

Blueprint Supplement: Utilities and Energy Providers 101

Introduction

The Energy Efficiency and Conservation Block Grant (EECBG) Program Blueprints are model projects and activities that EECBG participants can pursue, such as energy planning, energy efficiency, renewable energy, transportation electrification, clean energy finance, and workforce development. The Department of Energy has developed Blueprint Supplements to provide context and connection for key activities found in the Blueprints.

This supplement covers the role of utilities in your EECBG project and how the type of utility serving your community may affect this engagement.

Utility Roles in EECBG Projects

Utilities can be helpful and often necessary to engage in local energy projects. Utility roles will vary depending on your project.

ENERGY PLANNING

Utility companies may be able to provide aggregate energy data for use in benchmarking and goal setting. Data separated by sector (e.g., residential, commercial, and industrial) is most useful, with further segmentation by census tract or neighborhood, if possible.

Additionally, working with utilities to understand future planned rate increases, and energy generation site commissioning/decommissioning is a crucial foundation for understanding the potential of future projects.

Tip: Submit your data request early in the planning process, as it may take some time to receive the data. Some cities and states have already rolled out benchmarking ordinances, which generally provide a streamlined process for accessing energy use data. Otherwise, the utility account representative assigned to your organization, the utility's government liaison (if the utility has one), or a

IN THIS DOCUMENT:

Utilities' Roles in EECBG Projects

> Utilities need to be involved for projects that require connection to the grid. Many can also help by providing data for energy planning, building benchmarking, or energy audits.

✓ Utility Types and Structures There are many different types of utilities with different funding and regulatory structures. The type of utility may influence the type of projects they can support.

Utility Regulators Utility regulators and other market actors influence utility energy and spending requirements.

How to Engage with your Utilities

Actions you can take to prepare for and begin working with your local utilities on your project.





benchmarking or data access manager may be able to help you identify how to submit the data request. Submitting requests often requires filling out forms or enrolling in an online, utility-specific program.

Tip: Review this step-by-step guide from ENERGY STAR[®] to determine if a utility provides customers with energy benchmarking data and sample emails for reaching out to utilities without a pre-defined process, <u>Helping Clients Obtain Utility Data to Facilitate Benchmarking (ENERGY STAR)</u>.

ENERGY EFFICIENCY AND BUILDING UPGRADES

Some utilities offer energy audits as part of their customer service or energy efficiency programs, along with information on common ways customers can reduce their energy use through efficiency upgrades, equipment programming, and everyday actions. Some utilities have incentive programs for building energy upgrades, which can be combined with other funding sources for greater impact. ENERGY STAR[®] provides a search tool for available rebates offered through utilities: <u>Find Rebates on Efficient</u> <u>Commercial Building Equipment</u>

Tip: Check your utilities' websites for information on rebate and incentive programs and ask the utility account representative assigned to your organization and/or the utility's government liaison about available programs. Your organization's facilities and communications office may be able to connect you with utility representatives. Additional resources for finding rebate information are available in the Engaging with Utilities Section.

RENEWABLE ENERGY AND INTERCONNECTION

Renewable energy projects need careful planning and consideration to function within the existing grid (i.e., to become "interconnected") to ensure the electrical infrastructure can support the additional power that will be generated. Utilities may need to adjust their systems and equipment before the renewable energy project can be put into use. This can be a lengthy process (e.g., over a year), so it is important to contact utilities early in the planning process.

Tip: Start by working with your renewable energy project developer. Because of the significant role of interconnection in renewable generation projects, developers often closely track the relevant utilities' interconnection processes, requirements, and expected review/approval timelines. Consider asking potential contractors about their experience/familiarity with your utility's interconnection process as part of your procurement process.



Left: View of Sacramento Municipal Utility District's solar photovoltaic panels with the twin cooling towers of the Rancho Seco Nuclear Plant in background. Source: DOE **Right:** Forks of Butte hydropower facility in Magalia, California. Source: DOE







Installing large-scale electric vehicle (EV) charging equipment also requires your utility to assess electrical service capacity and infrastructure. Utilities may also offer incentives for EV charging stations or fleet electrification.

Tip: Consult your utility early in the process to ensure project viability and confirm electrical capacity. Your utility's website may have information on EV charging along with specific contact information. Discuss the project with your assigned utility account representative and/or your organization's energy manager– there may be special billing rates, time-of-use discounts, or incentives available for EV charging equipment. It may also be financially advantageous or required to add a separate utility meter for your EV charging locations (instead of having it connect to an existing building's meter), depending on how your billing rates are structured.



Landscape of electric grid infrastructure. Source: DOE

The Utility and Energy Provider Landscape

UTILITY AND ENERGY PROVIDER TYPES

There are several types of utilities, and all of them function slightly differently. The type of utility determines its decision-making process, approval procedures, and types of programs the utility can offer. Most states and some communities will have more than one type of utility operating in the area.

Investor-Owned Utilities (IOUs)

IOUs are one of the most common utility types. Because IOUs have a monopoly in their service territories, they are heavily regulated by state public utility commissions, which can influence the types and scale of renewable, efficiency, and transmission projects the utilities can pursue. As for-profit entities, IOUs focus on projects that offer a favorable return on investment, which can bias them toward larger-scale projects. Many IOUs have recently pledged steep emissions reductions, requiring them to undertake more renewable energy and efficiency projects. In some cases, these pledges lead to additional resources to support customers' projects. Examples of IOUs in the U.S. include Dominion Energy, Duke Energy, National Grid, and Xcel Energy.





Electric Cooperatives

Co-ops are private, non-profit providers that are "owned" or controlled by customers, referred to as members. Co-ops are often seen in suburban or rural areas and frequently rely on federal and state grants, such as those from the USDA's Rural Utilities Service, to fund renewable energy projects. Examples of electric co-ops in the U.S. include the Rio Grande Electric Cooperative, SECO Energy, and the Allegheny Electric Cooperative.

Municipal Utilities

Municipal Utilities or "munis" are non-profit, public entities that are generally controlled by a city government. They must navigate local regulations and policies, which can vary widely and impact project timelines and costs. Examples of large municipal utilities in the U.S. include the Los Angeles Department of Water & Power or Austin Energy in Austin, Texas, but the vast majority are serving smaller communities.

Public Utility Districts (PUDs)

A PUD is a local, non-profit utility generally formed through a voting process and governed by a locally elected board. Because of this, their projects often reflect the priorities and values of the local community. Many PUDs set ambitious sustainability goals and pursue projects that enhance local resilience and reduce environmental impact. They focus on projects

OTHER MARKET ACTORS

Federal Utilities. Federal Utilities, such as Tennessee Valley Authority (TVA) and Bonneville Power Authority (BPA), produce energy for their member municipal utilities. These entities sometimes provide educational resources related to clean energy projects but would not be a first point of contact for EECBG project coordination.

Rural Utilities Service (RUS). RUS is a federal program through the USDA Rural Development division that provides loans and grants to support the development and modernization of rural electric infrastructure, including renewable energy projects. They offer technical assistance to help rural utilities plan and implement renewable energy projects, and awareness of their programs may be useful for community energy planning. RUS projects often aim to improve economic opportunities and quality of life in rural areas.

Delivered Fuel Vendors. Propane and fuel oil are common fuel sources for heating in some locations that are not connected to a natural gas service line and do not use electricity for heating. These fuel types, delivered by vendors, are common in rural and Tribal areas, as well as certain regions such as the Northeast and Mid-Atlantic U.S.

that provide direct benefits to the community, such as job creation and local economic development. Examples of PUDs in the U.S. include the Snohomish County Public Utility District and the Nebraska Public Power District.

UTILITY REGULATORS

Regulators create rules that utilities must abide by and influence utility rates and services through an approval process. Regulators may also create rewards or penalties for utilities who meet or fail to meet certain clean energy or efficiency requirements.

- Federal Energy Regulatory Commission (FERC). FERC regulates the interstate transmission of electricity, natural gas, and oil. It oversees the integration of distributed energy resources and ensures fair access to the grid.
- State Public Utilities Commissions (PUCs) and Departments of Commerce. State PUCs and Departments of Commerce may also have regulatory authority over many types of utilities, particularly regarding rates, service standards, and program offerings.





• State Legislatures. State legislatures can create laws that impact the function of utilities operating in the state. Recent examples include laws specifying that certain percentages of energy supplied in the state must meet emissions requirements by a deadline (i.e., 100% clean energy by 2040). States can also decide whether utilities can offer efficiency and other types of voluntary programs.





Fort Thompson Substation in South Dakota. Source: Forrest "Joerge" Bolt of the Huron Electrician Crew

Engaging with Utilities

The goal and purpose in engaging with utilities will vary depending on your clean energy project and project team. Check with your operations, facilities, communications office, or procurement colleagues to determine if your utilities have assigned or designated points of contact for your organization, and consider the following actions as you determine how to proceed:

Identify Utilities in Your Community

- Communities with larger geographic areas (e.g., states, large counties, large Tribal regions) may have more than one energy provider for each service in your area and a mix of utility types (i.e., IOUs, municipal power companies, etc.). Utilities and government corporation commissions may have maps of their service territories available online. A general online search based on your area's zip codes, speaking with your organization's facilities staff, and looking at the heating fuel sources identified in the <u>US Census</u> for residences could help identify the utilities that serve your area.
- For energy planning, in addition to identifying local utilities, consider whether residents in your area use delivered fuels, like propane or fuel oil. Although different in structure than a utility company, engaging with these suppliers is important for holistically understanding your area's energy needs and potential for fuel source transitions. Another important consideration to energy planning is the relative cost of energy of your community and how changes in fuel sources could impact it.

Research Utility Offerings and Establish Contacts

- Search local utility websites and other federal resources to identify relevant program offerings, such as incentive programs, in your area. Examples include:
 - Database of State Incentives for Renewables & Efficiency (DSIRE). A database of information on incentives and policies that support renewables and energy efficiency in the United States.





- Database for Incentives and Joint Marketing Exchange (DIME). An online, searchable tool to identify incentive and marketing opportunities for promoting ENERGY STAR[®] certified products.
- <u>ENERGY STAR® Rebate Finder</u>. Offers two databases of rebates and special offers available based on zip code for ENERGY STAR® certified products and for utilities offering commercial building product and program incentives.
- Compile utility services and offer program contacts. Some utilities contract support for program implementation from other organizations, who may be the appropriate contact for your project.
- Look for regional news articles over the last 3-5 years that involve your utility on topics that relate to your project to build a deeper understanding of the utility's related activities, projects, and context.

Meet with Utility Representatives

- An initial virtual meeting is a good way to identify collaboration opportunities, relevant program offerings, additional contacts, and next steps. You can start by reaching out to representatives and points of contact that already work with your organization and asking them to help connect you to the right person to support your organization's interests and goals.
- Communities in areas or regions serviced by the same utility could benefit from collaboration and dialogue to share lessons learned and best practices for working with the utility provider.

Engage in the Utility Regulatory Process



Grid infrastructure on a hill. Source: EPA

Depending on your utility (for example, jurisdictions with IOUs), it may be possible for local governments to engage in regulatory proceedings that affect utility rates, incentive programs, and resource investments. Proceedings can be highly detailed and technical. Potential resources you can use to learn more about the process, the current and historical status of a particular issue, and where to find informational resources specific to your utility could include:

- Coordinating with other local governments or representative(s) for your organization who have tracked and engaged in past proceedings.
- Contacting your state's Association of Counties or Municipal League to learn if they are monitoring utility regulations and potential impacts on localities and residents in your area.
- Technical assistance and training programs such as the <u>DOE Renewable Energy Siting through</u> <u>Technical Engagement and Planning (R-STEP™) Program</u>.
- Policy- and legal-focused environmental non-profits. As an example, two reoccurring regulatory focuses that may relate to your project are Integrated Resource Planning/Plans (IRPs) and rate cases. These two resources offer a background introduction on these topics:
 - <u>National Council on Energy Policy's Local Government Engagement with Public Utility</u> <u>Commissions Mini Guide (IMT)</u>
 - Pacific Northwest National Laboratory's Integrated Resource Planning in the U.S. Overview

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