

Community Solar Resources for Public Power

Last Updated: August 2017



About the Community Solar for the Southeast project

The Community Solar for the Southeast project aims to make solar more affordable and accessible through shared solar projects developed by cooperatives and municipal utilities across the southeast. The project aims to lead stakeholder process with rural public power utilities to determine solutions needed to increase development of community solar project. The team will provide technical assistance to analyze, design, and implement community solar projects.

The project is led by the North Carolina Clean Energy Technology Center with partners including Rocky Mountain Institute, Fayetteville Public Works Commission, NC Justice Center, National Rural Electric Cooperative Association, Roanoke Electric, Strata Solar, EcoPlexus, Geenex, and GreenLink. The project is funded by the Department of Energy SunShot program under Solar Energy Evolution and Diffusion Studies-2-State Energy Strategies (SEED2-SES).

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About the North Carolina Clean Energy Technology Center

The NC Clean Energy Technology Center is a UNC System-chartered Public Service Center administered by the College of Engineering at North Carolina State University. Its mission is to advance a sustainable energy economy by educating, demonstrating and providing support for clean energy technologies, practices, and policies. The Center provides service to the businesses and citizens of North Carolina and beyond relating to the development and adoption of clean energy technologies. Through its programs and activities, the Center envisions and seeks to promote the development and use clean energy in ways that stimulate a sustainable economy while reducing dependence on foreign sources of energy and mitigating the environmental impacts of fossil fuel use.

Acknowledgements

This material is based upon work supported by the U.S. Department of Energy's Office of Energy Efficiency and Renewable Energy (EERE) under the Award Number DE-EE0007670.

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Introduction

This document provides a review and categorization of the existing resources and literature on community solar. Many of the resources here do not deal specifically with community solar for co-ops and municipal utilities, but still offer valuable information that can be applied in these contexts.

Resources that are especially comprehensive and useful are identified as key resources and summarized in the first section; a list of other resource compilations is also provided. The second section contains a review of more specialized resources and categorization of those resources into topic areas.

1. Key Resources

These resources are comprehensive reviews of important topics, steps, and issues for community solar programs. They address many (if not all) of the major topics listed in the following section. These resources may be listed again in the following section if they are particularly valuable in a specific topic area.

- [National Rural Electric Cooperative Association \(NRECA\) Community Solar Playbook](#) - This resource is focused on helping co-ops develop business models and implementation plans for community solar projects. It contains five modules, each focused on one aspect of management; these include Executive Management, Governance, and Regulatory; Marketing, Member-Consumer Services, and Communications; Information Technology; Business, Finance, and Program Administration; and Project Management Planning & PV System Engineering, Commissioning, and Operations.
- [Smart Electric Power Alliance \(SEPA\) Utility Community Solar Handbook](#) - This resource approaches community solar from a utility perspective. It discusses reasons why utilities are adopting community solar projects, and provides a list of steps for utilities that are considering community solar projects to undertake. It also includes descriptions of existing utility community solar projects.
- [SEPA Community Solar Program Design Models](#) - This resource is a guide for developing a community solar project with a focus on the various design choices that must be made and how different design models operate. It also includes statistics from existing projects and some market research survey results.
- [U.S. Department of Energy: A Guide to Community Shared Solar: Utility, Private, and Nonprofit Project Development](#) - This resource discusses different community solar ownership models. It also discusses state policies supporting community solar, incentives, and securities requirements, and provides useful sample budget and checklist documents.

Resource Compilations

Several other organizations have created resource compilations that may include useful additional resources to the ones identified here.

- [U.S. Department of Energy Solar Resource Center](#)
- [U.S. Department of Energy Solar Market Pathways Toolkit](#)
- [Community Solar Value Project Library](#)

2. Resources by Topic

Value proposition of community solar for public power (Benefits/Motivations)

These resources focus on the motivations for public power providers to adopt community solar projects.

- [SELC - Community Solar - Best Practices for Electric Cooperative & Municipal Utilities in the South](#)
- [RMI- Financing Community Scale Solar](#)
- [RMI Blog - Why Rural Electric Cooperatives are Opting for Community-Scale Solar \(Blog, not literature\)](#)
- [SEPA - Utility Community Solar Handbook](#)

Low income

These resources focus on how community solar projects can appeal to and benefit low-income customers.

- [SELC - Solar For All: What Utilities Can Do Right Now to Bring Solar Within Reach for Everyday Folks](#)
- [IREC - Shared Renewable Energy for Low- to Moderate-Income Consumers](#)
(link is for free download)
- [CSEA Solar + Storage for Low to Moderate income Communities.](#)
- [Community Solar Decision Matrix](#)

Program Design Guidance

These resources discuss how to arrange the basic structure of a community solar program and the factors important in deciding on such a design.

- [SEPA - Community Solar Program Design Models](#)
- [SEPA - Utility Community Solar Handbook](#)
- [NRECA Guide](#)
- [Community Solar Decision Matrix](#)
- [IREC - Five Guiding Principles for Shared Renewable Energy Programs](#)
- [Pricing Models of Interest for Utility-Driven Community Solar Programs](#)

Marketing & Communications

These resources provide information on engaging with potential and current customers for community solar projects.

- [SEPA - Utility Community Solar Handbook](#)

- [NRECA Guide](#)

Market Research (Customer survey, focus groups, etc.)

These resources either provide market research on potential or current community solar customer populations or provide techniques and strategies on how to undertake market research for community solar.

- [SEPA Community Solar Survey](#)
- [SEPA - Utility Community Solar Handbook](#)
- [SEPA - Accelerating Adoption of Community Solar](#)
- [Utility Drive- 2017 State of the Electric Utility Survey](#)

Financing

Resources in this section discuss financing options for community solar projects.

- [CSVP- Community Solar Program Development Landscape](#)
- [3 Cool Ways to Finance Community Solar Projects](#) (SunShot/EERE)

Modeling

These resources discuss financial models relevant to community solar project planning.

- SEA model
- SAM model
- [NRECA SUNDA](#)

Tax & Securities Issues

These resources discuss how tax and securities laws and regulations apply to community solar projects and provide strategies for compliance with relevant requirements.

- [Utility Solar Tax Manual \(SEIA\)](#)
- [A Guide to Community Shared Solar \(SunShot\)](#)
- [NREL - Shared Solar: Current Landscape, Market Potential, and Impact of Federal Securities Regulation](#)

Incentives

Resources in this section can be used to identify financial incentives, such as grants, loans, or tax credits available for community solar projects.

- [Database of State Incentives for Renewables and Efficiency \(DSIRE\)](#)
- [A Guide to Community Shared Solar \(SunShot\)](#)

Case Studies

These resources discuss real-life examples of community solar projects and the lessons learned from those examples.

- [SEPA - Utility Community Solar Handbook](#)
- [SEPA - Community Solar Program Design Models](#)
- [Community Solar Utility Programs \(Community Solar Value Project\)](#) (link is to library)
- [CSVP- Community-Solar Utility Programs](#)

Companion Technologies

Resources in this category discuss how other energy technologies can complement community solar projects

- [CESA - Solar + Storage for Low- and Moderate-Income Communities](#)

Southeast-Specific Resources

Resources in this category are specifically focused on the Southeast and

- [TVA - Guidelines for Distributed Solar Solutions](#)

Collaborative Procurement

These resources discuss the use of bulk purchasing in community solar projects

- [RMI](#)
- <http://solarmarketpathways.org/wp-content/uploads/2016/12/CVEC-Case-Study.pdf>
- [NCEMC](#)
- [WRI- Best Practice Guide for Collaborative Solar Procurement](#)