REWI Renewable Energy Wildlife Institute

SolSource Database

A Community Resource

The SolSource Database is a community resource of solar-biodiversity data enabling its users to find and share data collected at solar facilities.

The SolSource Database establishes a platform to grow public understanding, address regulatory concerns, and inform permitting practices around critical solar-biodiversity questions by:

- Providing a one-stop-shop for **data contribution and acquisition**
- **Standardizing and sharing** new data, protocols, and standards as they emerge.
- **Compiling data** to address questions relevant to solar-biodiversity stakeholders.
- **Ensuring confidentiality** and protecting sensitive information while providing proper credit for work, funding, and site access.

THE NEED FOR DATA-SHARING IN SOLAR DEVELOPMENT

Solar energy will play a critical role in decarbonizing the United States' electrical grid, with the growth in installed capacity of large-scale photovoltaic solar energy expected to continue increasing in the coming decades. **A clear understanding of the risks and benefits of solar energy to natural resources is needed to ensure the process of siting and permitting solar energy projects minimizes impacts/maximizes benefits.**

Collaboration and data-sharing will rapidly increase understanding of solar-natural resources challenges and opportunities. Rather than starting the environmental review of each new solar project from a place of complete uncertainty, information from numerous solar projects across regions can be pooled for review and synthesis.

A NEW DATA-SHARING INFRASTRUCTURE

REWI was awarded funding through the U.S. Department of Energy (DOE) Solar Energy Technologies Office (SETO) to design and construct the SolSource Database (DE-EE0010381) — a data-sharing infrastructure that will adapt to the emerging needs of solar energy and natural resource stakeholders.

The SolSource Database will be a community resource of solar-related information that can support project siting of industry and reviewed by public agencies.

The SolSource Database will provide value to:

- **State regulatory agencies** that want, need, or have data on solar-biodiversity issues, or have questions that may be answered by data within the database.
- **Utility-scale solar owners, operators, and developers** that have data and want to contribute to databases that may answer questions relevant to them at scales which they could not accomplish alone.
- **Academics** managing and/or using solar-biodiversity study data to address broad-scale questions.
- **Consultants** with data needs for site risk assessments and environmental due diligence.
- Other stakeholders interested in policy-relevant species' interactions with solar energy.

PROJECT COMPONENTS

Assess Available Information
Identified solar and natural resource research questions and their associated data collection efforts through outreach to REWI's network of collaborators and a literature review of 300+ manuscripts and 90+ current and ongoing projects.

Create Data Standards and Templates
Created templates for relevant datatypes for contributors to share data with SolSource Database. Future use of the datasets will be governed by data-sharing agreements.

Develop a Prototype
A beta-version of SolSource Database is available for stakeholders to test and provide feedback on functionality.

Finalize
The final database will incorporate stakeholder feedback into a full-featured web-based user interface that will allow users to browse available databases, access agreements and templates, and view summary tables and data graphics.

Disseminate
REWI will demonstrate the utility of the SolSource Database through outreach including webinars, user trainings, conferences, and other events.

INTERESTED IN LEARNING MORE?

More information on the SolSource Database will be made available throughout the project, REWI appreciates the support and enagement of the broader community around this important resource.

For more information or to get involved in the project, contact REWI Senior Scientist - Solar Josh Ennen, Ph.D. (jennen@rewi.org) or REWI Senior Information Science Manager Ryan Butryn (rbutryn@rewi.org)

ABOUT THE SOLAR ENERGY TECHNOLOGIES OFFICE

The U.S. Department of Energy (DOE) Solar Energy Technologies Office (SETO) supports early-stage research and development to improve the affordability, reliability, and domestic benefit of solar technologies on the grid. Learn more at energy.gov/solar-office.