

One of the interesting things about solar research is that it covers a wide range of disciplines. In *Modelling the Uptake of Energy Efficient Technologies in the Residential Sector*[3], the authors cover topics such as power grid engineering, location geography, and how policy affects the uptake of solar power output. This research aims at reducing planning costs in solar projects. 3D visualisations are used for modeling and demonstration purposes.

A more specific example can be found in Causal loop modelling of residential solar and battery adoption dynamics: A case study of Queensland, Australia[1]. This is a local study and by looking at how they used the tools available, we can identify gaps as well as evaluate the value of other visualisation tools. The study recommends an energy policy to achieve long term goals as well as technical optimisations in pv-panels and batteries.

A planning system for solar projects is described in GIS-based decision support for solar energy planning in urban environments[4]. The system uses an energy model and GIS planning software using a relational database. Discusses impact on an urban scale.

Another important tool for planning solar projects appears to be Townscope II—A computer system to support solar access decision-making[5]. Uses spherical projections to assess sites for solar potential and sky view. Also develops a “computer system”[5] to support decision making. 3D urban “information system”[5] with a set of solar tools.

Since there is so much software for different aspects of solar project planning, there is even a State-of-the-art review of solar design tools and methods for assessing daylighting and solar potential for building-integrated photovoltaics[2]. This looks like an important article. The review is a large overview, looking at over 200 software products, factors of solar design and pv-systems. Looking at integration into CAD and BIM software as an integrated design process.

Finally, to assess the state of the art, Design and development of distributed solar PV systems: Do the current tools work?[6] There are currently a range of tools and it is interesting to see how they fit into the current design process and what needs to be improved. As well as covering different solar design tools, this should be a good reference for project workflow. Importantly, it explains factors and aspects that go into PV project decisions.

Bibliography

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