Hourly Meteorological Data File Upload to Designer

Version History

- Version 1.0 (Feb 2019) – Initial release

Introduction

In addition to the predefined weather stations meteorological data, Designer now allows users to upload a CSV file containing hourly values of meteorological data. The data in the file will be used instead of the weather station data for the project. A file upload is helpful for cases when the user wants to use a different data source, closer proximity data, or to compare energy predictions to other tools.

This document provides guidelines for the meteorological data file requirements and formats. The uploaded file should contain hourly values of:

- Global Horizontal Irradiation (GHI)
- Diffuse Horizontal Irradiation (DHI)
- Ambient temperatures

Supported Formats

Designer supports the following file formats:

- TMY3 data set format as specified in https://www.nrel.gov/docs/fy08osti/43156.pdf
- PVsyst standard format for hourly meteo data (i.e. the files that PVSyst store when saving simulation results and when exporting meteo data)
- Create your own file adhering to the guidelines below:

  1. The data can be uploaded as CSV files only.

  2. The file must contain a header row with the following 3 labels:

     - "GHI"
     - "DHI"
     - "T Amb"

  3. The header row should be followed by 8760[1] consecutive rows with numeric values in every column. For example:
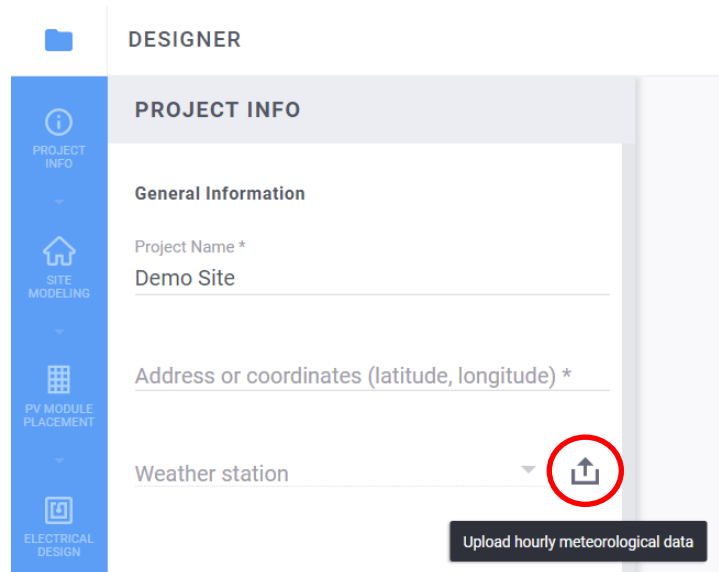
Optional column →

	A	B	C	D
1	date	GHI	DHI	T Amb
2	01/01/1990 00:00	0	0	22.56
3	01/01/1990 01:00	0	0	21.88
4	01/01/1990 02:00	0	0	21.52
5	01/01/1990 03:00	0	0	21.16
6	01/01/1990 04:00	0	0	20.9
7	01/01/1990 05:00	1.3958	1.3958	20.87
8	01/01/1990 06:00	135.2	59.504	21.91
9	01/01/1990 07:00	313.51	81.697	23.19
10	01/01/1990 08:00	509.89	143.8	24.61
11	01/01/1990 09:00	759.41	146.7	26.25
12	01/01/1990 10:00	843.51	342.3	27.56
13	01/01/1990 11:00	574.51	444.3	27.85
14	01/01/1990 12:00	773.7	459.7	28.46
15	01/01/1990 13:00	637.6	485.8	28.68
16	01/01/1990 14:00	712.5	440.8	28.96
17	01/01/1990 15:00	625.11	380.9	29.06
18	01/01/1990 16:00	439.7	324.5	28.78
19	01/01/1990 17:00	291.9	237.4	28.14
20	01/01/1990 18:00	160.39	113.4	27.48
21	01/01/1990 19:00	32.192	32.101	26.59
22	01/01/1990 20:00	0	0	25.29
23	01/01/1990 21:00	0	0	23.98

---

[1] One value per hour for one year (24 $hours \cdot 365\ days\ per\ year\ =\ 8760$)

![solaredge logo]

How to Upload a File

1. In the project info page, click the upload icon next to the Weather station field:

2. Choose the data file and click **Open**

   a. If the file upload was successful, the weather station field will state "Custom":

   b. If the upload failed, an error message will appear. Make sure:

      i. All values below the header row are numeric

      ii. There are no empty rows in the file

      iii. The file contains at least 8760 rows