

Oman - Application of Renewable Energy through Costs-From-Savings

Client: Public Authority of Water (PAW), Oman

Location: Oman

Date: 2018-19

The Public Authority for Water (PAW) formerly known as Public Authority of Electricity & Water (PAEW) is a governmental institution and the regulator for the water sector in Oman.

PAW is also a direct water service provider, responsible for supplying potable water to homes and businesses except Sohar City and the Dhofar Governorate. It operates around 1800 assets including reverse osmosis plants, pumping stations, booster pumping stations, wells/well fields as well as tanker filling stations and buildings throughout the country.

The energy costs for the operation of these assets represent a huge annual operational expenditure and is likely to increase as water demand is increasing country wide. Furthermore, the electricity bills are expected to increase significantly particularly during the summer peak load duration on account of the Cost Reflective Tariff (CRT) regulation issued by the Authority for Electricity Regulation (AER) in Jan 2017 and revised thereafter every year which are imposed on PAW's assets consuming more than 150 MWh/year.

PAW was interested in investigating the application of Renewable Energy (RE) through cost-from-savings by replacing high CRT and diesel costs in its energy intensive assets.

Our Role:

Based on the terms of reference, along with ITP India and SIE Oman we were responsible for:

- **Review of international experiences on RE applications and costs-from savings**
- **Prioritisation of sites, site visits to 18 PAW assets and selection of 10 sites for feasibility studies**
- **Detailed technical and financial feasibility studies for 10 selected sites which included grid and off-grid solar PV grid plants.**
- **Development of implementation plan, bidding documents and evaluation criteria**
- **Organisation of knowledge transfer sessions in India and workshop in Muscat, Oman**
- **Recommendations to PAW based on final workshop outcomes The assignment delivered ten (10) reports and documents.**

Outcome:

- **10 detailed feasibility studies (PV and Wind) for selected sites, including site visits**
- **Preparation of Minimum Functional Specifications report and tender documentation and bid evaluation criteria and guidelines**
- **Best Practices Report**
- **PAW Staff Capacity Building**

