Memorandum of Understanding

Background of Organizations

The mission of the Couillard Solar Foundation (CSF) is “help Wisconsin nonprofits get solar for their organizations.” They provide grants to make solar installations affordable and enable participation in the renewable energy revolution for their nonprofit partners. Since 2017, CSF has already helped over 100 nonprofit organizations, including churches, schools, libraries, and various service programs catering to the basic needs of Wisconsin citizens.

Website: https://couillardsolarfoundation.org/

Data Science for Sustainable Development (DSSD) is a nonprofit committed to supporting the operations of resource-strained mission-driven organizations working in the development, social justice, and humanitarian spheres. DSSD seeks to empower organizations through the provision of technical services, consultation, and training.

Website: https://dssdglobal.org/

Scope of Work

Contact

Couillard Solar Foundation primary contact:

- **Jackie Harrison-Jewell, director@couillardsolarfoundation.org**

DSSD primary contact:

- Joshua Panganiban, jbpanganiban@dssdglobal.org

Background

CSF has identified two data science needs:

(1) Interactive dashboard of aggregate renewable energy tracking

CSF has recently installed 8 separate solar projects. Each installed solar array is installed with different panels and inverter which then contains a different software used to collect data that is generated on the array and system. The process to gather this information is a manual login on 8 different websites. CSF sees an opportunity to improve its operation.

(2) Interactive map

Located on CSF's project page is a lengthy list of 200+ installed renewable projects located throughout Wisconsin. CSF is interested in visualizing these projects into an interactive map in order to improve visibility and interest around CSF's impact.

DSSD will be working on both projects in parallel.

<u>Interactive Dashboard</u>

Scope of Data Science for Sustainable Development

DSSD will work with CSF to understand the purpose of CSF's energy dashboard. DSSD will work with CSF to aim to understand what insights or information CSF wants to convey to its users.

DSSD will identify appropriate data visualization tools based on CSF's requirements and data types and consider factors such as ease of use, interactivity, and compatibility with CSF's data sources.

DSSD will create a data uploading system that would enable users to upload information into a centralized database that the visualization would use to provide users a centralized site to view generation of different arrays.

DSSD will also explore an automation system to download the data based on the limitations of the dashboard that contains the solar data. DSSD will select the most suitable visualization types with the guidance and feedback of CSF.

DSSD will design the interface with feedback from CSF.

DSSD will facilitate initial testing of the interactive dashboard and will collaborate with CSF in order to prepare for development.

DSSD will finalize the development of the dashboard and monitor for any issues that occur.

Scope of the Couillard Solar Foundation

CSF will be responsible for the initial gathering and preparation of the data and point DSSD to the data sources for its 8 separate solar installations. CSF will collaborate with DSSD to ensure data quality and resolve any inconsistencies or missing values. CSF will provide any guidance to DSSD if any initial data or if future data needs to be cleaned or preprocessed the data to make it suitable for visualization. This may involve data transformation, normalization, or aggregation.

CSF will provide information regarding its IT infrastructure in order for DSSD to fully understand any limitations on the selected platform and issues that need to be addressed.

CSF will be responsible for providing existing data to be included in the interactive map including coordinates, logos, or other content or metadata generated by CSF's projects.

Finally, DSSD is granted permission to advertise the project with a pre-approved logo and description of the project upon CSF's approval.

CSF will commit to regular meetings with the DSSD team monthly and will check in via email more regularly.

Interactive Map

Scope of Data Science for Sustainable Development

DSSD will assist CSF in defining the purpose and requirements of the interactive map and highlight features that could be included. DSSD will decide on a mapping platform that provides the functionality and accessibility that CSF requires.

DSSD will handle the design of the interface with feedback from CSF.

DSSD will deploy the map on CSF's website and include different base layers. Which include:

1. Location of projects
2. Satellite view
3. Openstreet map view

Additional layers can be explored given feedback from CSF.

DSSD will handle initial testing of the map and will collaborate with CSF in order to prepare for development.

DSSD will finalize the development of the map and monitor for any issues that are occurring.

Scope of CSF

CSF will provide information regarding their IT infrastructure in order for DSSD to fully understand any limitations on their selected platform and issues that need to be addressed.

CSF will be responsible for providing existing data to be included in the interactive map including coordinates, logos, or other content or metadata generated by CSF's project.

Finally, DSSD is granted permission to advertise the project with a pre-approved logo and description of the project upon CSF's approval.

CSF will commit to regular meetings with the DSSD team monthly and will check in via email more regularly.

Timeline and Key Milestones (for both Interactive Map and Interactive Dashboard)

	Task	**Start by**	**End by**
1	Kickoff Call with CSF	Mid-Sept	
2	Begin Product Development	Mid-Sept	Late-Oct
3	Initial Demo	Late-Oct	
4	Documentation + Testing	Mid-Nov	Late-Nov
5	Initial Launch of MVP	Late-Nov	Early-Dec
6	Continual Testing and Adding Features	Late-January	Late-March
7	Delivery of Final Products	Early-April	
8	Support Period	April	Early-May

Capacity, Technology, and Systems

Any additional costs to complete the Scope of Work will be communicated to CSF before acquisition and must be approved accordingly.

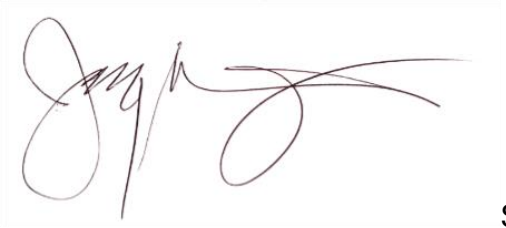
Structure

Meetings will be held **monthly** for discussion of deliverables and during the development of the platform and infrastructure for staff review and Q/A session. More frequent check-ins will occur via email.

Agreement

The signing of this Memorandum intends that the signatories of both organizations shall strive to reach, to the best of their abilities, the goals and objectives stated in this Scope of Work.

The Agreement shall be signed by the Couillard Solar Foundation and Data Science for Sustainable Development and shall be effective as of **August 24, 2023**.



Signed 8/24/23

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Jackie Harrison-Jewell, Executive Director, Couillard Solar Foundation

Signed 08/25/2023

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Joshua Panganiban, Director, Business Development, Data Science for Sustainable Development