

NREL Support for IRENA-CEM Global Solar and Wind Atlas



April 24, 2012 Doug Arent, Director, Joint Institute for Strategic Energy Analysis

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

NREL Role in Supporting the Global Solar and Wind Atlas

- Teaming with IRENA, DLR, Paris Mines Tech, CENER, DTU, and CEM MSWWG members on atlas development with co-funding from U.S. Department of Energy
- 1. Design and hosting of Atlas portal on OpenEI platform
 - Builds on functionality and complementary data sets and services of the Open Energy Information portal – <u>www.openei.org</u> and the SWERA site
 - Linkage with data catalog developed by Paris Mines Tech and loading of initial data sets
 - Provision of NREL and SWERA resource data for countries around the world and other related data sets
- 2. Co-Development of geospatial data interface with DLR
- 3. Improving resource data through downscaling approaches
- 4. Developing complementary analysis tools in partnership with the Clean Energy Solutions Center

Atlas Portal

Draft design for the portal entry point for the Global Wind and Solar Atlas. We are working with the IRENA team to develop content for this portal page.

Features:

- Launch the Geospatial Interface
- Browse the Data
 Catalog



and Wind Energy

Global Atlas for Solar

How Can You Participate?

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Contributing Partners







Atlas Goals and Features

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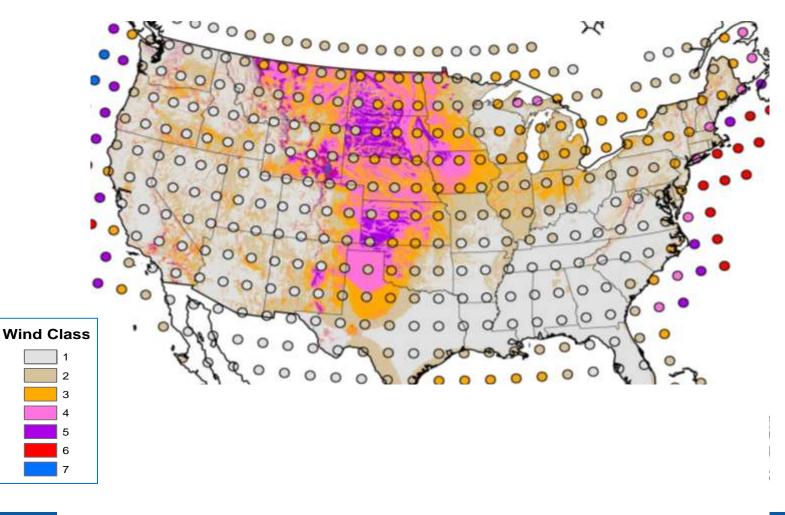


Atlas Geospatial Services

- Ensuring that the framework can support the loading and exploration of existing map services, including:
 - Development of the mapping components which support the display and interaction with web based spatial data services
 - Implementation of the legend viewing component
 - Integration of existing data including the services from NREL, OpenStreet Map, and Google
- Assisting with development of the functional requirements and the system architecture document
- Linking with broader Open Carto tools and capabilities

Improving Global Data Sets

• Working with Risoe,NCAR et al to improve downscaling methods for application to global onshore wind data.



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