



Overview of SSE and POWER Data at the ASDC

The SSE Project - The Release 6.0 Surface meteorology and Solar Energy ([SSE](https://eosweb.larc.nasa.gov/project/sse/sse_table)) data set contains parameters formulated for assessing and designing renewable energy systems. The SSE data set is formulated from NASA satellite- and reanalysis-derived **insolation** and **meteorological data** for the 22-year period July 1983 through June 2005 for 1° latitude by 1° longitude grid cells over the globe (https://eosweb.larc.nasa.gov/project/sse/sse_table).

The POWER Project - Processing, archiving, and distributing **solar insolation** and meteorological parameters for: [SSE-RENEWABLE ENERGY](http://power.larc.nasa.gov/): Satellite and modeled derived data supporting Renewable Energy Technologies (RET's); [SUSTAINABLE BUILDINGS](http://power.larc.nasa.gov/): Satellite and modeled derived data for the preliminary design of buildings and associated renewable-energy power systems; and [AGROCLIMATOLOGY](http://power.larc.nasa.gov/): Satellite and modeled derived solar and meteorological data supporting agrotechnology. The **POWER** web site has the **SSE** data, plus more recent **daily radiation** and **meteorological data** from **1983 through near real time** (< 10 days ago for radiation; < 5 days ago for temperature, etc.). <http://power.larc.nasa.gov/>

Data Products – SSE data products include parameters for: insolation, diffuse radiation, direct normal radiation, downward radiative flux, solar geometry, and radiation on tilted surfaces, parameters for energy storage systems, meteorology, top-of-atmosphere insolation, and surface albedo. **POWER** data products include the **SSE** data and **near-real time data** needed for Sustainable Buildings and Agroclimatology, such as: daily global radiation and meteorology, inter-annual variability, and building climate parameters, as well as special global datasets and high resolution (½° by ½°) datasets.

Documentation – We recommend reading the **Surface meteorology and Solar Energy (SSE) Release 6.0 Methodology** and **Parameter Definitions** documents:

<https://eosweb.larc.nasa.gov/sse/documents/SSE6Methodology.pdf>

<https://eosweb.larc.nasa.gov/cgi-bin/sse/sse.cgi?skip@larc.nasa.gov+s08#s08>

Dataset Organization – The datasets and parameters are organized by the type of technology or program that requires the data. For example, solar panels require certain data inputs and agrotechnology requires others.

Data Ordering Tools – No special ordering tools are necessary to obtain the data. Simply go to the **SSE** (https://eosweb.larc.nasa.gov/project/sse/sse_table) or **POWER** (<http://power.larc.nasa.gov/>) websites, select the type of information desired, input the decimal latitude and longitude values for your location or area of interest, select the specific parameters of interest, and click on submit.

Data Read and Display Tools – My NASA Data is an easy-to-use interface that displays selected SSE datasets, with several options to output the data. Go to the website and use the Live Access Server – Advanced:

<http://mynasadata.larc.nasa.gov/las/getUI.do>.

We hope this information is useful for you. If you have any questions, please contact us at support-asdc@earthdata.nasa.gov.

NASA Langley ASDC User Support

Preserving, managing, and sharing atmospheric data for the common good

