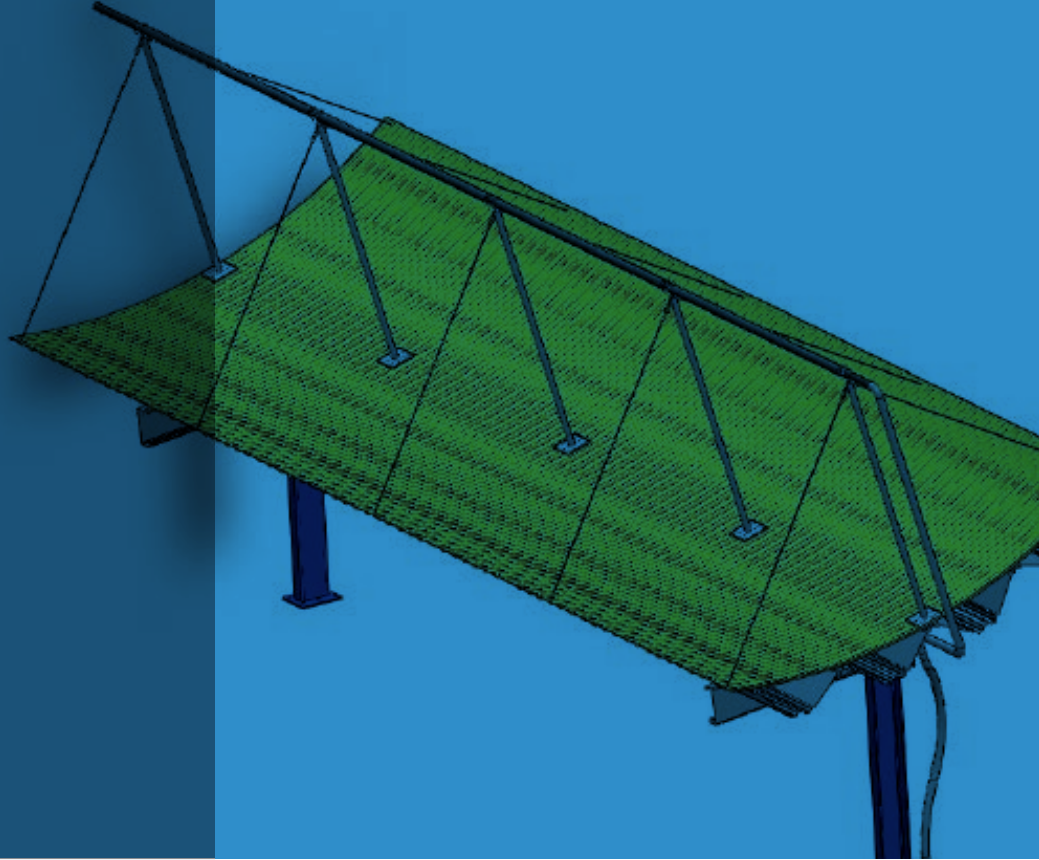




## PROJECT SHEET

# Solar Energy



Carnot has significant experience, extending back over 35 years in its team members, in the technology and economics of solar energy power plant. The team has carried out detailed design against performance and cost specifications, assessment of project viability and testing of prototype plant and equipment. Some recent projects include:

### SOLAR CONCENTRATOR DESIGN

The client engaged Carnot to analyse and assess the performance of a low cost parabolic trough concentrator system used to drive an ORC power plant. The team then developed prototype designs for the mechanical and thermal systems, including the heat transfer oil circuit, receiver configuration and tracking mechanisms.

### ASSESSMENT OF SOLAR ENERGY R&D PROJECTS

Carnot was engaged to provide external party assessment of solar energy related R&D projects in one of Australia's major universities. This involved attending regular presentations to help assess initial project viability and then project performance and outcomes.

### PROJECT FEASIBILITY STUDIES

The team has carried out numerous feasibility studies on the possible use of solar power plants in various locations in Australia. The studies involved assessment of local conditions, technology applicability and availability along with project timing and costs. The studies included identifying and benchmarking technologies in terms of commercially viability.

### SOLAR POWER PLANT - COMMERCIALISATION

Carnot supported a company during the development phase of a 150MWe concentrating photovoltaic power plant. Our role was to redesign a significant subsystem (the power generation module) based upon a working prototype to make it viable for commercial manufacture. This involved reducing the cost and weight by 50% while taking into account all aspects of manufacture, operation and maintenance.

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