VISUALISING DAILY SOLAR SUPPLY

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SMART CITIES

Data and networks are being integrated into urban environments to increase citizen engagement.

Solar PV Systems can report the daily solar power supply, which can be presented in real-time as a visualisation.

This creates an opportunity to engage in energy literacy as well as planning for future solar projects.

The information in this visualisation is a part of a connected smart city.

VIRTUAL REALITY

Visualisation layers include geographic maps, climate information such as cloud cover and solar radiation, building and power plant locations, and installed solar supply capacity per postcode.

Maps of solar supply show daily power supply, historic data and future predictions. Data is visualised within its locality.

3D imagery can be used to show city areas as well as using procedural geometry to show supply data. Clouds and other climate effects can be added as layers.

Space for Image
(final visualisation project, screenshot/interface)

SOLAR SUPPLY

Current daily solar supply is shown for each region. Search for the location that you want to show supply data over or browse over the whole map. Data is updated to the current day, or show aggregation of previous recorded data on solar supply.

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(display of map)

Online data sources include solar PV systems that report the current data on solar power supply. As more systems are connected to the grid, the amount and quality of data will increase within the visualisation.

DAILY SOLAR MAPS & STATS

Weather forecast models and direct observation at weather stations are used to determine the total intensity of solar radiation provided by the sun.

Installed capacity changes rapidly and can be determined from free data sources.

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(display of weather effects)

Daily solar data provided by the Australian PV Institute and anonymised and aggregated by postcode.

References