps to provide space heating and cooling, as well as domestic hot water, to buildings connected to the network. TENs use clean thermal resources such as the ground, air, water, and waste heat.

Energy Master Planning:

A comprehensive evaluation of existing energy systems, current and future energy needs, and long-term energy goals, resulting in an energy master plan. The energy master plan will serve as a roadmap, or action plan, with a minimum two year outlook that identifies and prioritizes recommendations to improve energy efficiency and reduce greenhouse gas emissions. The energy master plan may assist with making informed decisions for procurement, infrastructure, management, and understanding how to achieve the most cost-effective energy reductions that are in alignment with clean energy goals.

Energy Advisor Services:

A single, large customer with a portfolio of buildings may engage a qualified FlexTech Consultant for long-term energy efficiency and carbon-mitigation technical assistance services. The FlexTech Consultant may provide long-term support on energy and carbon management issues, actively identify opportunities, and perform analyses with the customer's and NYSERDA's approval.

Carbon Mitigation Studies:

Carbon mitigation studies assist customers in making informed carbon management decisions at their facilities. This service may include, but is not limited to: performing carbon footprint analyses and developing carbon action plans to address carbon-intensive areas, water efficiency and water conservation studies, developing procurement strategies for acquiring carbon-neutral resources, equipment replacement or upgrade recommendations resulting in carbon mitigation, comprehensive carbon master planning for campus-type settings, or decarbonization studies. While the focus of the carbon mitigation study is on carbon reduction, the study should also quantify any energy impacts resulting from the proposed energy conservation measures.

School Bus Fleet Electrification Plan

A School Bus Fleet Electrification Plan (FEP) is a roadmap to electrify a school district or third-party school bus operator's entire school bus fleet by 2035 in compliance with state law. This includes a comprehensive evaluation of existing fleet operations, and depot electrical capabilities. For example, an FEP looks at the specifics of each fleet's routes, terrain, weather and utility service capacity. The plan will serve as a guide that prioritizes recommendations to help fleet owners make informed decisions about future bus and infrastructure purchases and installations.

Supporting Services

*The following Supporting Services are eligible if completed in combination with any of the primary services above.

Investigation of renewable energy technologies:

An evaluation of renewable energy technology solutions that generate electricity, resulting in recommendations economically viable and appropriate for the facility. Energy storage studies have specific requirements and are excluded from this activity.

Greenhouse Gas Emission Inventory:

An inventory and analysis of a facility's greenhouse gas emissions relative to building type, space usage, and clean energy goals. The results of the inventory are generally presented as metrics, tables, and graphics within a report or as its own document.

Installation of permanent meters or submeters:

The purchase and installation, of permanent meters or permanent sub-meters to assist with the technical assistance effort.

Grant Writing (Priority Districts)

Eligible grant writing activities include, but are not limited to:

- Writing complete or partial grant proposals.
- Editing grants written by school's staff.
- Supporting and coaching school's staff members who are writing grants.
- Providing assistance in identifying and facilitating collaborations/partnerships.
- Following-up on proposals submitted.