



TECHNICAL VISIT PROGRAMME

**KURAYMAT SOLAR THERMAL POWER PLANT 140 MW
15 DECEMBER 2009**

The visit is organized by NREA



NREA - Egypt
New & Renewable Energy
Authority

To participate to the free visit:

Kindly register at Registration desk (if you have not yet registered while signing up for the conference)

Technical visit - departure from Cairo information:

Meeting point: Mena House Hotel Entrance

Meeting time: 8:30 am

Leaving time: 9:00 am

Technical visit - departure from Kuraymat information:

Meeting point: indicated at site

Leaving time: 12:30 pm

Technical visit programme:

9:00 - 10:30 Moving from Mena House Hotel - Cairo & Arrival to Kuraymat Site

10:30 - 11:00 Coffee Break

11:00 - 12:30 Site Visit

12:30 - 13:30 Back to Cairo

Thank you for participating.

Attached: Site details and technical info



KURAYMAT SITE TECHNICAL INFO

LOCATION AND TECHNICAL PLANT BACKGROUND INFO

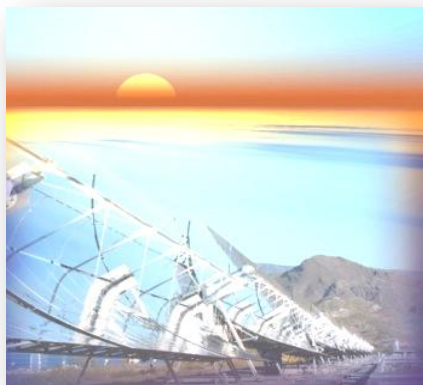
Location: Kuraymat is located nearly 90 km South of Cairo

Plant Capacity: 140 MW

Design: Combined Cycle Island

A typical Combined Cycle power plant consists of :

- One Gas Turbine (79 MW) firing Natural Gas as fuel to generate electricity,
- One Heat Recovery Steam Generator (HRSG) that uses the exhaust gases from the gas turbine to produce superheated steam,
- One steam turbine (76.5 MW),
- Cooling system in which the steam turbine exhaust will be condensed in the condenser and pumped to deaerator and then to the HRSG Solar Island



THE SOLAR FIELD

The solar field consists of parallel rows of Solar Collector Arrays (SCAs), sets of typical U shaped glass mirrors forming parabolic troughs. The trough focuses solar energy on an absorber pipe located along its focal line (Heat Collection Element "HCE"). The solar collectors are connected in series and parallel to produce the required heat energy by tracking the sun from east to west while rotating on a north-south axis.

A heat transfer fluid (HTF), (typically synthetic oil) is circulated through the receiver heated to a temperature up to 393 °C at 20 bar. The fluid is pumped to a heat exchanger to generate steam that can be superheated in the HRSGs and integrated with the steam generated from the Combined Cycle (CC) before introducing it to the Steam Turbine (ST) to generate electricity.