

THE RHODE ISLAND COMPREHENSIVE PLANNING STANDARDS
GUIDANCE HANDBOOK SERIES

**GUIDANCE HANDBOOK #9:
PLANNING FOR ENERGY**

Revised June 2018

The plan must consider energy production and consumption.

The Rhode Island Comprehensive Planning and Land Use Regulation Act, RIGL subsection 45-22.2-6(b)(8)

ACKNOWLEDGEMENTS

The Rhode Island Comprehensive Planning Guidance Handbook Series is the result of over twenty-four months of cooperation and coordination among state agencies, local planners, and other professionals interested in helping cities and towns craft better comprehensive plans. The guidance development process was overseen by the Comprehensive Planning Advisory Committee, a dedicated group of planning, land use, legal, and community professionals who worked diligently to develop content on the comprehensive planning process and to review topical content as it was developed. Without this group the manual would not have become reality.

Additionally, the topical content for the guidance handbook series was developed in conversation with numerous experts. These knowledgeable individuals are the reason that the manual is helpful, user-friendly, and thorough.

The guidance handbook series was prepared by Chelsea Siefert, Principal Planner. Ms. Siefert was guided by Karen Scott, Assistant Chief and Kevin Nelson, Supervising Planner, and assisted by Caitlin Greeley, Principal Planner.

COMPREHENSIVE PLANNING ADVISORY COMMITTEE

Sheila Brush, former Director of Programs, Grow Smart RI

Bill DePasquale, Director of Planning, City of Warwick

Ann-Marie Ignasher, former Town Planner, Town of Foster

Nancy Letendre, Principal Planner, Mason & Associates, Inc.

Sue Mara, Assistant Director of Planning and Redevelopment, City of Pawtucket

Martha Matchnik, former Director of Healthy Aging, YMCA of Greater Providence

Krista Moravec, Environmental Planner, Horsley Witten Group, Inc.

Bonnie Nickerson, Director of Planning and Development, City of Providence

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Pam Sherrill, former Town Planner, Town of Johnston

TOPIC EXPERTS

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Ken Ayars, RI Department of Environmental Management

Jim Boyd, RI Coastal Resource Management Council

Meredith Brady, RI Department of Transportation

Paige Bronk, Town of North Kingstown

Michelle Burnett, RI Emergency Management Agency

Kathleen Crawley, RI Water Resources Board

Teresa Crean, URI Coastal Resources Center/RI Sea Grant

Steve Devine, RI Department of Transportation

Joe Dias, RI Department of Environmental Management

Lauren Faria, RI State Council on the Arts

John Flaherty, Coalition for Transportation Choices

Elizabeth Francis, RI Council for the Humanities

Rupert Friday, RI Land Trust Council

Grover Fugate, RI Coastal Resources Management Council

Scott Gibbs, Economic Development Foundation of RI

Julia Gold, RI Department of Health

Rick Greenwood, formerly of RI Historical Preservation and Heritage Commission

June House, RI Office of Housing and Community Development

Paul Jordan, RI Department of Environmental Management

Lorraine Joubert, URI Nonpoint Education for Municipal Officials

Nate Kelly, Horsley Witten Group

Meg Kerr, Watershed Counts

Sarah Kite, RI Resource Recovery Corporation

Tom Kravitz, Town of Burrillville

Eliza Lawson, RI Department of Health

Mike McGonagle, RI Resource Recovery Corporation

Danny Musher, RI Office of Energy Resources

Bill Patenaude, RI Department of Environmental Management

Ken Payne, RI Agricultural Partnership

Amy Pettine, RI Public Transit Authority

Nicole Pollock, formerly of RI Department of Environmental Management

Leo Pollock, formerly of Southside Community Land Trust

Dan Porter, RI Airport Corporation

Lisa Primiano, RI Department of Environmental Management

Amy Rainone, Rhode Island Housing

Randy Rosenbaum, RI State Council on the Arts

Pam Rubinoff, URI Coastal Resources Center/RI Sea Grant

Rachel Sholly, RI Office of Energy Resources

Malcolm Spaulding, University of Rhode Island

Jan Reitsma, formerly of Governor Chaffee's Office

Jonathan Stevens, former State Historic Preservation Officer

Jessica Stimson, RI Emergency Management Agency

Elizabeth Stone, RI Department of Environmental Management

Valerie Talmage, Preserve Rhode Island

Michael Tondra, RI Office of Housing and Community Development

David Tremblay, RI Department of Labor and Training

David Vallee, National Oceanic and Atmospheric Administration

Marcel Valois, Commerce RI

Bob Vanderslice, formerly of RI Department of Health

Mike Walker, Commerce RI

Scott Wolf, Grow Smart RI

Art Zeman, RI Department of Environmental Management

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INTRODUCTION

This handbook is meant to be an accompaniment to the Rhode Island Comprehensive Planning Standards Manual (“the Standards Manual”), providing additional information on the energy-related standards contained within the manual, as well as general guidance on planning for energy. The Rhode Island Comprehensive Planning Standards Manual and the other guidance handbooks in the series can be found online at www.planning.ri.gov/statewideplanning/compplanning/.

This manual is split into three sections. [Section 1 - General Information on Planning for Energy](#) provides general information, including the purpose of doing so, relevant documents to review and ways to connect energy and the other topical areas. [Section 2 - Fulfilling the Standards](#) provides information on satisfying the specific requirements presented in the Rhode Island Comprehensive Planning Standards Manual. [Section 3 - Craft a Better Plan](#) provides additional recommendations for addressing energy within a comprehensive plan that are not required for State approval but would strengthen the plan’s overall efficacy.

NOTES

In some cases, this guidebook presents “notes” that are relative to the content being discussed. Each note that occurs within the text will be tagged with a symbol to alert the reader to the note’s purpose, as shown below.



This symbol is used to identify references to the Rhode Island General Laws (RIGL). Blue text within this note provides a link to the actual RIGL citation.



This symbol alerts the reader to something that is required for State approval.



This symbol alerts the reader to potential data sources.



The text following this symbol provides additional suggestions to enhance comprehensive plans.



This symbol alerts the reader to sample goals, policies and actions that would fulfill the requirements.



This symbol indicates general information that is secondary to the main point of the text, but could be helpful to the municipality.



This symbol alerts the reader to a cross-reference within the guidebook series. If a concept is mentioned in the text area and more information on the concept is available elsewhere in the guidebook series, this note will point the reader to where to find it.

This handbook includes standards for complying with the requirements of the Comprehensive Planning Act. A standard may: 1) reiterate a requirement found in the Act; 2) provide specifics to clarify a requirement of the Act; 3) describe processes that if followed will help ensure State approval; or 4) identify information that while not specifically required by the Act, has been identified as vital to supporting the intents of the Act. Those standards that describe processes or information not *required* by the Act are listed as recommendations.

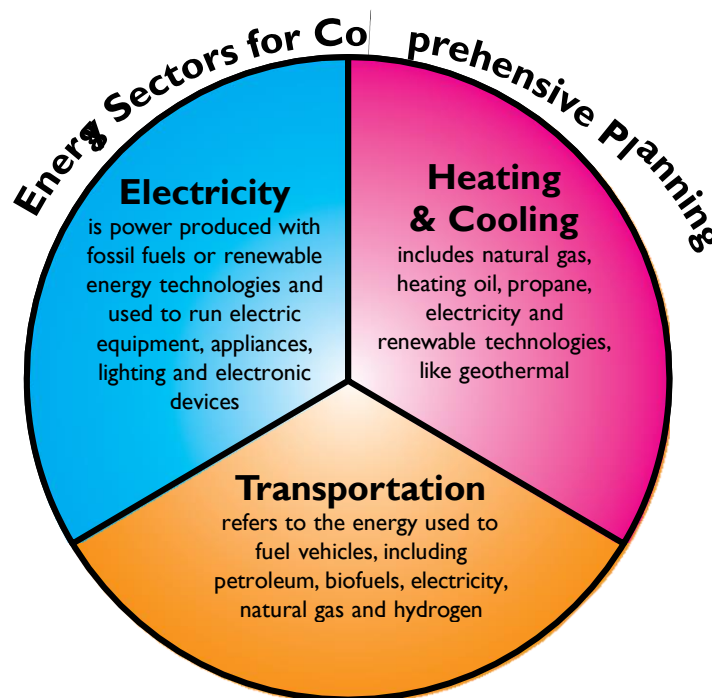
SECTION 1. GENERAL INFORMATION ON PLANNING FOR ENERGY

WHAT IS ENERGY?

en•er•gy (n): usable power (as in heat or electricity); also: the resources for producing such power

Miriam-Webster Dictionary,

In comprehensive planning, the term “energy” refers to three sectors - electricity, heating and cooling, and transportation - and the resources used to create the energy for those sectors. In some cases, energy resources are used directly by machinery, equipment and devices. For example, petroleum is used to fuel vehicles, and natural gas is often used to run heating systems. Other resources such as sunlight, water and wind, must be converted to electrical energy before being used.



“Planning for energy” means thinking and acting proactively to make sound energy consumption and production decisions in each of these three sectors. Through the comprehensive plan, municipalities can adopt policies and implement actions to conserve energy, to use energy more efficiently and to enable the use of renewable resources in energy production.



For comprehensive planning, the term “energy” does not include energy generation facilities over 40 megawatts. These type of facilities, of which there are only 6 in the state, are very large, and are regulated by the Energy Facility Siting Act, RIGL section 42-98-3.

WHY INCLUDE ENERGY?

REDUCING MUNICIPAL ENERGY COSTS

The comprehensive planning process can be used to identify and assess expenditures associated with municipal energy consumption, both in buildings and for municipally-owned vehicles. Planning to implement efficiency and conservation measures in those areas can help municipalities reduce spending

on energy, both in terms of monthly spending and for ongoing maintenance. Also, the comprehensive planning process can help to identify municipally-owned areas where renewable energy production facilities might be suitable, potentially providing opportunities to generate revenue for the municipality.

COLLECTIVE DECISION-MAKING

While many energy decisions lie outside of the realm of municipal decision making, some key local decisions have a significant impact on energy consumption and production, both in the public and private sectors. Generating discussion about the benefits and impacts of renewable energy production, energy conservation, and energy efficiency through the comprehensive planning process allows communities to decide collectively, based on a shared understanding of the issues, the best ways to make smart energy decisions in the best interest of the community.

CLIMATE CHANGE MITIGATION

Planning for reduced energy consumption is one way that a municipality can plan for climate change mitigation. When municipalities take steps to increase their energy efficiency, they are also taking steps to reduce greenhouse gas emissions, which are key players in the accelerated rate of climate change currently facing the world. While the efforts of one municipality alone are unlikely to provide any significant mitigation of climate change, the combined efforts of all of the municipalities in the State can make a big difference.



The required content for related to energy stems from the Rhode Island Comprehensive Planning and Land Use Regulation Act, RIGL subsection 45-22.2-6(b)(8).

RELEVANT STATE GOALS AND POLICIES

Every comprehensive plan must be consistent with and embody the State's goals and policies for energy as found in the State Guide Plan and the laws of the State. The goals and policies listed below represent the main themes of the State's goals and policies for energy and are intended to provide focus as to which aspects of the State's goals and policies are most important for local comprehensive planning.



See the Rhode Island Comprehensive Planning and Land Use Regulation Act, RIGL subsections 45-22.2-6(b)(1) and 45-22.2-9(d)(3).

FROM THE STATE GUIDE PLAN

ENERGY SECURITY

- **Adequacy:** Plan to meet overall energy supply needs.
- **Safety:** Increase the safety of energy conversion and use.
- **Reliability:** Increase the system's ability to withstand disturbances.
- **Resiliency:** Increase the system's ability to rebound from disturbances.

COST-EFFECTIVENESS

- **Affordability:** Lower overall energy bills.
- **Stability:** Reduce the impacts of energy price volatility on consumers.
- **Economic Growth:** Grow and maintain a healthy state economy.
- **Employment:** Increase employment.

SUSTAINABILITY

- **Climate:** Reduce greenhouse gas emissions from energy consumption.
- **Air Quality:** Reduce criteria pollution from energy consumption.
- **Water Use & Quality:** Reduce the water impacts of energy consumption.
- **Land & Habitat:** Reduce the impacts of energy projects on ecosystems.

Energy 2035: Rhode Island State Energy Plan, Goals, page 34

Adopt an energy policy that keeps Rhode Island competitive.

Rhode Island Rising: A Plan for People, Places and Prosperity, Goal 5, Policy 3, page 111

FROM THE RHODE ISLAND GENERAL LAWS

It is in the interest of the people, in order to protect public health and the environment and to promote the general welfare, to establish a renewable energy standard program to increase levels of electric energy supplied in the state from renewable resources.

Renewable Energy Standard, RIGL subsection 39-26-1(e)

[...] support and encourage development of distributed renewable energy generation systems; reduce environmental impacts; reduce carbon emissions that contribute to climate change by encouraging the local siting of renewable energy projects; diversify the state's energy generation sources; stimulate economic development; improve distribution system resilience and reliability; and reduce distribution system costs.

Distributed Generation Standard Contracts RIGL subsection 39-26.2-2



Also, see the Rhode Island Energy Resources Act, section 42-140-3; and Least Cost Procurement, section 39-1-27.7. For more information on Rhode Island's energy policies and laws, visit the Office of Energy Resources website at <http://www.energy.ri.gov/>.

OTHER RELEVANT DOCUMENTS

Before beginning assessment of existing conditions, needs and trends, and before developing new goals, policies and actions, communities should review other state and local plans and other documents that are relevant to planning for energy, including:

- Any local reports on energy use or energy audits; and
- The "Rhode Island Energy Plan," State Guide Plan Element 781, available at <http://www.planning.ri.gov/documents/781/781.pdf>.

STAKEHOLDERS TO INCLUDE

In addition to the general public, when discussing how best to plan for energy, municipalities may benefit from involving:

- The director of the local Department of Public Works;
- Local facilities and equipment managers;
- Local fleet managers;
- Representatives from the Rhode Island Office of Energy Resources; and
- Representatives from the local electric or gas utility, such as National Grid.

MAKING CONNECTIONS THROUGHOUT THE PLAN

Though there are several specific topics that are required to be addressed within a comprehensive plan, it is important that municipalities not consider the topic areas in as segregated elements, but rather as pieces of a larger system. Everything within a community is connected in diverse and varied ways, all of which should be considered when crafting a comprehensive plan. The information provided below is intended to highlight a few of the ways that municipalities should think about the connected nature of the topic areas.

RELATIONSHIP TO LAND USE

Future land uses should consider the availability of energy infrastructure. Development outside of existing electric or gas service areas will require an extension of infrastructure (e.g. electricity poles and wires or gas mains), the cost of which is passed on to the rate payers. Municipalities should capitalize on the efficiency and potential avoided costs that come with compact development in areas that are already served by energy infrastructure.

The mix of uses on the Future Land Use Map (FLUM) also has implications for energy usage. Having a range of uses in close proximity to each other may reduce the vehicle miles traveled by residents, employees and visitors, therefore reducing overall energy usage for transportation. Also, the future siting of renewable energy facilities should be considered when determining appropriate future land uses. If considered as part of the land use discussion, the municipality has the opportunity to ensure the compatibility of such facilities with surrounding land uses.

RELATIONSHIP TO ECONOMIC DEVELOPMENT

The development of renewable energy infrastructure can spur economic activity. Green businesses often look for locations where the municipality has shown a commitment to environmentally-friendly policies.

Additionally, businesses that are able to generate renewable energy on-site can save money on power. This savings can generate jobs, pay for better employee benefits or be put back into the community. Facilitating energy production activities can result in additional tax revenue, jobs and economic activity within a municipality.

RELATIONSHIP TO TRANSPORTATION

As discussed in Guidance Handbook #11 - Planning for Transportation, land use patterns have a significant impact on the amount of vehicle miles traveled within a community. Taking this one step further, the more vehicle miles traveled, the more energy is consumed by our transportation choices. Therefore, land use patterns also have a large impact on the amount of energy that is consumed by transportation. Planning for centers of growth, as described in Guidance Handbook #13, Recommendation 13A - Designating a Local Growth Center, will help to reduce vehicle miles traveled and energy consumption.

SECTION 2. FULFILLING THE STANDARDS

STANDARD 9.1

INCLUDE GOALS THAT EMBODY THE STATE'S GOALS FOR ENERGY AND POLICIES TO SUPPORT EACH GOAL

Energy 2035: Rhode Island State Energy Plan looks to a future in which energy services across all services electricity, thermal and transportation - are provided in a secure, cost-effective and sustainable energy system. The goals and policies of the State as laid out in Land Use 2025 call for the efficient use of energy, the availability of energy-efficient transportation options and the development of sustainable energy resources. Additionally, the Rhode Island General Laws state the importance of supporting and encouraging energy efficiency and renewable energy generation as a way to reduce environmental impacts, to diversify the state's energy sources, to stimulate economic development, to improve the energy system's resilience and reliability, and to reduce energy costs.

The comprehensive planning process provides communities the opportunity to consider the future of energy in their city or town and to craft goals that exemplify the desired future condition. Municipalities are encouraged to be energy innovators by implementing public energy conservation measures, creating municipal energy production facilities, and setting up policies and standards that encourage the use and production of renewable energy. To determine the goals that may be appropriate for your municipality, consider the following guiding questions:

- Is it important to the community that locally generated energy options be available for use by citizens, neighborhoods and businesses?
- What should be the future role of renewable energy in powering and heating the community, both in the public and private sectors?
- How can the communities land use decisions support energy conservation and efficiency?
- What benefits could the community realize by implementing greater energy efficiency and conservation measures?



For more information on the difference between goals, policies and implementation actions, see Guidance Handbook #1 - The Comprehensive Plan 101.



SAMPLE GOALS

- Municipal buildings, vehicles and equipment will conserve and efficiently use energy.
- The municipality will contain multiple renewable energy production facilities.
- The municipality will allow renewable energy production facilities in appropriate areas.



SAMPLE POLICIES

- Purchase only Energy Star certified equipment.
- Consider energy efficiency in all capital projects and purchases.
- Encourage the installation of on-site renewable energy production facilities for new developments.
- Encourage the installation of on-site renewable energy production facilities in industrial areas.

STANDARD 9.2 (RECOMMENDATION)

Include implementation actions within the Implementation Program that address:

- a. Conducting a baseline assessment of the amount of energy currently being used by municipal buildings, vehicles, and equipment or, if a baseline assessment has already been completed, conserving and efficiently using energy in public buildings, transportation, and equipment.
 - b. Adopting zoning policies and siting standards for renewable energy production facilities.
-

- a. Conducting a baseline assessment of the amount of energy currently being used by municipal buildings, vehicles, and equipment or, if a baseline assessment has already been completed, conserving and efficiently using energy in public buildings, transportation, and equipment.

The first step in implementing energy conservation measures is understanding the amount of energy currently being used by the municipality. To satisfy this standard, municipalities that have not yet conducted a energy assessment can include an implementation action to conduct one. Municipalities that have already assessed energy usage can include actions that would be the appropriate steps to conserve and efficiently use energy. To properly address energy conservation and efficiency, communities should consider the following guiding questions when developing implementation actions:

- Are there any no- or low-cost conservation measures that could be enacted to reduce energy consumption?
- What equipment or vehicles may be in need of upgrading in order to improve energy efficiency?
- What building improvements could be made to improve energy efficiency?
- How could savings resulting from energy efficiency and conservation measures be used elsewhere in the budget?
- Do current policies ensure that the most efficient and appropriate equipment is being purchased?



SAMPLE IMPLEMENTATION ACTIONS

- Replace end-of-life municipal-owned vehicles with high fuel efficiency and/or electric vehicles.
- Undertake a baseline assessment of the energy being used by municipal buildings, equipment and vehicles to determine where improvements can be made to conserve and efficiently use energy.
- Establish a program by which savings that result from energy efficiency and conservation measures are used to fund additional energy saving programs and upgrades.
- Create a municipal energy conservation and efficiency program and hire a staff member to oversee the program, using the savings generated by the program to fund their work.
- Develop and maintain an up-to-date energy management plan for attaining ongoing energy savings.

- Monitor monthly energy consumption and costs using a specialized tool such as EPA’s Portfolio Manager (www.energystar.gov/buildings/facility-owners-and-managers/existing-buildings/use-portfolio-manager).



As part of the Rhode Island Public Energy Partnership, the Office of Energy Resources (OER) has contracted with the University of Rhode Island Extension Outreach Center to complete energy baselines for all Rhode Island municipalities and public school districts. To find out whether an energy baseline has been completed for your community, please contact the Office of Energy Resources.

b. Adopting zoning policies and siting standards for renewable energy production facilities.

It is important that local zoning ordinances address renewable energy production facilities. To provide clarity to the development process, zoning ordinances must include identification of which types of renewable energy production facilities will be allowed within the municipality, whether it be within specific zoning districts, or for the municipality as a whole. Additionally, when appropriate, zoning ordinances may include siting standards for allowed renewable energy production facilities in order to dictate the placement and size of the facilities within a property.

The main renewable energy production facility types that municipalities are likely to encounter are solar and wind, and, to a lesser extent, hydropower and anaerobic digestion. Municipal ordinances should consider all of the various types of renewable energy production facilities, in which districts they may be appropriate and what dimensional constraints might be reasonable.

To develop appropriate zoning policies and siting standards, municipalities should undertake community discussion on the topic and assess what types of renewable energy are appropriate for which contexts. The goal of such discussions should be to determine an appropriate framework for the development of renewable energy production facilities that maximizes the benefits to the community and reduces potential impacts on neighbors.

When considering which actions may be appropriate for your municipality, consider the following guiding questions:

- What types of renewable energy production facilities have been developed in the municipality? In adjacent municipalities?
- What types of resources are available within the community from which renewable energy can be generated?
- What are the general lot sizes for the municipality’s zoning districts and what types of renewable energy production facilities may be appropriate for lots of that size?
- What siting standards should the municipality place on renewable energy production facilities to minimize impacts to surrounding properties?



SAMPLE IMPLEMENTATION ACTIONS

- Hold community discussions on the types of renewable energy production facilities that may be appropriate for the municipality.

- Assess which types of renewable energy production facilities may be appropriate for the municipality.
- Amend the zoning ordinance to allow specific renewable energy production facilities within appropriate zoning districts.
- Establish as-of-right or special use zoning for renewable energy production facilities in appropriate areas.
- Coordinate with the Rhode Island Office of Energy Resources to explore alternative energy solutions, including solar, wind and hydropower, and energy efficiency techniques for all municipal operations.

SECTION 3. CRAFT A BETTER PLAN

RECOMMENDATION 93

Include implementation actions within the Implementation Program that address:

DEVELOPING RENEWABLE ENERGY PRODUCTION FACILITIES ON MUNICIPALLY-OWNED LAND AND BUILDINGS.

One way in which the municipality can have a positive effect on energy availability, while supporting the development of sustainable energy resources, is through the development of renewable energy facilities on municipally-owned lands. Communities should consider what land might be available for developing renewable energy facilities and, if such facilities are desired, incorporating them into the Capital Improvement Program. When identifying potential lands and buildings that might be suitable for locating energy production facilities, a municipality should consider:

- Are there any publicly-owned parcels that are not currently being used to their full capacity?
- Are there any buildings on which rooftop renewable energy facilities may be appropriate?

If a municipality determines that there are municipally-owned lands and buildings that may be suitable as sites for renewable energy production facilities and that they would like to pursue such an initiative, implementation actions should be included in the comprehensive plan to make it happen. To determine what actions would be appropriate, a municipality should consider the following guiding questions:

- Who should the municipality work or partner with to develop such facilities?
- What should the process be for site selection?
- What type(s) of facilities are appropriate?
- How can the project(s) be funded?



There are several renewable energy programs currently available in Rhode Island that municipalities can participate in. Contact the [Rhode Island Office of Energy Resources](#) for current funding opportunities for public-sector renewable energy production projects.



SAMPLE IMPLEMENTATION ACTIONS

- Undertake a comprehensive assessment of municipally-owned properties to determine if any are suitable for the development of renewable energy facilities.
- Form a municipal advisory committee tasked with providing recommendations toward the development of renewable energy production facilities on municipal property.
- Coordinate with the Rhode Island Office of Energy Resources to take advantage of existing funding for alternative energy solutions, including solar, wind and hydropower, for all municipal operations.

RECOMMENDATION 9.4

Include implementation actions within the Implementation Program that address:

ENABLING THE DEVELOPMENT OF RENEWABLE ENERGY PRODUCTION FACILITIES BY THE PRIVATE SECTOR.

Municipal policies and regulations can have a direct effect on how easy or difficult it is for the private sector to develop renewable energy facilities. Municipalities should consider how to enable the development of renewable energy production facilities by the private sector. When determining appropriate methods for enabling renewable energy production, it may be beneficial for municipalities to look back at how existing municipal policies have previously shaped private energy production. The following guiding questions can assist in developing actions that enable the development of renewable energy production facilities:

- What incentives could the municipality offer to encourage the production of renewable energy?
- Could the process for permitting renewable energy production facilities be improved to expedite the development of such facilities?



SAMPLE IMPLEMENTATION ACTIONS

- Establish an expedited application and permit process for renewable energy facilities.
- Adopt performance standards for the use of renewable energy production facilities in private developments.
- Seek Property Assessed Clean Energy (PACE) designation the municipality.
- Adopt a program of exempting renewable energy systems from municipal property taxes, or from standards permitting fees.