

# Community Planning for Solar: Compiling a Community Solar Action Plan

Zara Dowling,<sup>1</sup> River Strong,<sup>1</sup> and Alison Bates<sup>2</sup>

1 UMass Clean Energy Extension 2 Colby College

NREL Technical Monitor: Sara Farrar

NREL is a national laboratory of the U.S. Department of Energy Office of Energy Efficiency & Renewable Energy Operated by the Alliance for Sustainable Energy, LLC

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Subcontract Report NREL/SR-7A40- 90091 June 2024



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This publication was part of a larger project. The full project can be found at https://ag.umass.edu/solarplanning.

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# Compiling a Community Solar Action Plan

Community Planning for Solar



**UMassAmherst** 

# Clean Energy Extension



Development of this guide was funded by the U.S. Department of Energy through the National Renewable Energy Laboratory's Solar Energy Innovation Network cohort program for Solar in Rural Communities, as part of a multi-stakeholder team project to develop a community-informed proactive solar siting and financing model.

The Community Planning for Solar project team included UMass Clean Energy Extension (CEE), the UMass Department of Environmental Conservation, Colby College Department of Environmental Studies, the Massachusetts Department of Energy Resources (DOER), the Massachusetts Department of Agricultural Resources (MDAR), the Pioneer Valley Planning Commission (PVPC), the Franklin Regional Council of Governments (FRCOG), the Western Massachusetts Community Choice Energy Task Force, UMassFive College Credit Union, Northeast Solar, PV Squared, Co-op Power, and the Massachusetts towns of Blandford, Wendell and Westhampton.

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The outline below summarizes the *Community Planning for Solar* steps and associated documents. For more information, please visit our website at ag.umass.edu/solarplanning.

# Community Planning for Solar: Toolkit Steps and Documents

#### 1. Gather your planning team and set goals



- a. Guide: Community Planning for Solar Toolkit Overview
- **b. Fact Sheet**: Forming a Collaborative Community Solar Planning Team

#### 2. Conduct a solar resource and infrastructure assessment



- a. Fact Sheet: The Electric Grid, Distributed Generation, and Grid Interconnection
- b. Guide: Conducting a Solar Resource and Infrastructure Assessment
- c. Template: Solar Resource and Infrastructure Summary
- d. Example: Solar Resource and Infrastructure Report

#### 3. Evaluate solar financing and ownership options



- $\textbf{a. Guide}: Understanding \ and \ Evaluating \ Solar \ Financing \ and \ Ownership \ Options$
- **b. Fact Sheet**: Solar Financing and Ownership Options
- c. Financial Tool: Solar Financing and Ownership Options: Cash Flow Model

#### 4. Assess community preferences regarding solar development and financing



- **a. Guide**: Defining Realistic Solar Development Options
- **b. Example**: Realistic Solar Development Options



- c. Fact Sheet: Assessing Community Preferences Regarding Solar Development
- d. Guide: Conducting Focus Groups for Solar Planning
- e. Guide: Conducting a Community Solar Survey
- f. Template: Community Solar Survey

#### 5. Develop a Community Solar Action Plan to guide solar decision-making and development



a. Guide: Compiling a Community Solar Action Plan

b. Example: Community Solar Action Plan

You Are Here

#### 6. Keep your Community Solar Action Plan current



a. Fact Sheet : Monitoring, Evaluating, and Updating Your Community Solar Action Plan



| TERM   | MEANING   |  |
|--|---|--|
| Photovoltaic (PV)                              | Photovoltaic (PV) systems are solar arrays composed of panels that generate electricity from sunlight. These panels are a different type of technology than the types of panels used in "solar hot water" or "solar thermal" systems.   |  |
| Capacity                                       | Capacity of a solar array is a description of the instantaneous power output of the panels at top production (i.e., in full sun). It is typically measured in kilowatts (kW) or megawatts (MW). A residential-size solar system is typically 5-10 kW in capacity. Large, ground-mounted solar arrays in Massachusetts are often 1 MW or greater in size.  |  |
| Annual Generation or Annual Energy Production  | The annual generation or annual energy production (AEP) of a solar array is a measure of the yearly electricity output produced by the panels. It is typically measured in kilowatt-hours (kWh) or megawatt-hours (MWh). In New England, annual generation is approximately equal to the array's capacity (in DC) *14% * 8,760 hours per year.  |  |
| Voltage  | Voltage of an electric power line can be thought of as the equivalent of pressure in a water line. The voltage of transmission and distribution power lines is typically measured in kilovolts (kV). One kilovolt is equivalent to 1000 volts (V). In residential use in the United States, electrical wires within a household carry electricity at 120 V.   |  |
| Three-Phase vs.<br>Single-Phase<br>Power Lines | Distribution lines are either three-phase lines or single-phase lines; the "phase" describes the distribution of power across them. Single-phase lines typically have one line that carries power and one neutral line. Three-phase lines have three wires which are all carrying power out of phase with each other, exactly 120 degrees apart; in some configurations, there is also a fourth neutral and line and ground. The practical implication is that three-phase lines provide a more consistent source of electricity and are better able to handle higher electricity loads. They typically are used to serve commercial and industrial buildings and can power large industrial electric motors. Single-phase lines are suitable for serving residential lighting and heating loads. Three-phase lines can also accommodate larger inputs of energy from distributed electricity generation facilities (such as solar arrays) than single-phase lines. |  |
| Abbreviations & Acronyms                       |   |  |
| AC   | AC is the abbreviation for <i>alternating current</i> , the type of electricity flowing into the grid from a solar array, after it has gone through an inverter.  |  |
| CEE  | UMass Clean Energy Extension  |  |
| DC   | DC is the abbreviation for <i>direct current</i> , the type of electricity produced by solar panels. The DC capacity of a solar array is a good indication of its size, and footprint on the landscape.   |  |
| DOER   | Massachusetts Department of Energy Resources  |  |
| kV   | kilo-volt, a standard unit of voltage   |  |
| kW   | kilowatt, a standard unit of solar PV capacity  |  |
| kWh  | kilowatt-hour, a standard unit of electricity production or consumption   |  |
| MDAR   | Massachusetts Department of Agricultural Resources  |  |
| MVP  | Municipal Vulnerability Preparedness plan, a municipal planning document  |  |
| MW   | megawatt, a standard unit of solar PV capacity, equal to 1000 kw  |  |
| MWh  | megawatt-hour, a standard unit of electricity production or consumption, equivalent to 1000 kwh   |  |
| NREL   | National Renewable Energy Laboratory  |  |
| OSRP   | Open Space and Recreation Plan, a municipal planning document   |  |
| SEIN   | Solar Energy Innovation Network, a program of the National Renewable Energy<br>Laboratory, funded by the U.S. Department of Energy's Solar Energy Technologies<br>Office  |  |
| sf   | square feet   |  |

# Clean Energy Extension



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#### Introduction

This document provides an annotated outline for a *Community Solar Action Plan*. This document is designed to assist community officials, volunteers, and regional planning agency staff in preparing a draft *Community Solar Action Plan* for a municipality, community, or other jurisdiction.

Preparing a *Community Solar Action Plan* is the fifth step in the *Community Planning for Solar* process (ag.umass.edu/solarplanning). The plan is intended to be the culmination of the planning process. The contents of the plan will include summaries of information gathered as part of foregoing steps in the process, including completion of a *Solar Resource and Infrastructure Assessment*, administering of a *Community Solar Survey*, interpretation of survey results, and review of *Solar Financing and Ownership Options* and tools.

Once the *Community Solar Action Plan* has been drafted, it should be reviewed by municipal board and commission members and presented at an open community forum. Any important comments or revisions can be incorporated before the final *Community Solar Action Plan* is approved and implemented.

The approved *Community Solar Action Plan* is a living document that guides community solar planning action over time. As conditions change, new information becomes available, or actions progress over the life of the plan, adjustments may be necessary to maintain the plan's relevance. The *Monitoring, Evaluating, and Updating Your Community Solar Action Plan* fact sheet (Step 6, Item a) describes some things to consider when updating the *Community Solar Action Plan* over time.

#### **Associated Documents**

For example *Community Solar Action Plans*, see <u>ag.umass.edu/solarplanning5</u>. These example plans may provide basic language for use in composing your community's plan.

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#### **Annotated Outline**

#### Front Matter

Title Page
Executive Summary
Terms, Abbreviations, and Acronyms used in the Plan
Table of Contents

#### 1. Introduction

- a. Purpose: Describe the purpose and goals of the plan. For example, the purpose might include guiding future solar development, municipal bylaw amendments, and solar permitting decisions within the community. It might also include planning for specific activities to develop solar on municipal properties, campaigns to promote solar on residential or commercial properties, or Requests for Proposals to encourage solar development on locations preferred by the community.
- b. **Planning Process Members:** List which municipal boards were involved in the planning process. If a *Solar Planning Team* was convened, describe how board members were chosen. List any consultants or outside advisors, such as a regional planning agency, who were involved in the process.
- c. **Planning Process:** Provide a brief description of the planning process, including opportunities for public input. For example, this might include noting that the plan followed UMass Clean Energy Extension's *Community Planning for Solar* process, or that it incorporated a *Solar Resource and Infrastructure Assessment*, community focus groups or forums, a *Community Solar Survey*, and review of financing options. Briefly note the timeline over which the planning process was completed.
- d. **Plan Outline:** Provide a brief description of the components of the plan, and outline how the plan is organized. For example, this might include different categories of solar development which are considered individually (e.g., residential, municipal, local business/institution, farm, large ground-mounted solar), as well as bylaw updates and a plan summary.
- e. **Planning Process Documents:** List where to find other documents used in the planning process (e.g., the *Solar Resource and Infrastructure Assessment*, the *Community Solar Survey*, a summary of results of the survey). These might be in an appendix to the plan, or located elsewhere on a municipal website.



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#### 2. Residential Solar

This section should address solar on residential properties, including solar on house rooftops or in residential yards.



- a. **Existing Capacity:** Summarize existing residential solar PV within the community, including the approximate number of residential systems and total capacity of these systems. You may wish to include what percentage of all households already have solar arrays. This information can be found in your municipality's *Solar Resource and Infrastructure Assessment*, developed as part of Step 2 in the planning process.
- b. **Potential Capacity:** Describe the potential solar resource on residential roofs (and/or residential properties) within the community. This information can be found in your municipality's *Solar Resource and Infrastructure Assessment*, developed as part of Step 2 in the planning process.
- c. **Survey Results:** Discuss the *Community Solar Survey* results regarding residential solar, including the level of support and interest for further solar development on residential properties. Describe any barriers to residential solar development identified in the survey.
- d. **Next Steps:** If *Community Solar Survey* results indicate there is strong interest or support in further solar development on residential properties, discuss pathways to promote residential solar development. Depending on the barriers identified, this might include holding public informational sessions about residential solar, conducting a community campaign to get more households signed up for residential solar, or identifying financial resources to help residents for whom the cost of solar development is a barrier.
- e. **Resources:** Provide links to resources regarding residential solar development which will be helpful in completing next steps.
- f. **Action Items:** Discuss which municipal board, committee, or group of residents will take the lead on carrying out next steps outlined in item "d". Note the intended timeline of expected actions and any specific goals of the next steps (e.g., *Hold two informational meetings for property owners regarding residential solar development within the next year.* or Get 25% of residential households signed up for solar installations by 2025.).

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#### 3. Municipal Solar

This section should address solar on municipal building rooftops, municipal parking lots, or municipal properties, including public schools located within the community or regional schools located elsewhere in the district which fall partly under the jurisdiction of the municipality.



- a. **Existing Capacity:** Summarize existing municipal solar PV within the community, including solar installed on municipal building roofs, parking lots, or land, solar installed on public school building roofs, school parking lots, or school properties, and any municipally-owned solar installed on private property. This might include the number and capacity (kW or MW) of existing solar projects. This information can be found in your municipality's *Solar Resource and Infrastructure Assessment*, developed as part of Step 2 in the planning process.
- b. **Potential Capacity:** Summarize the potential solar resource on municipal and public school building rooftops, parking lots, and properties. If the town has a former municipal landfill site, include a description of the size (acreage) and potential solar capacity on this site. This information can be found in your municipality's *Solar Resource and Infrastructure Assessment*, developed as part of Step 2 in the planning process.
- a. On-Site Evaluations: Summarize the results of any on-site evaluations of the potential for solar development on municipal and public school roofs and parking lots as conducted by solar installation companies. Include any on-site evaluations of former municipal landfill sites or other municipal properties suitable for ground-mounted installations.
- c. **Energy Storage:** Describe any priority sites for energy storage on properties owned by the municipality or public schools. If your community has a <u>Municipal Vulnerability</u>

  <u>Preparedness (MVP) Plan</u>, discuss how priority energy storage sites related to the plan, if relevant, and if they could provide back-up energy for a power outage or other emergency. This information may be found in your municipality's <u>Solar Resource and Infrastructure Assessment</u>, developed as part of Step 2 in the planning process.



- b. **Municipal Electricity Needs:** Estimate municipal and public school electricity use. For Massachusetts Green Communities, this information can be gathered from the Mass Energy Insight account or Green Communities Annual Report. Based on this value and on-site evaluations, determine which municipal properties would need to be developed for solar in order to meet municipal and public school needs. Compare this to the estimate of technical potential for all available municipal spaces, and estimate how much excess electricity would be produced if all available municipal spaces were developed. If relevant, consider the potential to sell excess electricity to community residents.
- c. **Survey Results:** Discuss the *Community Solar Survey* results, including the level of support and interest for further solar development on municipal properties. Describe any factors identified in the survey which influence resident support for municipal investment in development of solar on municipal properties.
- d. **Priority Sites and Next Steps:** If *Community Solar Survey* results indicate there is support for further solar development on municipal properties, discuss next steps to implement this development. Describe any barriers to development (e.g., roof support needs, roof warranties, interconnection challenges) and how they might be overcome. Rank priority sites for development based on community needs (e.g., back-up energy needs, electricity production) and feasibility (e.g., cost, roof replacement, roof warranties, etc.), and develop a timeline for development. Depending on the barriers and priority sites identified, next steps might include setting up on-site evaluations for priority sites which have not yet been assessed, communicating with engineers regarding roof supports, communicating with manufacturers regarding roof warranties, or issuing a Request for Proposals for development of a particular site. Inevitably, this step will include a financial assessment of different financing options for development on different properties.
- e. **Financial Assessment:** Summarize financial trade-offs associated with different financing and ownership options (e.g., local vs. third-party financing, town vs. community resident ownership) for priority solar development sites. Use the financing tools included as part of Step 3 of the *Community Planning for Solar* toolkit. Provide a summary of the results of these analyses.
- f. **Resources:** Provide links to resources regarding municipal solar development which will be helpful in completing next steps.
- g. **Action Items:** Discuss which municipal board, committee, or group of residents will take the lead on carrying out next steps outlined in item "d". Note the intended timeline of expected actions and any specific goals of the next steps (e.g., *Develop one solar project on a municipally-owned building or parking lot every other year through 2030.*).

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#### 4. Solar for Businesses and Institutions

This section should address solar on commercial and institutional buildings and parking lots. It could also include ground-mounted solar on properties owned by businesses or private institutions, but in this case, should be primarily focused on small, ground-mounted installations intended to serve on-site use. Large, ground-mounted solar developments on farms can be covered in Section 5; large, ground-mounted solar development on other types of private property should be covered in Section 6.



- a. **Existing Capacity:** Summarize existing solar PV on commercial and institutional building roofs and parking lots. This might include the number and capacity (kW or MW) of existing solar projects. This information can be found in your municipality's *Solar Resource and Infrastructure Assessment*, developed as part of Step 2 in the planning process.
- b. **Potential Capacity:** Summarize the potential solar resource on commercial and institutional building rooftops and parking lots. Provide a list of the size and location of specific large commercial and institutional rooftops and parking lots. This information can be found in your municipality's *Solar Resource and Infrastructure Assessment*, developed as part of Step 2 in the planning process.
- c. **Potential Sites:** Develop a list of businesses and institutions that could be approached regarding their interest in solar development, based on available space. Much of this information can be found in your municipality's *Solar Resource and Infrastructure Assessment*, developed as part of Step 2 in the planning process.
- d. **Survey Results:** Discuss the *Community Solar Survey* results regarding community support for solar development on commercial and institutional rooftops or parking lots. Depending on the questions included in the survey, this might include a discussion of community support for solar in general, support for development of large rooftops or parking lots, support for solar projects owned or financed by local businesses, or specific support for solar development on commercial and institutional rooftops or parking lots.



- e. **Next Steps:** If *Community Solar Survey* results indicate there is strong interest or support for further solar development on commercial and institutional properties, discuss pathways to promote this development. Depending on the size of the community, this might include holding informational sessions for local businesses and institutions, conducting a mail campaign to attract interest from local businesses and institutions, or contacting businesses or institutions directly to meet individually with decision-makers within the organization. It might also include identifying financial resources to help businesses and institutions for which the cost of solar development is a barrier.
- f. **Resources:** Provide links to resources regarding solar development which will be helpful in completing next steps.
- g. **Action Items:** Discuss which municipal board, committee, or group of residents will take the lead on carrying out next steps outlined in item "e". Note the intended timeline of expected actions and any specific goals of the next steps (e.g., Reach out to owners of 25 largest rooftops and 10 largest parking lots in town regarding solar development within the next year. or Get 25% of businesses and institutions signed up for rooftop solar installations by 2025.).

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#### 5. On-Farm Solar

This section should address solar on farms, including solar arrays on farm buildings and greenhouses, solar canopies designed to shelter parked farm vehicles, and ground-mounted solar development on land owned by farm businesses or actively farmed.

If there are few farms and little agricultural land located in your community, you could decide to include these resource types in other categories (e.g., including barn roofs with business/institutional roofs, including farmland with other undeveloped land). However, specific legal and logistical considerations often apply to agricultural lands and farms that might not apply to other properties, which may justify considering these sites separately. In addition, farmers may have different motivations than other business people, and community residents may have different aesthetic or other values associated with farms that they don't apply to other businesses or institutions.



- a. **Existing Capacity:** Summarize existing solar PV on farms and farmland (if any). This might include the number and capacity (kW or MW) of existing solar projects. This information can be found in your municipality's *Solar Resource and Infrastructure Assessment*, developed as part of Step 2 in the planning process.
- b. **Potential Solar Resource:** Summarize the potential solar resource on farm buildings and agricultural land. Provide a list of the size and location of specific large farm rooftops (e.g., barns) and, if applicable, farm parking lots, and summarize the potential capacity (MW) on these sites. The description of potential solar resources could also include areas (acreage) of actively farmed agricultural land, areas of prime farmland soils, and areas of marginal land

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listed under Chapter 61a. This information can be found in your municipality's *Solar Resource and Infrastructure Assessment*, developed as part of Step 2 in the planning process.

- c. **Potential Sites:** Compile a list of farms that could be approached regarding their interest in solar development. This information can be found in the *Solar Resource and Infrastructure Assessment*, developed as part of Step 2 in the planning process.
- d. **Survey Results:** Discuss the *Community Solar Survey* results regarding community support for solar development on large rooftops and on agricultural land. Include information about community preferences regarding the types of agricultural lands developed and how they are developed (e.g., small or medium-sized vs. large projects, traditional ground-mounted vs. dual-use, pollinator-friendly, roadside vs. hidden from view).
- e. **Next Steps:** If *Community Solar Survey* results indicate there is strong interest or support in further solar development on farm building roofs or farmland, discuss pathways to promote this development. Depending on the scale of agriculture occurring in your community, this might include holding informational sessions for local farms, conducting a mail campaign to attract interest from local farms, or contacting farms directly to meet individually with farm owners, farm operators, or owners of farmland. It might also include identifying financial resources to help farms for which the cost of solar development is a barrier.
- f. **Resources:** Provide links to resources regarding solar development on farms which will be helpful in completing next steps.
- g. **Action Items:** Discuss which municipal board, committee, or group of residents will take the lead on carrying out next steps outlined in item "e". Note the intended timeline of expected actions and any specific goals of the next steps (e.g., Reach out to owners of 10 largest barns in town regarding solar development within the next year. or Hold one informational session for local farms regarding options for solar development on buildings or agricultural land.).

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#### 6. Large, Ground-Mounted Solar on Private Land

This section should address large, ground-mounted solar developments on private land, including solar projects sited on previously disturbed sites (e.g., gravel pits, quarries, rights-of-way, private landfills, brownfields) and those sited on undeveloped land (e.g., forest, meadow, shrubland). If agricultural lands are not addressed in a stand-alone section ("On-Farm Solar," Section 5), they can be included here.



- a. **Existing Capacity:** Summarize existing large, ground-mounted arrays on private land (if any). This might include the number, capacity (MW), and location of existing large, ground-mounted solar projects. This information can be found in your municipality's *Solar Resource* and *Infrastructure Assessment*, developed as part of Step 2 in the planning process.
- b. **Survey Results:** Discuss the *Community Solar Survey* results regarding community support for large, ground-mounted solar development. Include information about community preferences regarding the total scale of ground-mounted solar development in the community, and preferences for development on previously disturbed or undeveloped land. Describe community preferences regarding the types of undeveloped land preferred for development or conservation. Discuss if survey results point towards adopting a proactive approach for large, ground-mounted solar development on private land (i.e., actively working with landowners to solicit proposals for preferred sites) or a defensive approach (i.e., using bylaws to try to guide development to preferred areas, but waiting for a third party to approach the town with a permitting request).
- c. **Potential Solar Resource:** Based on survey results regarding community preferences for large, ground-mounted development on different types of land, provide updated estimates of solar resources on private land categorized by land type (e.g., former landfills, brownfields, gravel pits, mature forest, shrubland, etc.). Provide estimates of the number of properties, area (acreage), and capacity (MW), as appropriate. Indicate how the availability of properties was determined (e.g., size of property, slope, conservation status, etc.).



- d. **Maps:** Include a series of maps relevant to defining potential solar resources for large, ground-mounted solar development on private land. These might include the following:
  - Map of preferred lands for conservation and already protected land.
  - Map of areas ineligible for solar development under state law.
  - Map of areas ineligible for solar incentives under current state regulations.
  - Map of land cover types relevant to community preferences.
  - Maps of preferred areas for development based on community preferences.
- e. **Grid Infrastructure:** Discuss preferred areas for development relative to current grid infrastructure that is, what is the project timeline for when large projects would be likely to be able to go forward? Discuss where grid infrastructure might be improved to allow development in preferred areas.
- f. **Financial Assessment:** If community residents express interest in a local or "flip" model of ownership for large, ground-mounted solar arrays, estimate the financial resources necessary to finance projects of various sizes (e.g., 1-10 MW), and establish whether this is a viable option for the municipal government, a group of community residents, or a local business. Use the financing tools included as part of Step 3 of the *Community Planning for Solar* toolkit. Summarize financial and other trade-offs associated with different financing and ownership options.
- g. **Potential Sites:** If appropriate, develop a list of community-preferred sites for large, ground-mounted solar development where landowners are interested in leasing land for solar development.
- h. **Next Steps:** If *Community Solar Survey* results indicate there is strong interest or support for large, ground-mounted solar development on private land, discuss pathways to promote this development. This might include approaching owners of land that matches community preferences for development, reaching out to the local utility regarding solar development on rights-of-way and opportunities for grid infrastructure upgrades, or working with an interested landowner to issue a Request for Proposals for development of a parcel in a way that offers community benefits.
- i. **Resources:** Provide links to resources regarding large, ground-mounted solar development on private land which will be helpful in completing next steps.
- j. **Action Items:** Discuss which municipal board, committee, or group of residents will take the lead on carrying out next steps outlined in item "h". Note the intended timeline of expected actions and any specific goals of the next steps (e.g., *Develop updated bylaw for consideration at next Annual Town Meeting.* or *Work with private landowners to issue RFP for development of a 1-5 MW large, ground-mounted solar project at one brownfield site in town.*).

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#### 7. Other Solar Development Categories

Depending on the preferences, land types, and context applicable to your community, you may identify another type of solar development not included above, or may wish to separate out into a different category some of the types of development described collectively above. For example, if your community has a large number of state-owned buildings or properties, you may wish to discuss these resources separately, and provide a separate discussion of approaches, next steps, and action items. This section is intended to provide an outline of generic components you may wish to include for any category of solar development or solar resources not listed above.



- a. **Existing Capacity:** Summarize existing solar PV capacity in this category, including, as appropriate, the approximate number of solar arrays, the total capacity, and area taken up by these solar projects. This information can be found in your municipality's *Solar Resource* and *Infrastructure Assessment*, developed as part of Step 2 in the planning process.
- b. **Potential Capacity:** Describe the potential solar resource within this category, including, as appropriate, the number of potential sites, the technical potential for solar development (capacity in MW), and the area (acreage). This information can be found in your municipality's *Solar Resource and Infrastructure Assessment*, developed as part of Step 2 in the planning process.
- c. **Survey Results:** Discuss the *Community Solar Survey* results, including the level of support and interest for this type of development. Describe any barriers identified in the survey. Describe any identified community preferences regarding how or where projects in this category are developed, or under what financial arrangements.
- d. **Financing Options:** Assess financing and ownership options, using the tools provided as part of Step 3 of the planning process, if applicable.
- e. **Next Steps:** If *Community Solar Survey* results indicate there is strong interest or support in further solar development within this category, discuss pathways to promote this type of development. Discuss any barriers to development identified and how they may be overcome. Depending on the category, next steps might include outreach campaigns, individual outreach to owners of resources in this category, evaluation of financing options, or collaborative work on a Request for Proposals for development.
- f. **Resources:** Provide links to appropriate resources.

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g. **Action Items:** Discuss which municipal board, committee, or group of residents will take the lead on carrying out next steps outlined in item "e". Note the intended timeline of expected actions and any specific goals of the next steps.

#### 8. Municipal Bylaws and Zoning

- a. **Survey Results and Next Steps:** Discuss how zoning bylaws or city ordinances might be updated to better reflect community preferences for solar development on different resource types (e.g., residential, municipal, business/institutional, farms, large ground-mounted projects). Be sure to discuss any legal constraints on the extent to which local bylaws can regulate solar development in your community.
- b. **Resources:** Provide links to appropriate resources to aid in bylaw updates.
- c. **Action Items:** Discuss which municipal board will take the lead on carrying out next steps to draft the updates discussed in item "a," and who will review them before they are added to a warrant article. Note the intended timeline of expected actions and any specific goals of the next steps (e.g., *Draft updated bylaw for review by Select Board 45 days before Town Meeting. Finalize proposed updates in time for consideration at next Annual Town Meeting.*).

#### 9. Summary

- a. **Summary:** Summarize overall take-aways from the *Community Planning for Solar* process.
- b. **Plan Review:** Discuss the preferred timeline for when the plan will be next reviewed and revised (Step 6), and which steps of the *Community Planning for Solar* process are anticipated to be repeated at that time. For guidance in determining an appropriate timeline and revision steps, see *Monitoring, Evaluating, and Updating your Community Solar Action Plan* (Step 6, item a).
- c. **Action Items:** Provide a table of Action Items, summarizing briefly each item, indicating which municipal board, committee, or group of residents is responsible for taking the lead on next steps, and indicating the projected timeline (calendar dates). Be sure to include the anticipated timeline for action plan review and revision.