



Consulting · Engineering · Implementation

SOLAR TECHNOLOGIES



www.itpowergroup.com



SOLAR TECHNOLOGIES

SOLAR EXPERTISE

ITP has an exceptional range of current, state-of-the-art expertise in the area of solar energy. We have been developing our capabilities and expertise for more than 30 years in the Solar Sector. Our past projects span from solar pumping system designs in remote locations to solar road maps.

The company provides multi-discipline solar engineering and design services to public and private entities such as governments, manufacturers, architects and utilities.

ITP has a multi-disciplinary and international team of experts including engineers, economists, rural development experts and environmental engineers, offering a broad pool of experience related to solar energy technologies.

SOLAR TECHNOLOGIES

ITP's expertise embraces the following technologies:

- ✓ Photovoltaic (crystalline and thin film)
- ✓ Solar Thermal (flat plate and evacuated tube collectors)
- ✓ Concentrated Solar Power (CSP)
- ✓ Concentrated Photovoltaics (CPV)

DELIVERING SOLUTIONS FROM INCEPTION TO COMPLETION

ITP provides unique and independent tailored consultancy services to suit our client's needs. We deliver effective solutions, from concept stages up to completion of the solar development.

SOLAR SERVICES

Due Diligence

The International Finance Corporation needed due diligence for the Moser Baer 5MW Photovoltaic Power Plant. ITP conducted a full technical and

financial due diligence of the grid connected solar system located in South East India. We undertook a financial assessment of the project which included factors such as the economics of the loan arrangements, the power purchase agreements, and the internal rate of return of the project. The technical due diligence included site visit and evaluation, environmental impact assessment, analysis of the estimated generation, and assessment of proposed equipment.

Feasibility Study

ITP was contracted by a Commercial Investor to prepare a pre-feasibility study assessing the technical and economic viability of different options for a PV and Concentrated Solar Power (CSP) to be installed in the North African desert. The assessment covered all major concentrating solar thermal technologies, including hybrid plants and opportunities for thermal storage. Concentrating PV (CPV) and conventional fixed PV systems were also analysed. The technical pre-feasibility study included a review of the solar resources. The levelised cost of energy of the different solar plant options was evaluated, taking into consideration capital and operation and maintenance costs.

Design Engineering

An international Clothing retailer as part of their Low Carbon Policy requested the design and installation of a 20kW Photovoltaic System on their roof. We provided services including sizing and installation of the photovoltaic modules, electrical equipment and cables. We also conducted health & safety and risk assessments, commissioning the PV arrays and the provision of documentation to the client.

Solar Energy Roadmap

The Australian Business Council for Sustainable Energy made an application to the Commonwealth Government Innovation Programme to prepare a specific roadmap to guide the development of the Australian solar photovoltaics industry. ITP provided services central for the program. The PV Roadmap provided a strategic plan to guide the development of the domestic and export solar PV industry, with the objective of ensuring Australian technology ownership and implementing a sound commercialisation strategy that would yield significant benefits at modest cost.

SOLAR CAPABILITIES

Our consulting services include:

- ✓ Project management
- ✓ Owner's engineer
- ✓ Market assessment
- ✓ Resource assessment
- ✓ Feasibility studies
- ✓ Regulatory framework studies
- ✓ Due diligence
- ✓ Performance and energy analysis
- ✓ Building capacity / training

Our engineering solutions include:

- ✓ R & D
- ✓ Technical specification
- ✓ Technical design
- ✓ Modelling and simulation
- ✓ Mechanical engineering
- ✓ Electrical engineering
- ✓ System design
- ✓ Installation assistance

**ITP - RELIABLE ADVICE
FOR RENEWABLE
ENERGY INVESTMENTS**

If you are looking for a reliable partner to support the development of your solar energy project or technology, then please contact:

solar@itpowergroup.com or +44 (0) 117 214 0510

Excellence in sustainable energy and climate change consulting