الهيئة العامة للكهرباء والمياه Public Authority for Electricity and Water



RENEWABLE ENERGY INITIATIVES IN OMAN

Public Authority for Electricity and Water

BY Ahmed Al Jahdhami GM– Policy & Strategy



Presentation Outline



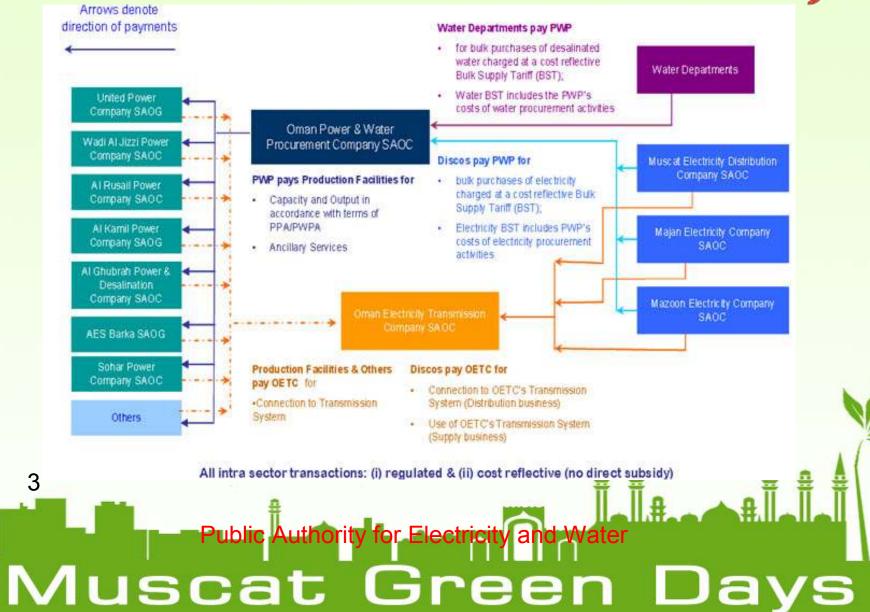
Presentation outline

- Background
- Renewable Energy in Oman
- Large Scale Solar Power Plant
- Way Forward

Public Authority for Electricity and Water Days

Oman Electricity Market Structure





Key challenges

- Double Digit Growth
- Subsidized electricity tariff
- Fuel issues

4

Public Authority for Electricity and Water



Renewable Energy in Oman



- The Government of Oman has clearly stated its support for the implementation of renewable energy initiatives in Oman
- A ministerial committee has been established to oversee and coordinate efforts – chaired by Ministry of National Economy
- A technical committee has been formed chaired by Public Authority for Electricity & Water
- The Authority for Electricity Regulation (AER) commissioned a study to investigate the potential for renewable energy projects in the electricity sector. The full study is available on AER web site <u>www.aer-oman.org</u>
- The Public Authority for Electricity and Water is taking steps to implement solar and wind energy projects, to coordinate efforts to identify the need for research and development and to identify the need for policy and other support mechanisms

Public Authority for Electricity and Water Muscat Green Days

Study on Renewable Energy Resources - 2008



Objectives:

- To provide an overview of renewable sources of energy in Oman & the potential use of renewable energy for electricity production
- To provide a platform for developing renewable energy policies for Oman

Findings:

• Significant potential from: Solar & Wind

scat Greer

Limited potential from: Biogas, Geothermal & Wave

Public Authority for Electricity and Wate

Large Scale Solar Power Project 🤾

Feasibility Study

Selection of optimum location & Capacity

• Review Market structure and regulatory framework

•PPA structure & Risk matrix

7

 12 months from approval of strategy by government

- Tendering process designed to ensure:
 - Economic Purchase (of capacity and output)

Competition

Process

- Fairness and transparency
- · Bankability of the project

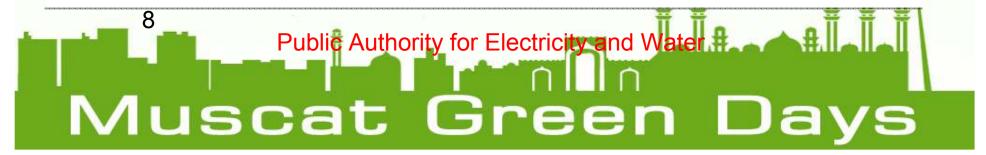
Public Authority for Electricity and Water

RE way forwarded



| Policy & Strategy | Project Implementation | | Capacity Building | | | |
|--|---|--------------------|--------------------|--|--|--------------------------|
| | 1. Pilot Projects | R | 8 & D | Industrial | | Human Resources |
| 1. Developing Policy for R.E development | (RAECO) 2. 100 – 200 MW | 1. R.E Des | alination | 1. Row material extractions | | University Programs |
| | Solar Plant (Grid Connected) | | | 2. Manufacturing | | Engineering and O & M |
| 2. R & D Policy | 3. Wind Monitoring Program then | 3. Sola 4. Foci | ar Cooling used | Added value services | | Skills Research & |
| | Wind farm | spec | | | | Development |
| 3. Regulatory review | Green Buildings R.E Database | tech | nologies | | | Utilities experience |
| | | | | | | |

Benchmark/ Monitoring / Feedback





Thank You