

Sharing the Sun: Data Collection Methodology for 2023 Project Data Release

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Preface

The July 2023 release of the Sharing the Sun Community Solar Project Data from the National Renewable Energy Laboratory (NREL) includes completed community solar projects across the United States that were interconnected through December 2022, as well as completed and pending projects with provisions for low-income (LI) or low- and moderate-income (LMI) subscribers as of the first half of 2023 (2023 H1). The July 2023 release is available from NREL's Data Catalog at <https://data.nrel.gov/submissions/220>

Sharing the Sun is an initiative of the National Community Solar Partnership (NCSP), a program led by the U.S. Department of Energy Solar Energy Technologies Office. NREL first released a data set of community solar projects in 2018 and updates it annually (at minimum). The University of Minnesota contributes to this effort.

1 Sharing the Sun: Community Solar Project Compilation Methodology

The list of community solar projects in the Sharing the Sun database is drawn from multiple data sources. This document summarizes the eight primary types of data sources and describes their contributions to the database. All these sources have project-level data.

1.1 Utility Data and Filings

The database includes data from utility filings and utility websites. Table 1 lists the main sources in this category.

Table 1. Primary Utility Filings Included in the Sharing the Sun Database

| State | Utility/Program | Source |
|-----------|---|--|
| Colorado | Xcel Energy | RES compliance report (docket 16A-0139E) |
| Maryland | Delmarva Power & Light | Website: Community Solar Pilot Program Applications |
| | Baltimore Gas & Electric | Website: Pilot Program Application List |
| | Potomac Edison Company | First Energy Website: Pilot Program Queue and Capacity Chart |
| | Potomac Electric Power Company | Website: Community Solar Pilot Application Queue |
| Minnesota | Xcel Energy | Solar*Rewards Community (docket 13-867) |
| Oregon | Portland General Electric, Pacific Power, and Idaho Power | Oregon Community Solar Program |

1.2 State Energy Offices or Public Utility Commissions

The Sharing the Sun data set also includes publicly available data from state energy offices and public utility commissions (PUCs). Table 2 lists the main data sources included in this category.

Table 2. Primary Data Sources From State Energy Offices and Public Utility Commissions Included in the Sharing the Sun Database

| State | Entity | Source |
|---------------|--|---|
| Illinois | Illinois Power Agency | Adjustable Block Program: Project Application Reports |
| Massachusetts | Department of Energy Resources | SMART Solar Tariff Generation Units |
| New Jersey | Board of Public Utilities | Solar Activity Reports: Installation Data |
| New York | New York State Energy Research and Development Authority (NYSERDA) | Solar Electric Programs Reported by NYSERDA |

1.3 Third-Party Project Developer Websites and Marketplace Platforms

Projects are also retrieved from developer websites with project data. Table 3 provides examples of websites with publicly available data that are included in the database.

Table 3. Examples of Third-Party Developer Websites With Project-Level Data

| Developer Websites and Marketplaces |
|--|
| EnergySage's marketplace |
| Rhode Island Community Solar Marketplace |
| PowerMarket |
| Solar United Neighbors |

1.4 Third-Party Project Developer Data Provided Under NDA

The Sharing the Sun database also includes data provided by developers under nondisclosure agreements (NDAs). Table 4 lists the developers from which we have received data under this category.

Table 4. Examples of Third-Party Developer Data Provided Under NDA

| N ° | Developer | N ° | Developer |
|-----|----------------------------|-----|-------------------|
| 1 | Arcadia | 7 | Grid Alternatives |
| 2 | Borrego | 8 | Nautilus |
| 3 | Cooperative Energy Futures | 9 | NextEra |
| 4 | CVE North America | 10 | Pivot |
| 5 | Cypress | 11 | PowerMarket |
| 6 | Summit Ridge Energy (SRE) | | |

1.5 Databases Shared With Us

Table 5 lists stakeholders who have shared data with us via email. Project-level data has been included in the database.

Table 5. Examples of Databases Shared With Us

| N ° | Stakeholder |
|-----|-------------------------------|
| 1 | Florida Power & Light Company |

1.6 Media and Press Releases

Community solar project data can also be found in the media. This category includes all material developed for the public, including material published on utility and developer websites.

1.7 Survey Data Collection

NREL collects data from community solar developers on key features of their community projects, including the resultant benefits to subscribers. The list of developers is compiled from community solar developers registered in NCSP's online community and those who participated in previous data collection efforts.

The data collection template was shared as an online form created using Microsoft Forms and as a CSV workbook to allow for greater flexibility for developers to respond. The developers were given two weeks to respond, after which NREL followed up with non-responders and responders who indicated that they would prefer to provide information via a phone call. After five weeks of data collection, the data were internally validated for consistency, organized, and added to the database.

Additionally, NREL asked developers who participated in the 2022 NCSP Sunny Awards for permission to use their project-level data under anonymity. We supplemented this primary data with other secondary data obtained from developers.

1.8 Other

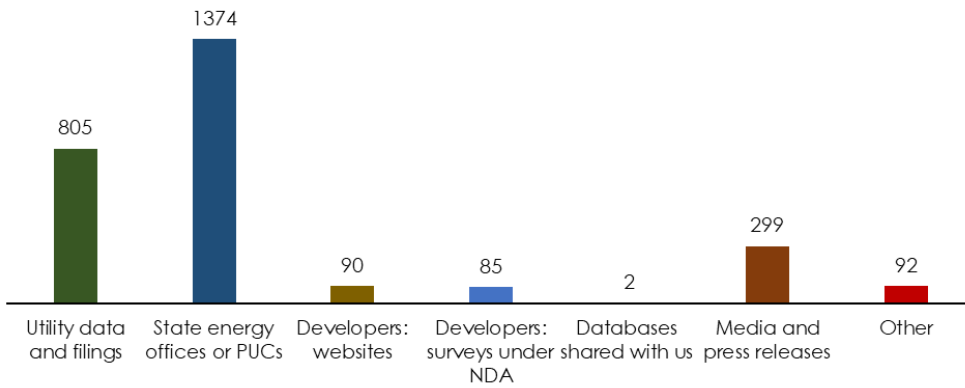
This category includes projects that do not fall into any of the previous groups.

2 Distribution of Project by Data Source

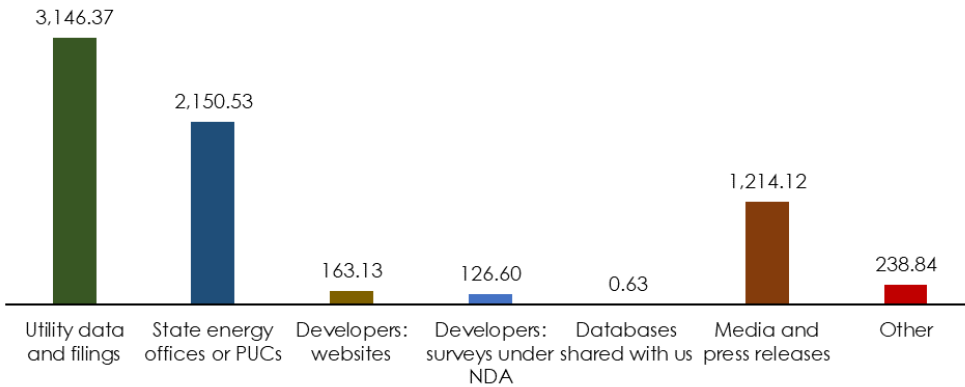
The following figures illustrate the number of projects and capacity by data source, the number of data sources per project, and the distribution of data sources by state. These figures do not include results for primary data collection.

2.1 Number of Projects and Capacity by Data Source

Number of projects by data source



Installed capacity by data source [MW-AC]

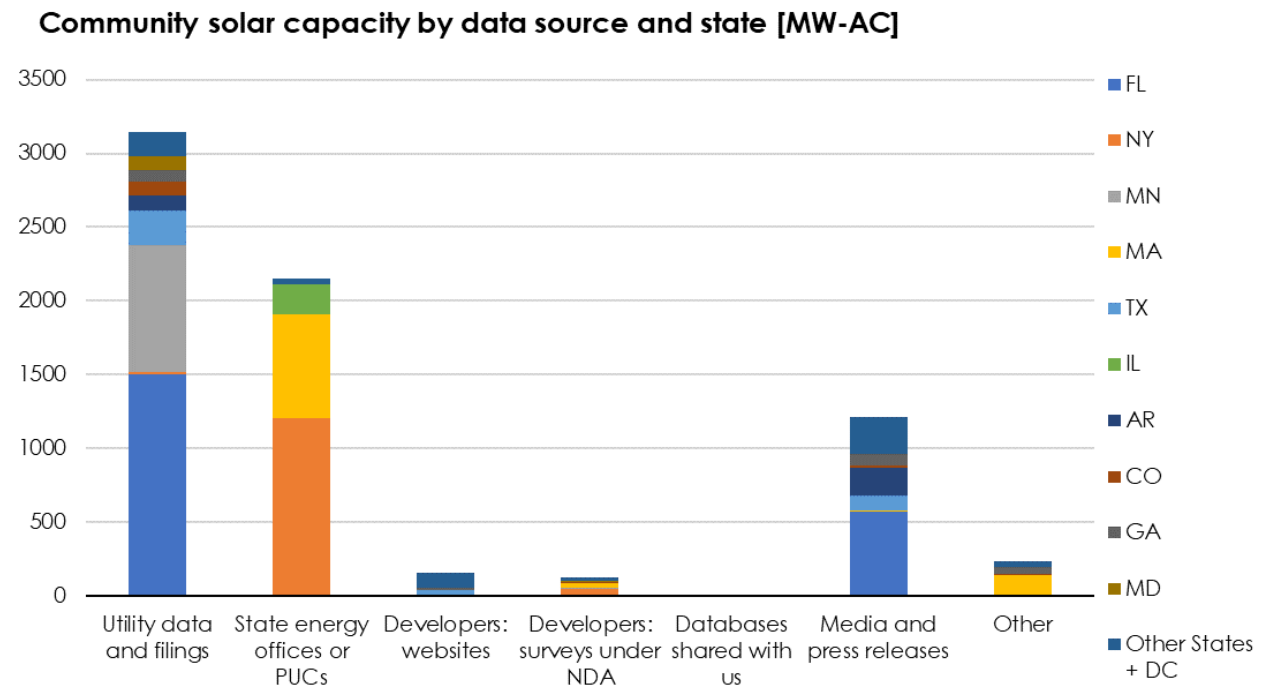
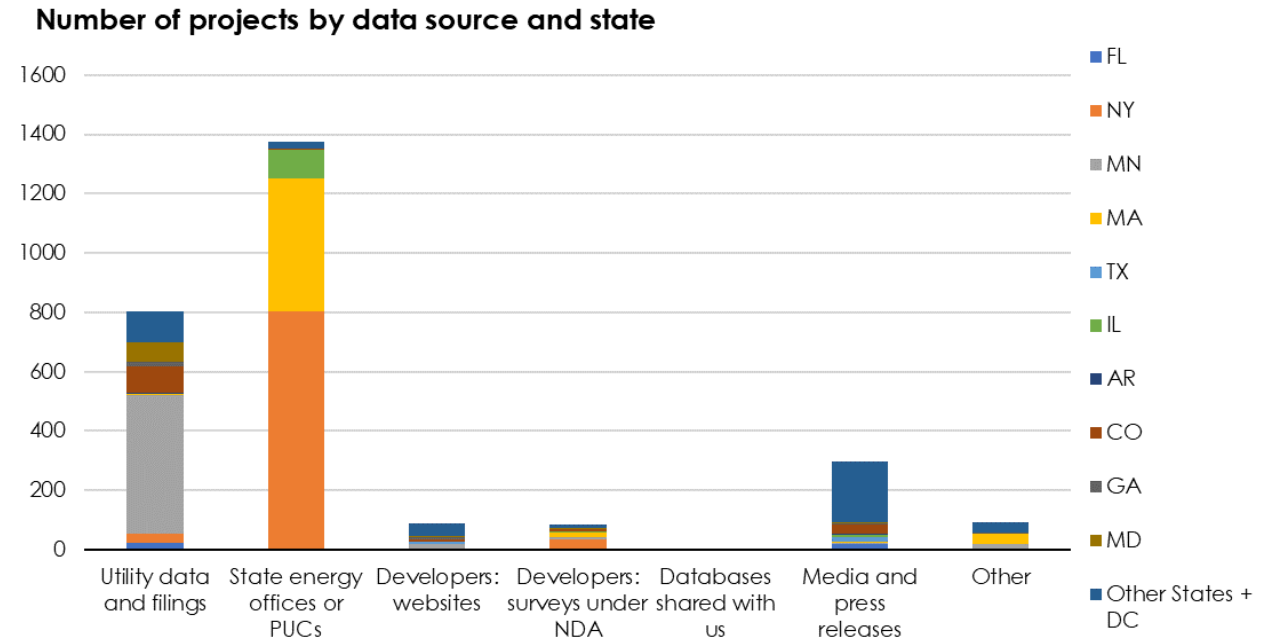


2.2 Number of Data Sources per Project

Number of projects according to number of sources



2.3 Distribution of Data Sources by State



3 LI and LMI Community Solar Project Compilation Methodology

The list of low-income (LI) and low- and moderate-income (LMI) community solar projects in the Sharing the Sun database is drawn from multiple data sources.

In this update, we include both complete and pending LI/LMI community solar projects. Complete LI/LMI community solar projects are energized projects, and pending projects are awarded or under construction. Projects that are wait-listed, under review, or withdrawn are not considered to be pending.

This document summarizes the data sources and describes their contributions to the database. For complete projects, all listed sources have project-level data. For pending projects, some sources are listed in the aggregated data, which represents the total pending capacity for the programs.

3.1 Complete Projects

The database includes data from utility filings, utility websites, state energy offices, and public utility commissions. Table 16 lists the main sources that are part of this category.

Table 6. Complete Projects Included in the Sharing the Sun Database

| State | Utility/Program Stakeholder | Data Till | Source |
|----------------------|---|------------|---|
| California | Department of Community Services & Development | July 2023 | Community Solar Pilot Program |
| Colorado | Xcel Energy | Dec. 2022 | RES compliance report (docket 16A-0139E) |
| Connecticut | Department of Energy & Environmental Protection | Feb. 2023 | Shared Clean Energy Facility Pilot Program |
| District of Columbia | Department of Energy & Environment | Dec. 2020 | DC Solar for All |
| Florida | Florida Power & Light Company | Feb. 2023 | Shared via email |
| Illinois | Illinois Power Agency | April 2023 | Illinois Solar for All |
| Massachusetts | Department of Energy Resources | July 2023 | SMART Solar Tariff Generation Units |
| Maryland | Delmarva Power & Light | July 2023 | Website: Community Solar Pilot Program Applications |
| | Baltimore Gas & Electric | July 2023 | Website: Pilot Program Application List |

| | | | |
|------------|--|-----------|--|
| | Potomac Edison Company | July 2023 | First Energy Website: Pilot Program Queue and Capacity Chart |
| | Potomac Electric Power Company | July 2023 | Website: Community Solar Pilot Application Queue |
| New Jersey | Board of Public Utilities | July 2023 | Solar Activity Reports: Installation Data |
| New York | New York State Energy Research and Development Authority (NYSERDA) | July 2023 | Solar Program (NY-Sun) |
| Oregon | Portland General Electric, Pacific Power, and Idaho Power | July 2023 | Oregon Community Solar Program |

3.2 Pending Projects

The LI/LMI community solar data set also includes projects that are currently pending. Table 27 lists the main data sources included in this category.

Table 7. Pending Projects Included in the Sharing the Sun Database

| State | Utility/Program | Data Till | Source |
|---------------|---|------------|--|
| Connecticut | Department of Energy & Environmental Protection | Feb. 2023 | Shared Clean Energy Facility Pilot Program |
| Florida | Florida Power & Light Company | Feb. 2023 | Shared via email |
| Illinois | Illinois Power Agency | April 2023 | Illinois Solar for All |
| Massachusetts | Department of Energy Resources | July 2023 | SMART Solar Tariff Generation Units |
| Maryland | Delmarva Power & Light | July 2023 | Website: Community Solar Pilot Program Applications |
| | Baltimore Gas & Electric | July 2023 | Website: Pilot Program Application List |
| | Potomac Edison Company | July 2023 | First Energy Website: Pilot Program Queue and Capacity Chart |
| | Potomac Electric Power Company | July 2023 | Website: Community Solar Pilot Application Queue |
| New Jersey | Board of Public Utilities | July 2023 | Solar Activity Reports: Installation Data |
| Oregon | Portland General Electric, Pacific Power, and Idaho Power | July 2023 | Oregon Community Solar Program |

