الشركة العمانية لشراء الطاقة والمياه (ش.م.ع.م)
OMAN POWER AND WATER PROCUREMENT CO. (SAOC)

OPWP's 7-YEAR STATEMENT

(2008 – 2014)

APPROVED BY THE AUTHORITY FOR ELECTRICITY REGULATION, OMAN

December 2007

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Glossary

CCGT	combined-cycle gas turbine
DPC	Dhofar Power Company SAOG
GJ	gigajoule(s)
GPDC	Al-Ghubrah Power and Desalination Company SAOC
GWh	gigawatt hour(s) = million (10^6) kWh
I(W)PP	independent (water and) power project
kWh	kilowatt hour(s)
LOLH	loss of load hours
m^3	cubic meter(s)
MEDC	Muscat Electricity Distribution Company SAOC
MIGD	million imperial gallons per day
MIS	Main Interconnected System
MISC	Majis Industrial Services Company SAOC
MJEC	Majan Electricity Company SAOC
MW	megawatt(s)
MZEC	Mazoon Electricity Company SAOC
OCGT	open-cycle gas turbine
OETC	Oman Electricity Transmission Company SAOC
OPWP	Oman Power and Water Procurement Company SAOC
PAEW	Public Authority for Electricity and Water
RAEC	Rural Areas Electricity Company SAOC
Sm^3	standard cubic meter(s)
TCF	trillion (10^{12}) (standard) cubic feet
TWh	terawatt hour(s) = billion (10^9) kWh

OVERVIEW

This statement provides a 7-year outlook, for the period from 2008 to 2014, on the demands for electricity and desalinated water, and the power generation and water desalination resources required to meet those demands, in the two main systems in Oman, the Main Interconnected System (MIS) and the Salalah System.

The statement has been prepared and published in accordance with condition 5 of OPWP's license. The next statement (for 2009 to 2015) will be published in December 2008.

The highlights of this statement are as follows:

Demand for Electricity

- The maximum power demand in the MIS is expected to grow from **2,682 MW** in 2007 to **5,111 MW** by 2014, an average annual increase of around 10% or 350 MW per year. Annual energy demand in the MIS is expected to grow at a similar rate, from **12.5 TWh** in 2007 to **24.0 TWh** in 2014.

- Under "high case" assumptions, MIS demands grow an additional 2% per year to reach **5,806 MW** and **28.3 TWh** by 2014 .

- In the Salalah System, the maximum demand is expected to grow from **251 MW** in 2007 to **580 MW** by 2014, an average annual increase of around 13% or 50 MW per year, with annual energy demand growing at around 14% per year, from **1.4 TWh** in 2007 to **3.5 TWh** in 2014.

- Under "high case" assumptions, Salalah System demands also grow an additional 2% per year to reach **680 MW** and **4.0 TWh** by 2014.

Demand for Desalinated Water

- Demand for desalinated water in the regions covered by the MIS is expected to increase from **88 million m^3** in 2007 to **236 million m^3** by 2014, reflecting a policy of reduced reliance on groundwater resources, as well the effects on demand of population growth and economic development.

- Demand for desalinated water in the Salalah area is not expected to increase, in the period to 2014, beyond the **24 million m^3** per year to be provided (from 2011) by the Salalah IWPP.

Additional Power Generation / Water Desalination Requirements

- Between **1800 MW** and **2500 MW** of additional power generation resources are needed for the MIS by 2014.

- Between **380 MW** and **485 MW** of additional power generation resources are needed for the Salalah System by 2014. All or most of this will ultimately be provided by the Salalah IWPP. However, up to **210 MW** of additional power generation is required on a short-term basis by 2010, prior to the anticipated completion of the Salalah IWPP.

- At least **133,000 m^3 per day (29 MIGD)** of additional water desalination capacity is needed for the regions covered by the MIS. Further additional capacity may be required to support enhanced security of supply.

- For Salalah, no additional desalination requirements are foreseen for the time being beyond those covered by the Salalah IWPP.

Procurement Strategy

- OPWP to pursue procurement strategy with dual focus of:

  - ensuring sufficient resources are available to meet demands; and

  - improving fuel efficiency, for reduced energy (and water) costs and emissions.

- OPWP to launch competitive procurement processes during 2008 covering:

  - new "green-field" I(W)PP capacity of **750-1000 MW** to be available from 2011/2012 and located at Barka and/or Sohar; and

  - expansion/redevelopment of the Al-Ghubrah Power and Desalination Plant, including a new IWPP providing additional power capacity of up to **500 MW**, to be available from 2011/2012 and located on part of the site presently occupied by Al-Ghubrah Power and Desalination Company SAOC (GPDC), combined with integration of existing assets to be acquired from GPDC.

- Further new I(W)PP, with potential capacity of up to **1000 MW** may be required in 2013-2014 timeframe.

- OPWP to pursue options for procurement of additional generation for the MIS, to meet short-term requirements, supplement capacity provided by IWPPs and/or provide fuel efficiency benefits, from:

  - existing non-contracted resources;

  - interconnected systems; and/or

  - conversion of existing open-cycle gas turbine capacity to combined-cycle.

- Ongoing procurement process for **370-430 MW** and **68,000 m^3 per day (15 MIGD)** Salalah IWPP to be completed during 2008, with a view to securing full availability of the plant by early 2011. Some "early power" may be secured from the Salalah IWPP for 2010.

- OPWP is pursuing and/or considering a number of additional options to address short-term generation requirements in the Salalah System prior to 2011, including:

  - fast-track completion of interconnect with PDO system, tapping surplus generation resources available in the PDO system and/or the MIS;

- relocation of gas turbine units from Wadi Al-Jizzi power plant to Salalah;
- enhancement of the capacity of the Raysut NPS gas turbines by DPC; and
- temporary generation based on gas or diesel engine rental.

Fuel Requirements for Power Generation / Water Desalination

- With an "all-gas" strategy, total gas requirements for MIS power generation and water desalination increase from **168 million GJ** (or **12.5 million Sm^3 per day**) in 2007 to around **257 million GJ** (or **19.1 million Sm^3 per day**) by 2014, based on expected demand growth, or to **300 million GJ** (or **22.2 million Sm^3 per day**) under "high case" demand growth.
- Total gas requirements for Salalah System power generation and water desalination are expected to increase from **17 million GJ** (or **1.2 million Sm^3 per day**) in 2007 to around **32 million GJ** (or **2.4 million Sm^3 per day**) by 2014, based on expected demand growth, or to **39 million GJ** (or **2.9 million Sm^3 per day**) under "high case" demand growth.
- The cumulative combined gas requirement for the MIS and Salalah System over the 7 year period from 2008 to 2014 (with an ''all-gas" strategy) amounts to around **1.7 - 1.9 TCF**.
- In light of the substantial requirements and increasing opportunity costs of gas consumption, the Government has asked OPWP to consider options for diversification away from an "all-gas" strategy, and identify the potential use of other fuels for power generation and water desalination. Options for the utilization of renewable resources are also being explored.

Further details in respect of each of the MIS and the Salalah System are set out in sections 1 and 2 below. More information is available on the web at www.omanpwp.co.om.

SECTION 1 – MAIN INTERCONNECTED SYSTEM (MIS)

*The **Main Interconnected System (MIS)** covers the Governorate of Muscat, the Governorate of Buraimi and most of the South Batinah, Dakhliyah, Sharqiya, North Batinah and Dhahirah regions, serving around 500,000 electricity customers.*

It comprises a number of power generation facilities, owned and operated by various companies; a single 220/132 kV transmission grid, owned and operated by Oman Electricity Transmission Co. (OETC); and three distribution networks, owned and operated by Muscat Electricity Distribution Co. (MEDC), Mazoon Electricity Co. (MZEC) and Majan Electricity Co. (MJEC). The three distribution network operators also act as "licensed electricity suppliers", supplying existing and new electricity customers in their respective service areas. The MIS is presently interconnected in Oman with the power system of Petroleum Development Oman (PDO), and will shortly be interconnected with the power system of the Emirate of Abu Dhabi. Several of the power generation facilities connected to the MIS produce desalinated water in conjunction with electricity, to meet the regional requirements of "water departments" responsible for supplying water to customers (including the Public Authority for Electricity and Water (PAEW) and Majis Industrial Services Co. (MISC)).

OPWP's role is to aggregate the power and desalinated water requirements of licensed electricity suppliers and water departments, and to economically procure the required power and desalinated water in bulk from facilities connected to the MIS and interconnected systems. OPWP is required to ensure that sufficient power generation resources are available to meet licensed electricity suppliers' demands and wherever feasible to co-procure desalinated water to meet the needs of water departments.

1.1 Demand for Electricity

Expected Demand

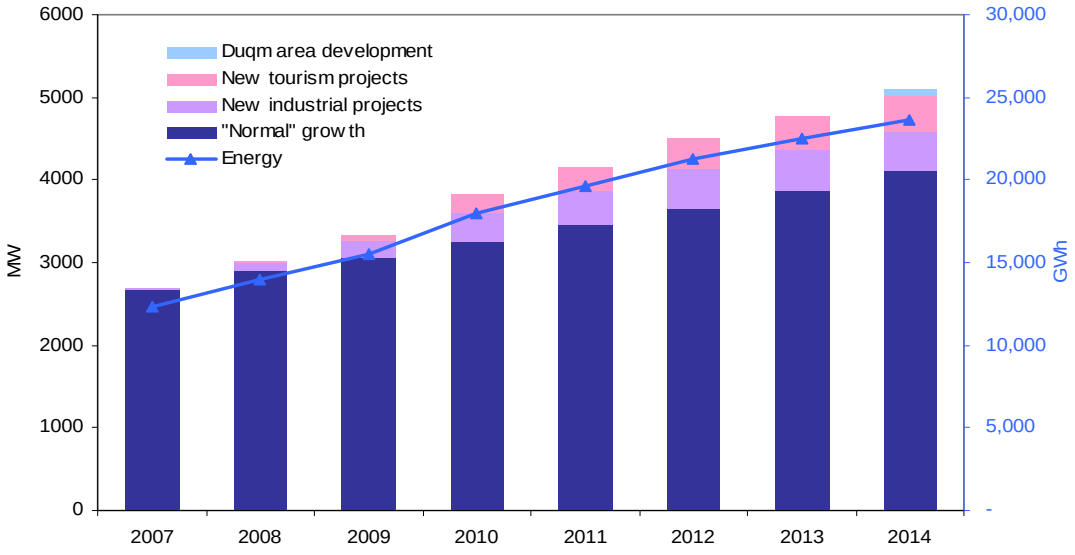
The maximum power demand in the MIS is expected to grow from 2,682 MW in 2007 to 5,111 MW by 2014, an average increase of around 10% or 350 MW per year. Annual energy demand is expected to grow similarly, from 12.5 TWh in 2007 to 24.0 TWh in 2014.

This growth is the product of:

- continuing underlying "normal" growth in all areas, from increasing population and number of households, rising personal incomes and general economic development;
- a major increase in demand from new industrial projects, concentrated in particular around the Sohar Industrial Port (in MJEC's service area);
- a major increase in demand from new tourism related developments, concentrated in particular around Muscat (in MEDC's service area) and in the South Batinah region (in MZEC's service area); and
- a potential extension of the MIS to Ad-Duqm in the Al-Wusta region towards the end of the 7-year period.

The annual build up of expected power and energy demands to 2014, and the contribution to the growth of each of the main drivers identified above, are shown in Figure 1.

Figure 1: Expected Power and Energy Demand – MIS



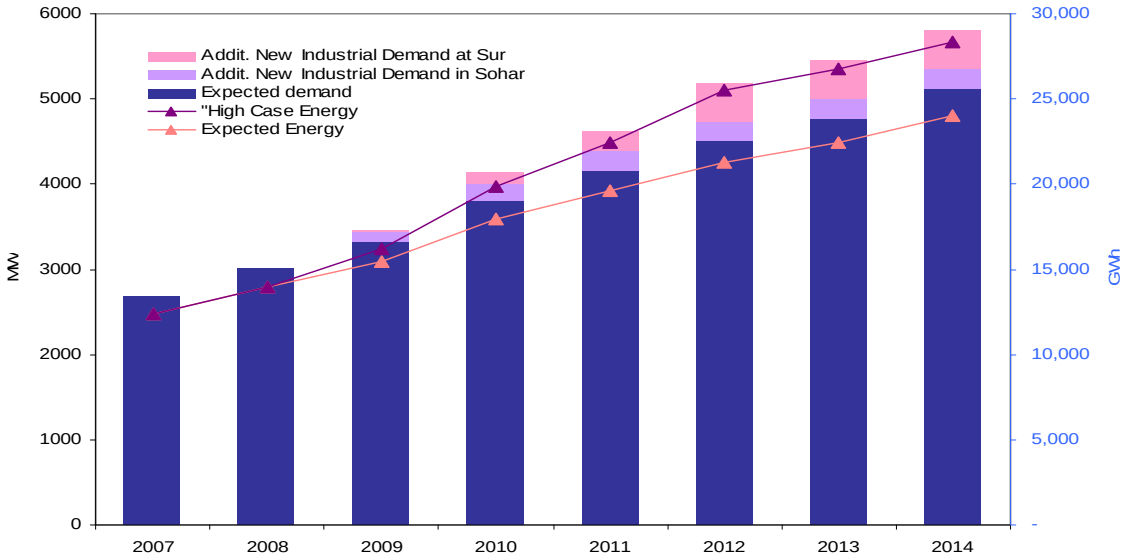
	2007	2008	2009	2010	2011	2012	2013	2014	Average annual growth
Expected Max Demand (MW)	**2,682**	**3,015**	**3,330**	**3,814**	**4,154**	**4,498**	**4,764**	**5,111**	9.6%
Including the growth from:									
"Normal" growth		221	396	580	775	982	1,201	1,434	
New industrial demands		94	186	344	410	476	476	476	
New tourism demands		18	66	208	287	358	405	429	
Extension of MIS to Ad-Duqm								90	
Change from 2007 Statement		*-292*	*-293*	*-104*	*-25*	*+90*	*+130*	*n/a*	
Energy (GWh)	**12,480**	**13,934**	**15,480**	**17,930**	**19,583**	**21,254**	**22,468**	**24,049**	10.0%

The expected demand is broadly in line, over the medium term, with that projected in the 2007 7-Year Statement, with a moderate increase (of around 130 MW) by 2013, due mainly to additional tourism demands associated with new projects that have been announced and/or confirmed over the past year. However, a substantial reduction (of around 290 MW) has been made to the expected 2008 and 2009 demands, based on a re-assessment of the likely timing of the build up of new industrial and tourism demands. The expected integration of Ad-Duqm has also been shifted out to 2014 (from 2009 in the previous Statement) as it is now anticipated that the demand in Ad-Duqm will be met until that time by local generation provided by RAEC.

"High Case" Demand

Although the projection shown in Figure 1 reflects the currently expected development of demand, OPWP is cognizant of the possibility of significant further industrial development at the Sohar Industrial Port Area and at Sur. This could potentially add an additional 685 MW of peak demand by 2014, as shown in Figure 2 as a "high case" demand scenario.

Figure 2: "High Case" Power and Energy Demand – MIS



	2008	2009	2010	2011	2012	2013	2014	Average annual growth
"High Case" Max Demand (MW)	**3,015**	**3,452**	**4,135**	**4,620**	**5,193**	**5,459**	**5,806**	11.7%
Including:								
Expected Demand	3,015	3,330	3,814	4,154	4,498	4,764	5,111	
Additional Industrial Demand – Sohar		104	184	238	238	238	238	
Additional Industrial Demand – Sur		18	137	228	457	457	457	
Change from 2007 Statement	*-292*	*-274*	*-28*	*+9*	*+200*	*+171*	*n/a*	
"High Case" Energy (GWh)	**13,934**	**16,231**	**19,897**	**22,441**	**25,512**	**26,726**	**28,307**	12.6%

As with the expected demands, the "high-case" demands are lower in the short-term but moderately higher (by up to 200 MW) over the medium-term than those projected in the 2007-2013 7-Year Statement. This reflects the inclusion of the possibility of substantial additional demand at Sur (which was not foreseen in the previous statement), offset to some degree by a reduction in the potential additional demand at Sohar.

In OPWP's view, the likelihood of the "high-case" demands being realized is most dependent on the Government's future policy stance with regard to the promotion of additional industrial development, and in particular energy-intensive industry. OPWP intends to consult closely over the

coming months with concerned Government authorities in order to assess the probability associated with the "high case" projection.

Exports to Interconnected Systems

The MIS is presently interconnected in Oman with the PDO power system (by a 132 kV link), and will shortly be interconnected with the power system of the Emirate of Abu Dhabi (by a 220 kV link). It is anticipated that the latter will in due course become part of the wider GCC interconnect, linking the power systems of all six GCC countries.

In addition to providing reliability benefits (through the sharing of generation reserves), these interconnects provide the opportunity for the "commercial" export of power, which would potentially add to the firm demand to be served by generation resources in the MIS.

For the time being, however, no definite arrangements have been agreed for commercial exports, and accordingly the current demand projections (presented above) include the native power demands of the MIS only.

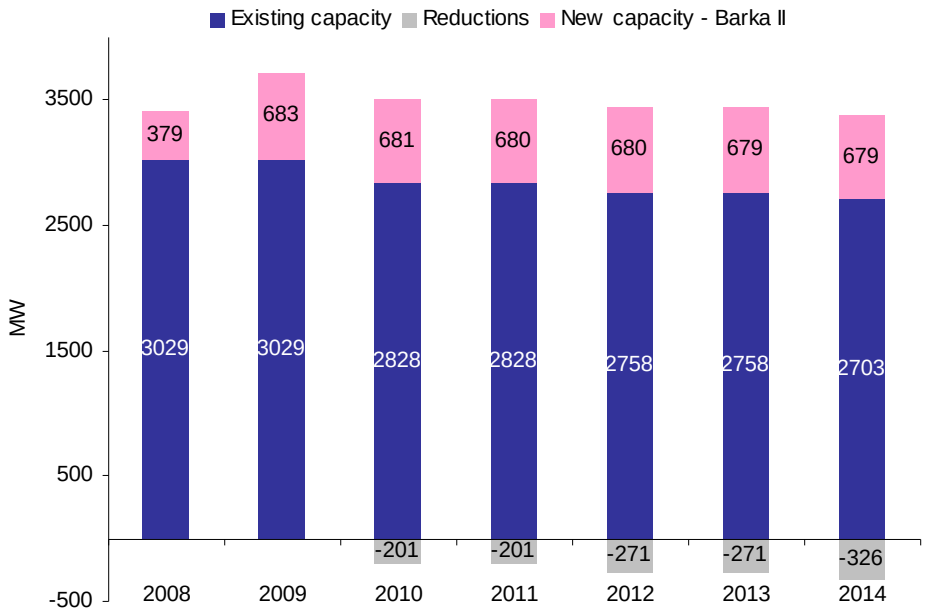
1.2 Power Generation Resources

Contracted Generation Capacity

OPWP's present portfolio of contracted generation capacity in the MIS is expected to provide around 3,408 MW of firm capacity in 2008, rising to 3,712 MW in 2009 with the full commissioning of the Barka II plant, and then falling to 3,382 by 2014 as a result of some capacity at Al-Ghubrah and Wadi Al-Jizzi falling out of contract.

A summary of the contracted generation capacity (rated at 45°C ambient, corresponding to peak summer conditions) is provided in Figure 3.

Figure 3: Contracted Generation Capacity – MIS



	2008	2009	2010	2011	2012	2013	2014
Existing capacity (MW)							
Al-Ghubrah Power & Desalination Plant	473	473	272	272	272	272	217
Rusail Power Plant	684	684	684	684	684	684	684
Wadi Al-Jizzi Power Plant	287	287	287	287	217	217	217
Manah Power Plant	279	279	279	279	279	279	279
Al Kamil Power Plant	282	282	282	282	282	282	282
Barka I Power & Desalination Plant	434	434	434	434	434	434	434
Sohar Power & Desalination Plant	590	590	590	590	590	590	590
Total	**3,029**	**3,029**	**2,828**	**2,828**	**2,758**	**2,758**	**2,703**
Reductions (cumulative)			*-201*	*-201*	*-271*	*-271*	*-326*
New capacity (MW)							
Barka II Power & Desalination Plant	379	683	681	680	680	679	679
Total contracted capacity (MW)	**3,408**	**3,712**	**3,509**	**3,508**	**3,438**	**3,437**	**3,382**

Non-Contracted Generation Capacity

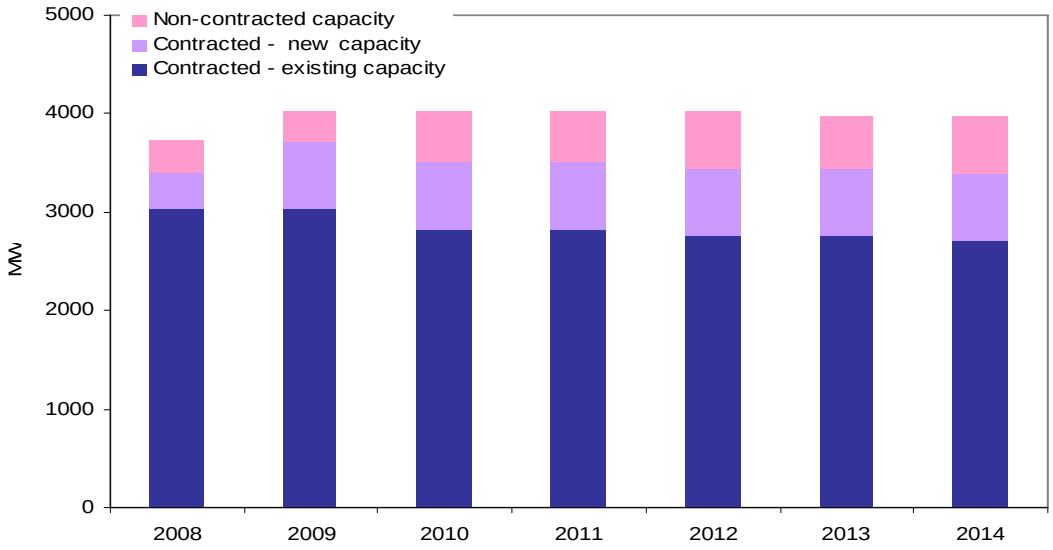
In addition to the contracted capacity identified above, there are a number of other generation resources in the MIS, either existing or under development, which (subject to contract) are potentially available to OPWP during 2008-2014. These include:

- continued availability of some out of contract capacity at Al-Ghubrah and Wadi Al-Jizzi;

- availability in excess of contracted capacity levels at some plants; and
- surplus capacity of several industries with captive generation (including most significantly the aluminium smelter currently under construction at Sohar).

Such resources are expected to add up to around 320 MW in 2008, rising to around 594 MW by 2014, and resulting in total installed capacity potentially available to OPWP of around 4000 MW from 2009 to 2014. The annual build up of these resources is shown in Figure 4.

Figure 4: Contracted and Non-Contracted Generation Capacity – MIS



	2008	2009	2010	2011	2012	2013	2014
Out of contract capacity (MW)							
Al-Ghubrah Power & Desalination Plant			201	201	201	153	208
Wadi Al-Jizzi Power Plant					70	70	70
Above contract capacity (MW)							
Al Kamil Power Plant	5	5	5	5	5	5	5
Barka II Power & Desalination Plant	20	20	20	20	20	20	20
Sohar Power & Desalination Plant	15	15	15	15	15	15	15
Industries' surplus capacity (MW)							
Oman Mining Co.	20	20	20	20	20	20	20
Oman Cement Co.	5	5					
Sohar Refinery Co.	35	35	35	35	35	35	35
Sohar Aluminium Co.	220	220	220	220	220	220	220
Total non-contracted capacity (MW)	**320**	**320**	**516**	**516**	**586**	**538**	**593**
Total contracted capacity (MW) [from Fig. 3]	***3,408***	***3,712***	***3,509***	***3,508***	***3,438***	***3,437***	***3,382***
Total capacity potentially available to OPWP	**3,728**	**4,032**	**4,025**	**4,024**	**4,024**	**3,975**	**3,975**

Imports from Interconnected Systems

As noted above, the MIS is interconnected in Oman with the PDO power system, and will shortly be interconnected with the power system of the Emirate of Abu Dhabi. These interconnects facilitate both reliability imports (through reserve sharing arrangements) as well as the possibility of "commercial" imports.

The import-direction capacities of the PDO and Abu Dhabi interconnectors are around 100 MW (0 MW firm) and 600 MW (300 MW firm) respectively.

Subject to surplus generation availability in the interconnected systems, both interconnects will contribute to the reliability of supply in the MIS throughout the 2008-2014 period. In addition, OPWP intends to pursue the possibility of importing power commercially over the Abu Dhabi interconnector as part of its overall generation resource procurement strategy.

1.3 Additional Power Generation Requirements

OPWP is required to ensure the adequacy of generation resources to meet future power demands. This requires as a minimum that sufficient on-peak generation capacity is available to OPWP to cover each year's expected maximum demand. Further, the Authority for Electricity Regulation, Oman has stipulated a *generation security standard* for the MIS which takes into account expected demand profiles as well the expected reliability and dispatchability of generation resources. This is expressed in terms of the expected loss of load hours (known as "LOLH"), which in any year must not exceed 24 hours.

OPWP's intention is to ensure that these requirements are met on the basis of firm, contracted resources (noting that the availability of additional non-firm resources and reserve sharing arrangements with interconnected systems will further enhance reliability, i.e. reduce loss of load hours below the 24 hour limit).

Based on the demand projections and considering OPWP's present portfolio of contracted capacity, shortfalls in firm generation and corresponding excesses in LOLH (above the 24 hour limit) are expected to open up during 2010-2014, as shown in Figure 5.

Figure 5: Potential Generation Shortfall and LOLH – MIS

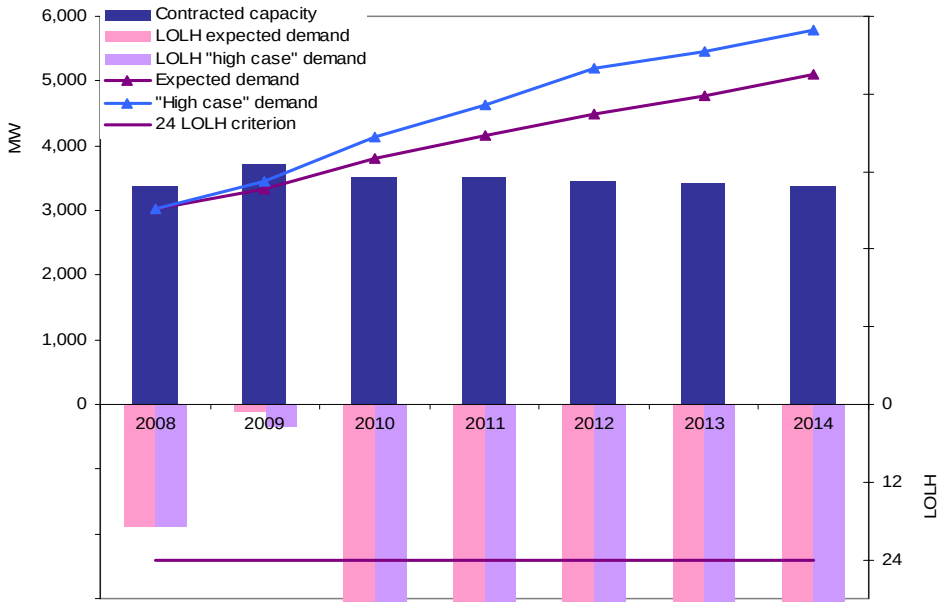
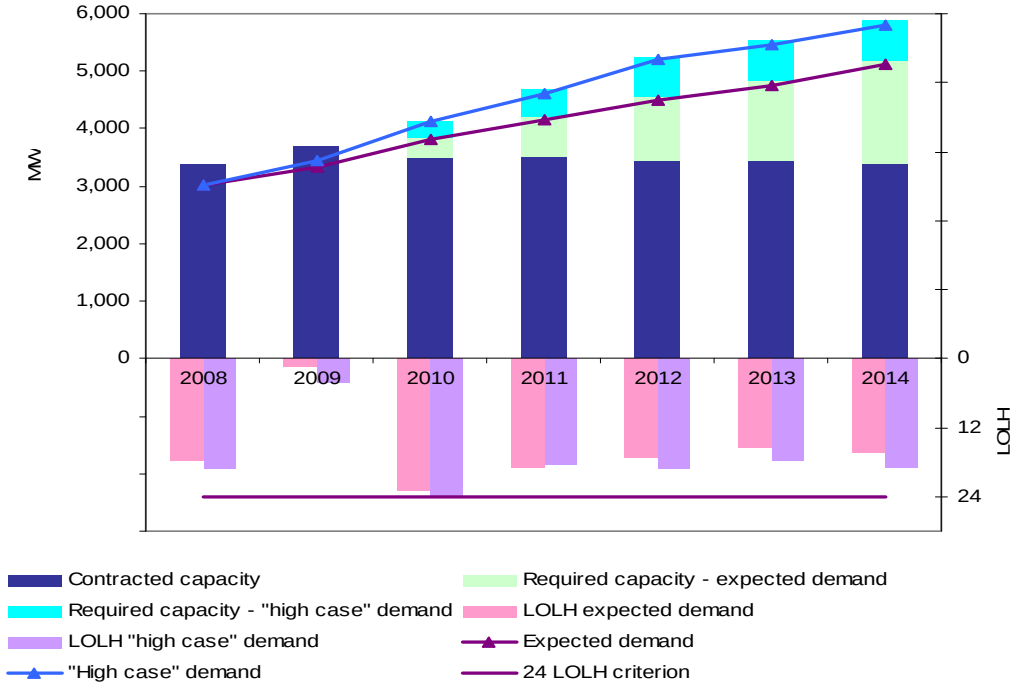


Figure 5 illustrates the need for OPWP to contract for additional generation resources. OPWP has calculated that it will need to contract for a minimum of around 1800 MW of firm on-peak generation by 2014, and a further 700 MW in the "high case" demand scenario. The annual build up of these requirements is shown in Figure 6.

Figure 6: Additional Generation Required – MIS



	2008	2009	2010	2011	2012	2013	2014
Minimum Additional Generation Required (MW)							
For expected demand	-	-	320	700	1100	1400	1800
For "high case" demand	-	-	625	1200	1800	2100	2500

Details of OPWP's strategy in respect of the procurement of these additional resource needs are provided in section 1.8 below.

1.4 Demand for Desalinated Water

The total demand for desalinated water in the regions covered by the MIS is expected to grow from around 88 million m^3 per year in 2007 to 236 million m^3 per year in 2014, an average annual increase of around 15% per year.

This increase reflects a major policy drive away from reliance on groundwater resources in most regions, as well as the effects on demand of population growth and economic development.

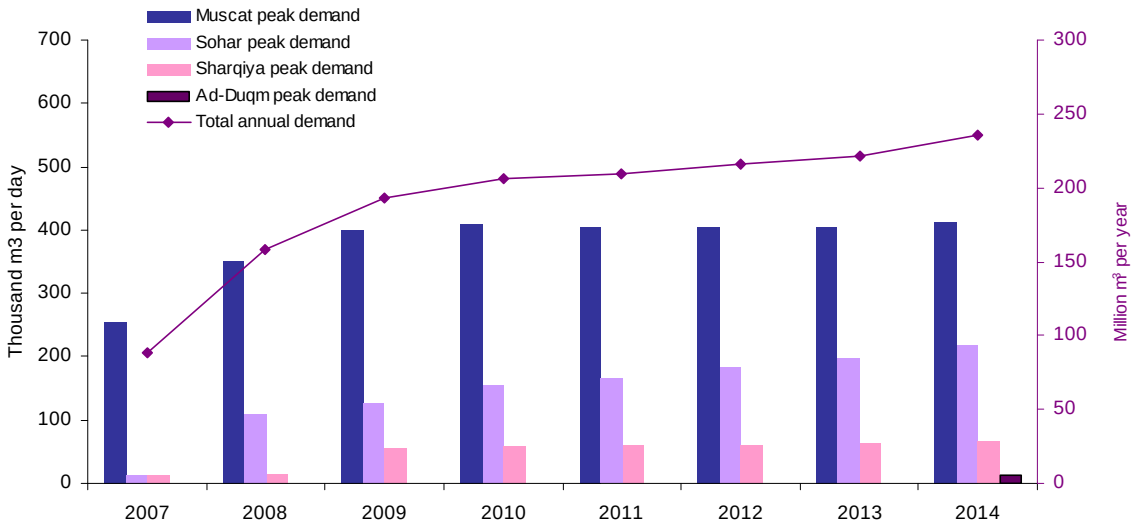
Detailed demand projections have been provided to OPWP by the responsible water departments, PAEW and MISC, and these have been organized into four separate zones, reflecting the general configuration of the water supply infrastructure and the likely sources of supply.

The "Muscat" zone covers the Governorate of Muscat and the South Batinah and Dakhliyah regions. The "Sohar" zone covers the North Batinah and Dhahirah regions, and the Governorate of Buraimi. The "Sharqiya" zone covers the Sharqiya region. And the Ad-Duqm zone covers the town of Ad-Duqm, which is expected to be connected with the MIS in 2014.

The "peak demand" for desalinated water (defined as the average daily demand during the peak month of the year) is projected reach 412,000 m^3 per day, 220,000 m^3 per day, 66,000 m^3 per day and 13,000 m^3 per day in the "Muscat", "Sohar", "Sharqiya" and "Ad-Duqm" zones respectively by 2014.

The expected build up of the total demand and the peak demands in the four zones is summarized in Figure 7.

Figure 7: Expected Desalinated Water Demand – MIS Regions



	2007	2008	2009	2010	2011	2012	2013	2014
Peak demand (*thousand m^3 per day*)								
"Muscat" zone	255	352	399	410	404	405	404	412
"Sohar" zone	13	109	127	155	166	183	199	220
"Sharqiyah" zone	12	15	56	58	60	62	64	66
"Ad-Duqm" zone								13
Total	**280**	**476**	**582**	**623**	**630**	**650**	**667**	**711**
Total annual demand (*million m^3 per year*)	88	158	193	207	209	216	222	236

It may be noted that after growing rapidly to 2009 (as new areas are supplied with desalinated water), the "Muscat" zone demand levels off and actually falls between 2010 and 2013. OPWP understands that this is due to an ambitious loss-reduction program to be implemented by PAEW, and that the assumptions associated with the impact of this program add a dimension of uncertainty to the projections.

1.5 Water Desalination Resources

The "Muscat" zone is currently served by the Al-Ghubrah Power and Desalination Plant, with a capacity of around 182,000 m^3 per day (approximately 40 MIGD) and the Barka I Power and Desalination Plant, with a capacity of around 91,000 m^3 per day (20 MIGD). This capacity will be supplemented in 2009 with the commissioning of the Barka II Power and Desalination Plant, with a capacity of 120,000 m^3 per day (26.4 MIGD). This will bring the total capacity in the "Muscat" zone in 2009 to around 394,000 m^3 per day (86.4 MIGD). This capacity is all contracted to OPWP and the water purchased is sold by OPWP to PAEW.

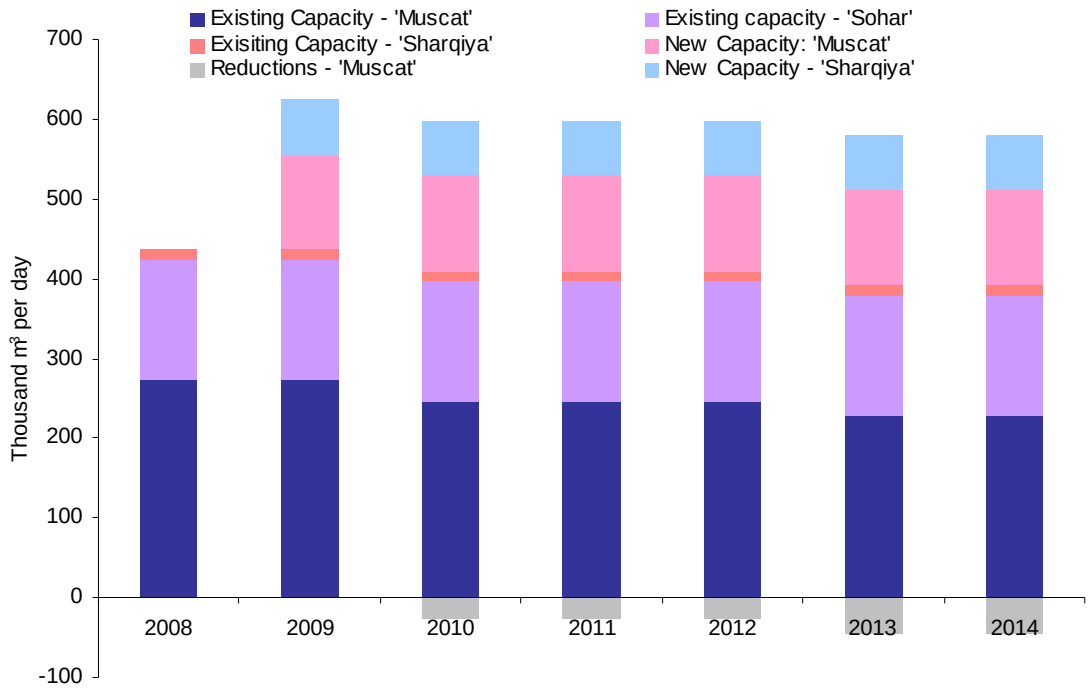
OPWP's present contract in respect of the desalination capacity at Al-Ghubrah contemplates the retirement of two of the seven desalination units at the plant, with a combined capacity of 44,000 m^3 per day (9.7 MIGD), after the summer of 2009. However, OPWP has already agreed in principle to a contract extension in respect of one of these units, with a capacity of 18,000 m^3 per day (4 MIGD). This involves a refurbishment of the unit to ensure reliability, and an extension of the contracted period to 2012. With this capacity extended, the contracted desalination capacity at Al-Ghubrah is 156,000 m^3 per day from 2010 to 2012 and 138,000 m^3 per day from 2012 to 2014, and the total "Muscat" zone capacity is 367,000 m^3 per day and 349,000 m^3 per day during the same periods.

The Sohar Power and Desalination Plant, with a capacity of 150,000 m^3 per day, came on-line in the "Sohar" zone in 2007. This capacity is contracted to OPWP for 15 years and the water purchased will be sold by OPWP to PAEW and MISC.

The "Sharqiya" zone is presently served by the Sur Desalination Plant, with a capacity of 12,000 m^3 per day. This will be supplemented in 2009 with the commissioning of the new 68,000 m^3 per day Sur Desalination Plant, bringing the total desalination capacity for the "Sharqiya" zone to 80,000 m^3 per day. This capacity, being desalination only, is contracted directly to PAEW not OPWP.

The existing and new desalination capacity of the three zones presently covered by the MIS ("Muscat", "Sohar", "Sharqiya") is summarized in Figure 8.

Figure 8: Desalination Capacity – MIS Regions



	2008	2009	2010	2011	2012	2013	2014
"Muscat" Zone							
Existing capacity (*thousand m^3 per day)*							
Al-Ghubrah Power & Desalination Plant	182	182	156	156	156	138	138
Barka I Power & Desalination Plant	91	91	91	91	91	91	91
New capacity (*thousand m^3 per day)*							
Barka II Power & Desalination Plant		120	120	120	120	120	120
"Muscat" Total (*thousand m^3 per day)*	**274**	**394**	**367**	**367**	**367**	**349**	**349**
Reductions (cumulative)			(27)	(27)	(27)	(44)	(44)
'Sohar" Zone							
Existing capacity (*thousand m^3 per day)*							
Sohar Power & Desalination Plant	150	150	150	150	150	150	150
"Sohar" Total (*thousand m^3 per day)*	**150**	**150**	**150**	**150**	**150**	**150**	**150**
"Sharqiya" Zone							
Existing capacity (*thousand m^3 per day)*							
Sur Desalination Plant	12	12	12	12	12	12	12
New capacity (*thousand m^3 per day)*							
New Sur Desalination Plant		68	68	68	68	68	68
"Sharqiya" Total (*thousand m^3 per day)*	**12**	**80**	**80**	**80**	**80**	**80**	**80**
Total Capacity (*thousand m^3 per day)*	**435**	**623**	**597**	**597**	**597**	**579**	**579**

1.6 Additional Water Desalination Requirements

Figure 9 below provides a comparison of the annual peak demands and desalination capacities for each of the "Muscat", "Sohar" and "Sharqiya" zones.

For the "Muscat" zone:

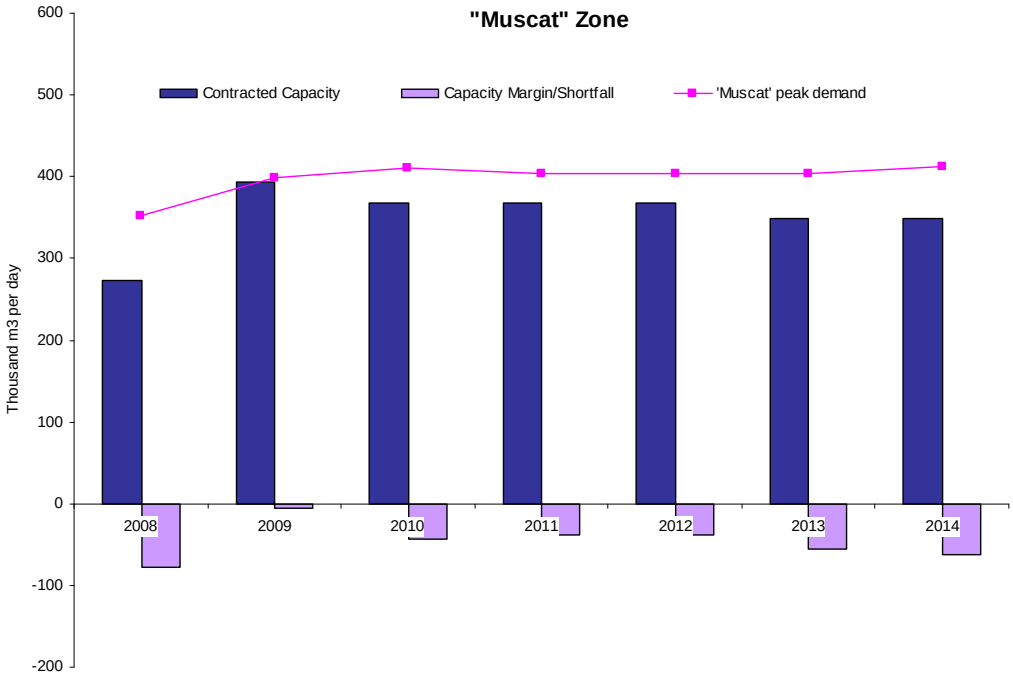
- a capacity shortfall of around 78,000 m^3 per day is indicated in 2008 – this may be mitigated to some extent by transfers from the "Sohar" zone (PAEW is implementing a project to provide up to 50,000 m^3 per day of transfer capacity), or alternatively continued utilization of local groundwater resources may be required in this year;
- the addition of the Barka II capacity in 2009 will reduce the shortfall to 5,000 m^3 per day, which again could be offset by transfers from the "Sohar" zone; and
- the reduction of capacity at Ghubrah after 2009 will result in shortfalls of between 37,000 m^3 per day and 63,000 m^3 per day from 2010 to 2014.

Following the installation of the new desalination capacity at Sohar in 2007, the "Sohar" zone has expected capacity margins of 41,000 m^3 per day and 23,000 m^3 per day in 2008 and 2009, which as noted above could potentially be utilized to cover shortfalls in the "Muscat" zone. From 2010 onwards however, shortfalls are expected in the "Sohar" zone, reaching up to 70,000 m^3 per day by 2014. Taken together, the "Muscat" and "Sohar" zones have an expected combined shortfall of around 133,000 m^3 per day by 2014.

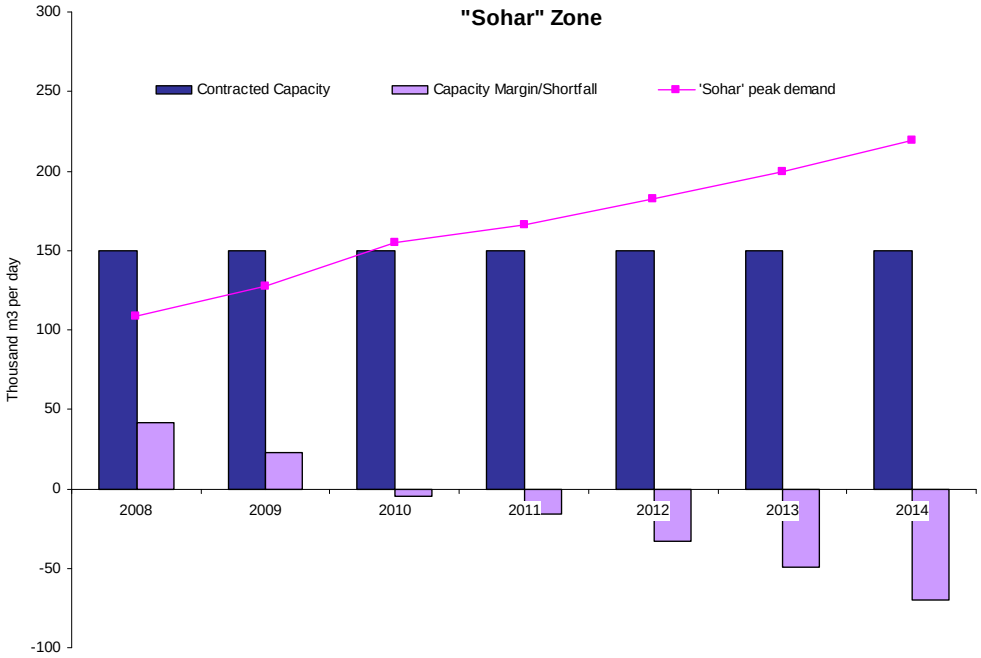
Following the installation of the new desalination capacity at Sur in 2009, the "Sharqiya" zone shows a surplus capacity out to 2014.

For the Ad-Duqm zone, OPWP understands that RAEC intends to install water desalination capacity to meet demands at least until such time as the area is connected to the MIS (which is expected in 2014).

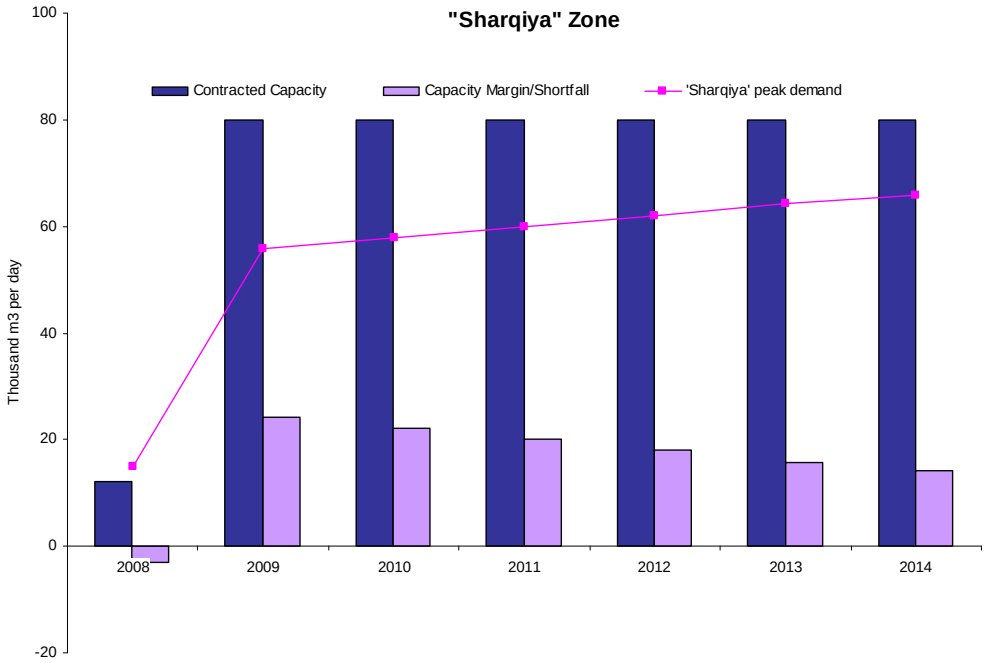
Figure 9: Desalination Capacity Margin /Shortfall - MIS Regions



	2008	2009	2010	2011	2012	2013	2014
"Muscat" Zone							
Peak Demand (*thousand m^3 per day) [from Fig. 7]*	**352**	**399**	**410**	**404**	**405**	**404**	**412**
Contracted Capacity (*thousand m^3 per day) [from Fig. 8]*							
Al-Ghubrah Power & Desalination Plant	182	182	156	156	156	138	138
Barka I Power & Desalination Plant	91	91	91	91	91	91	91
Barka II Power & Desalination Plant		120	120	120	120	120	120
Total	**274**	**394**	**367**	**367**	**367**	**349**	**349**
Capacity Margin / (Shortfall)	**(78)**	**(5)**	**(43)**	**(37)**	**(38)**	**(55)**	**(63)**



	2008	2009	2010	2011	2012	2013	2014
"Sohar" Zone							
Peak Demand (*thousand m^3 per day) [from Fig. 7]*	**109**	**127**	**155**	**166**	**183**	**199**	**220**
Contracted Capacity (*thousand m^3 per day) [from Fig. 8]*							
Sohar Power & Desalination Plant	150	150	150	150	150	150	150
Total	**150**	**150**	**150**	**150**	**150**	**150**	**150**
Capacity Margin / (Shortfall)	**41**	**23**	**(5)**	**(16)**	**(33)**	**(49)**	**(70)**



	2008	2009	2010	2011	2012	2013	2014
"Sharqiya" Zone							
Peak Demand (*thousand m^3 per day) [from Fig. 7]*	**15**	**56**	**58**	**60**	**62**	**64**	**66**
Capacity (*thousand m^3 per day) [from Fig. 8]*							
Sur Desalination Plant	12	12	12	12	12	12	12
New Sur Desalination Plant		68	68	68	68	68	68
Total	**12**	**80**	**80**	**80**	**80**	**80**	**80**
Capacity Margin / (Shortfall)	**(3)**	**24**	**22**	**20**	**18**	**16**	**14**

As indicated above, the "Muscat" and "Sohar" zones have an expected combined desalination capacity shortfall of around 133,000 m^3 per day by 2014. This implies a need for at least this amount of additional capacity.

In addition, OPWP understands that PAEW is reviewing the overall planning philosophy with respect to security of supply of water. The philosophy has traditionally been to aim to match installed desalination capacity with the peak demand for desalinated water, and to rely on storage capacity and groundwater resources to cover contingencies. In light of increasing issues with groundwater resources, and greater overall reliance on desalination, it is understood that PAEW may move towards a policy of maintaining some reserve capacity (in conjunction with increased storage capacity).

Taken together with the uncertainty in the present demand projections (which could be on the low side due to overly ambitious assumptions with respect to the planned loss-reduction program), this may result in an increased requirement for additional capacity.

Indeed, discussions to date with PAEW have indicated an expected need for as much as 200,000 m^3 per day of additional capacity in the next few years. PAEW has indicated that its preferred locations for this capacity would be Al-Ghubrah and Barka.

1.7 Opportunity for Combining Power Generation and Water Desalination

In developing plans for procuring power generation resources OPWP is required to consider the opportunity for combining power generation with water desalination so as to benefit from economies of co-location and co-procurement.

Given the need for additional power generation in the MIS and the requirements of water departments for additional desalination capacity there is clearly an opportunity for procuring the capacity together.

Further, the preferred locations identified by PAEW for additional desalination capacity (Al-Ghubrah and Barka) are both potentially suitable sites for additional power generation capacity, due to proximity to demand, availability of land and infrastructure (fuel supply, power transmission etc.).

These factors are particularly relevant at Al-Ghubrah, where there are also good opportunities to improve gas utilization efficiency through redevelopment of the plant.

Accordingly OPWP is planning to proceed with an IWPP, combining the procurement of additional power generation and water desalination capacity, at Al-Ghubrah, and would expect to also proceed with an IWPP at Barka, if Barka is the chosen as a site for additional power generation capacity required in 2011/2012 (see below). The exact water desalination capacities required in each case are expected to be finalized, in consultation with PAEW, in early 2008.

1.8 Procurement Strategy for Power Generation and Water Desalination

As noted above, OPWP is required to ensure that sufficient generation resources are available to meet future power demands. And as identified in section 1.3, OPWP expects to need to procure between 1800 MW and 2500 MW of additional generation for the MIS during the 2010-2014 period, to meet growing demand (and compensate for capacity falling out of contract).

In light of global trends in energy prices and in particular the rising opportunity costs associated with gas consumption, OPWP intends to also focus its future procurement strategy on optimizing gas utilization efficiency. This will heavily influence the selection of generation options and may result in the procurement of capacity in excess of the minimum required needs (in order to benefit from fuel-efficiency savings).

In this context, OPWP's present thinking in relation to the procurement of additional generation resources during the 2010 to 2014 period is summarized below.

2010 **Requirement: 320-625 MW**

OPWP is considering options for the procurement of additional generation during this period from:

- existing non-contracted resources, as identified in Figure 4 above; and/or
- interconnected systems.

OPWP expects to finalize its strategy in respect of the above during 2008.

2011-2012 **Requirement: 1100-1800 MW**

OPWP intends to launch competitive procurement processes during 2008 covering:

- new "green-field" I(W)PP capacity of 750-1000 MW to be located at Barka and/or Sohar – the location(s) will be finalized in early 2008 after consultation with the Ministry of Oil & Gas (with respect to fuel supply), OETC (with respect to power transmission considerations) and the Ministry of Environment and Climate Affairs (with respect to environmental matters). If located at Barka, it is expected that desalination capacity would be procured together with the power generation capacity as part of an IWPP.

- expansion/redevelopment of the Al-Ghubrah Power and Desalination Plant, which will include a new IWPP providing additional power capacity of up to 500 MW together with additional desalination capacity, to be located on part of the site presently occupied by Al-Ghubrah Power and Desalination Company SAOC (GPDC), and combined with integration of existing assets to be acquired from GPDC. This project is intended to both provide additional capacity and significantly improve the fuel-efficiency of power generation and water desalination at Al-Ghubrah.

These projects are expected together to add between 1250 and 1500 MW of firm power generation in the 2011/2012 timeframe.

As noted above, OPWP's strategy will combine the need to secure required capacity with the aim of improving fuel efficiency, and in this context OPWP intends to explore the possibility of converting some of the open-cycle gas turbine capacity existing in the MIS to combined-cycle configuration. If implemented, this option could both improve fuel efficiency and provide up to around 300 MW of additional capacity within the 2011-2012 timeframe.

To the extent that further additional resources are required to supplement the above, OPWP would look to secure the required generation from existing non-contracted resources and/or interconnected systems.

2013-2014 Requirement: 1800-2500 MW (Incremental Requirement: 0-1250 MW)

The incremental requirement for additional generation in this period will depend on the exact amount of capacity procured via the projects identified above, and the demand scenario that materializes.

It is possible that at further new I(W)PP, with a capacity of around 1000 MW will be pursued for 2013-2014. Before proceeding however, OPWP intends to further review demand projections, and also look at a range of strategic options, considering longer-term fuel issues (see below), the potential for the development of renewable energy resources, as well as the possibilities for enhanced utilization of interconnects.

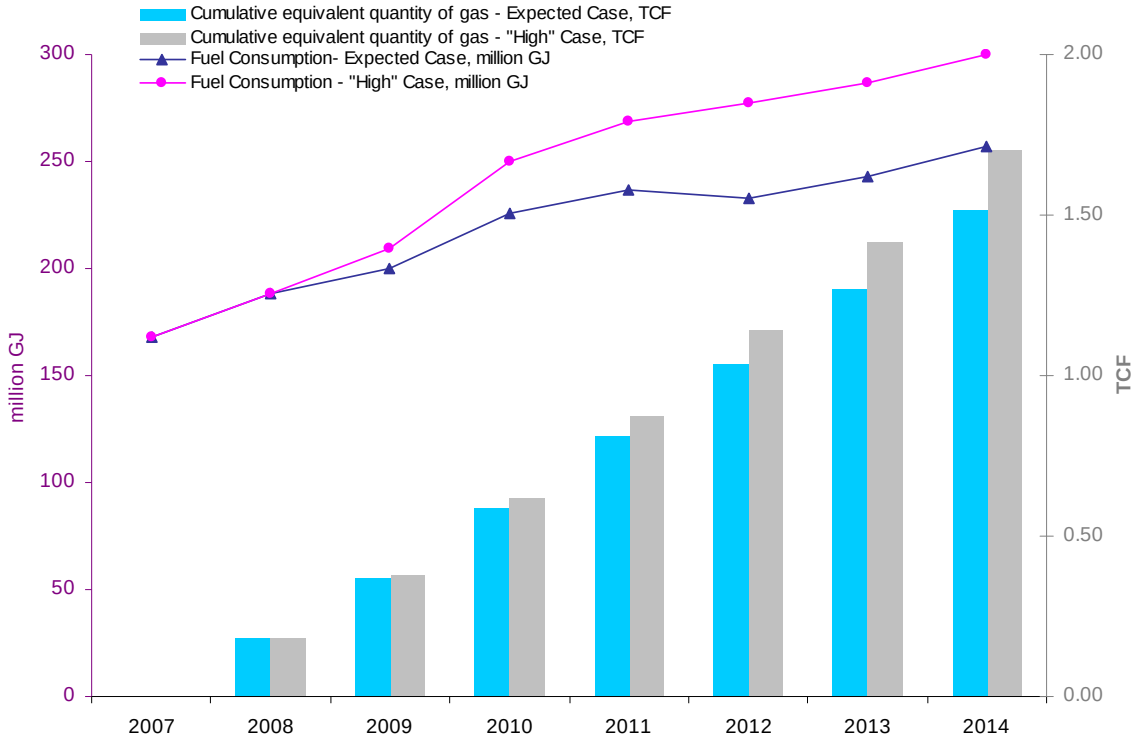
OPWP will provide an update of the anticipated requirements, and its procurement strategy, in respect of the 2013-2014 period in the next 7-Year Statement.

1.9 Fuel Requirements for Power Generation and Water Desalination

The primary fuel resource for the MIS is currently natural gas, supplied to power generation facilities by the Ministry of Oil & Gas. Essentially all MIS power generation and associated desalinated water production in 2007 was fueled by gas, with the total consumption being around 168 million GJ (or 12.5 million Sm^3 per day).

With a continued “all-gas” strategy, and based on the demand projections for energy and desalinated water set out above, the aggregate fuel requirement for power generation and water desalination in the MIS is expected to increase to around 257 million GJ (or 19.1 million Sm^3 per day) by 2014, based on expected demand growth, or to 300 million GJ (or 22.2 million Sm^3 per day) under “high case” demand growth. The cumulative 7-year requirements are 1.5 TCF for the expected demand and 1.7 TCF for the “high-case” demand. The annual build-up of these requirements is shown in Figure 10.

Figure 10: Fuel Requirements – MIS



	2007	2008	2009	2010	2011	2012	2013	2014
For expected demand								
Energy (GWh)	12,480	13,934	15,480	17,930	19,583	21,254	22,468	24,049
Water (million m^3)	88	158	193	207	209	216	222	236
Gas Consumption (million GJ)	**168**	**188**	**200**	**226**	**237**	**233**	**243**	**257**
Gas Consumption (million Sm^3 per day)	*12.5*	*14.0*	*14.8*	*16.8*	*17.5*	*17.2*	*18.0*	*19.1*
Cumulative Gas Consumption (TCF)		0.2	0.4	0.6	0.8	1.0	1.3	1.5
For "high case" demand								
Energy (GWh)	12,480	13,934	16,231	19,897	22,441	25,512	26,726	28,307
Water (million m^3)	88	158	193	207	209	216	222	236
Gas Consumption (million GJ)	**168**	**188**	**209**	**250**	**269**	**277**	**287**	**300**
Gas Consumption (million Sm^3 per day)	*12.5*	*14.0*	*15.5*	*18.5*	*19.9*	*20.5*	*21.3*	*22.2*
Cumulative Gas Consumption (TCF)		0.2	0.4	0.6	0.9	1.1	1.4	1.7

In light of the substantial gas requirements (notwithstanding the focus on increasing fuel-efficiency), the Government has asked OPWP to consider options for diversification away from an "all-gas" strategy, and identify the potential use of other fuels for power generation and water desalination.

Accordingly, OPWP intends to carry out a strategic review during 2008 to examine the options for fuel diversification. OPWP is cognizant however of the possible lead times associated with fuel diversification. It is would be challenging for example to bring a new coal-fired generation plant on line before 2014. In this context, OPWP is in discussions with the Ministry of Oil & Gas to reserve sufficient natural gas for the needs of power generation and water desalination in the nearer term.

SECTION 2 – SALALAH SYSTEM

*The **Salalah System** covers the city of Salalah and surrounding areas in the Governorate of Dhofar, serving around 50,000 electricity customers.*

It currently comprises an integrated generation, transmission and distribution system, owned and operated by Dhofar Power Co. (DPC) pursuant to a Concession Agreement signed with the Government in 2001, along with a single independent generation facility owned and operated by Rural Areas Electricity Co. (RAEC). DPC acts as the electricity supplier within the service area covered by the system, supplying existing and new electricity customers.

The Salalah System presently operates as an isolated system. However, it is anticipated that an interconnect with the power system of Petroleum Development Oman (PDO) will be established by 2009/2010.

A further significant development of the system is expected in 2010/2011 with the addition of a new independent power generation and water desalination facility (the "Salalah IWPP"), providing a substantial increase in power generation capacity as well as (for the first time in Salalah) desalination capacity to meet the requirements of the responsible "water department", the Directorate General of Water in the Office of the Minister of State & Governor of Dhofar.

OPWP's role in the Salalah System is twofold. Firstly, it acts as counter-party to the Concession Agreement, in place of the Government. And secondly, it performs a similar role as in the MIS, procuring additional power to meet the requirements of the electricity supplier (that are not covered by its own generation), and wherever feasible co-procuring desalinated water to meet the needs of the water department.

2.1 Demand for Electricity

Expected Demand

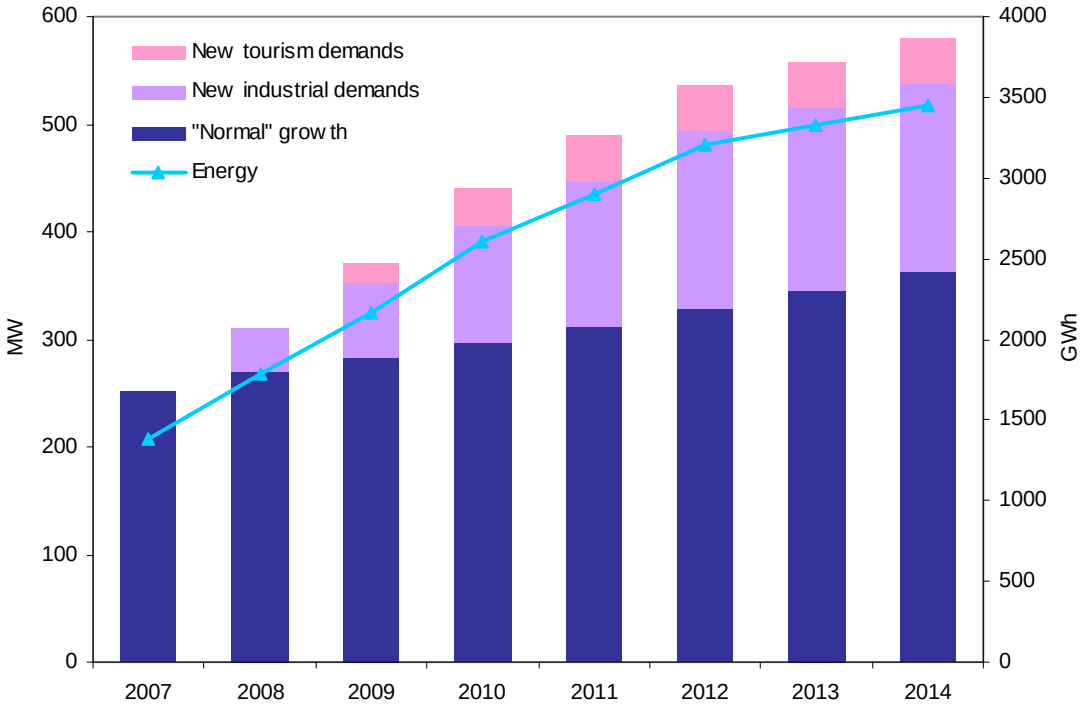
The maximum power demand in the Salalah System is expected to grow from 251 MW in 2007 to 580 MW by 2014, an average increase of around 13% or 50 MW per year. Annual energy demand is expected to grow from 1.4 TWh in 2007 to 3.5 TWh in 2014, an average annual growth of around 14%.

As for the Main Interconnected System, this growth is the product of:

- continuing underlying "normal" growth from increasing population and number of households, rising personal incomes and general economic development;
- a major increase in demand from new industrial projects, in the case of the Salalah System concentrated in particular around the new Salalah Free Zone; and
- a major increase in demand from new tourism related developments.

The annual build up of expected power and energy demands to 2014, and the contribution to the growth of each of the main drivers identified above, are shown in Figure 11.

Figure 11: Expected Power and Energy Demand – Salalah System



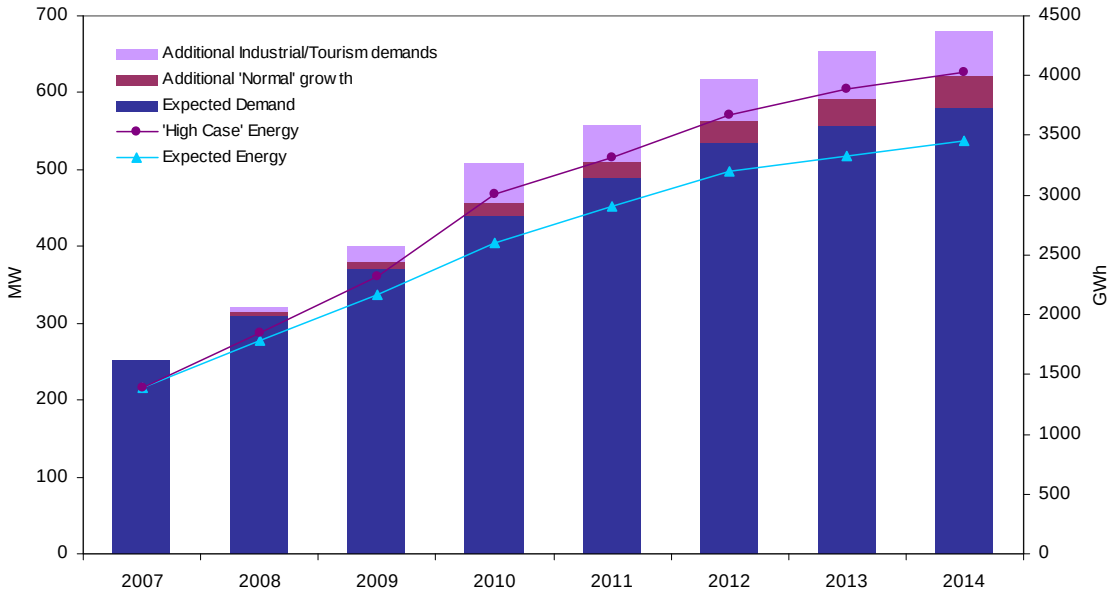
	2007	2008	2009	2010	2011	2012	2013	2014	Average annual growth
Expected Max Demand (MW)	**251**	**310**	**371**	**441**	**489**	**536**	**558**	**580**	12.7%
Including the growth from:									
"Normal" growth		19	33	47	62	78	95	113	
New industrial demands		40	70	108	135	166	171	175	
New tourism demands			18	36	42	42	42	42	
Change from 2007 Statement		*-14*	*-45*	*-15*	*-4*	*+6*	*-9*	*n/a*	
Energy (GWh)	**1,387**	**1,787**	**2,165**	**2,602**	**2,905**	**3,203**	**3,328**	**3,455**	13.9%

The expected demand is broadly in line, over medium term, with that projected in the 7-Year Statement for 2007-2013, with just a moderate reduction in the near-term, reflecting a re-assessment of the likely timing of the build up of new industrial and tourism demands. The impact of integrating some additional rural areas into the Salalah System (included from 2009 in the previous Statement) has been removed from the expected demand projection, as it is now considered most likely, based on a re-assessment of the relevant demands, that these areas will be served by local generation provided by RAEC for the foreseeable future.

"High Case" Demand

As for the MIS, a "high case" demand projection has been developed for the Salalah System, reflecting a plausible scenario of higher than expected growth. In the case of the Salalah System, this scenario is seen as potentially adding an additional 100 MW of peak demand by 2014, as shown in Figure 12.

Figure 12: "High Case" Power and Energy Demand – Salalah System



	2008	2009	2010	2011	2012	2013	2014	Average annual growth
"High Case" Max Demand (MW)	**322**	**401**	**508**	**558**	**616**	**654**	**680**	15.3%
Including:								
Expected Demand	310	371	441	489	536	558	580	
Additional "Normal" Growth	5	10	16	21	28	35	42	
Additional Industrial/Tourism Demands	7	20	51	48	52	61	58	
"High Case" Energy (GWh)	**1,851**	**2,323**	**3,006**	**3,317**	**3,677**	**3,887**	**4,023**	16.4%

Exports to Interconnected Systems

It is anticipated that an interconnect between the Salalah System and the PDO power system (via a 132 kV link between Thumrait and Harweel) will be established by 2009/2010.

In addition to providing reliability benefits (through the sharing of generation reserves), this interconnect could provide the opportunity for the "commercial" export of power to the PDO system,

which would potentially add to the firm demand to be served by generation resources in the Salalah System.

For the time being, however, no definite arrangements have been agreed for commercial exports and accordingly the current demand projections (presented above) include the native power demands of the Salalah System only.

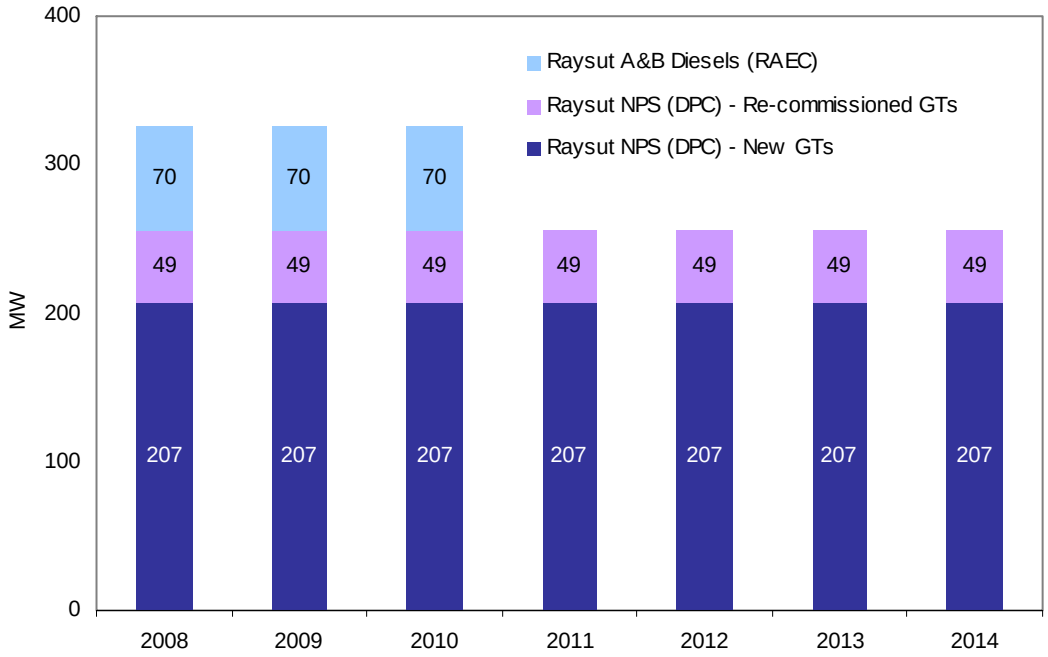
2.2 Power Generation Resources

Power generation capacity in the Salalah System currently includes the gas-fired new power station (NPS) at Raysut, owned and operated by DPC, and the diesel-fired Raysut A&B stations, owned and operated by RAEC.

The NPS comprises six new gas turbine units installed in 2003, together with two older gas turbine units acquired from the Government and re-commissioned during 2007. The combined capacity of these units is 256 MW. The Raysut A&B stations comprise a total of 14 diesel engines, with a combined capacity of around 70 MW. This capacity is currently contracted for 2008 only, although it is expected to remain available to the system until 2010.

A summary of these resources (rated at 35°C ambient, corresponding to peak summer conditions in Salalah) is provided in Figure 13.

Figure 13: Generation Capacity – Salalah System



Salalah System	2008	2009	2010	2011	2012	2013	2014
Generation capacity (MW)							
Raysut NPS (DPC)	256	256	256	256	256	256	256
- New Gas Turbines	*207*	*207*	*207*	*207*	*207*	*207*	*207*
- Re-Commissioned Gas Turbines	*49*	*49*	*49*	*49*	*49*	*49*	*49*
Raysut A&B Diesels (RAEC)	70	70	70				
Total	**326**	**326**	**326**	**256**	**256**	**256**	**256**

2.3 Additional Power Generation Requirements

As for the MIS, OPWP is required to ensure the adequacy of generation resources to meet future power demands in the Salalah System and, further, to ensure that electricity customers in the Salalah System receive services generally of equivalent quality as those received by customers in the MIS.

This requires, as a minimum, that sufficient capacity is installed on the Salalah System to cover each year's expected peak demand and that the 24 hour LOLH criterion stipulated by the Authority for Electricity Regulation, Oman in respect of the MIS be similarly complied with in the Salalah System.

Based on the demand projection and generation capacities identified above, LOLH excesses (above the 24 hour limit) are expected in every year from 2008, as shown in Figure 14.

Figure 14: Potential Generation Shortfall and LOLH – Salalah System

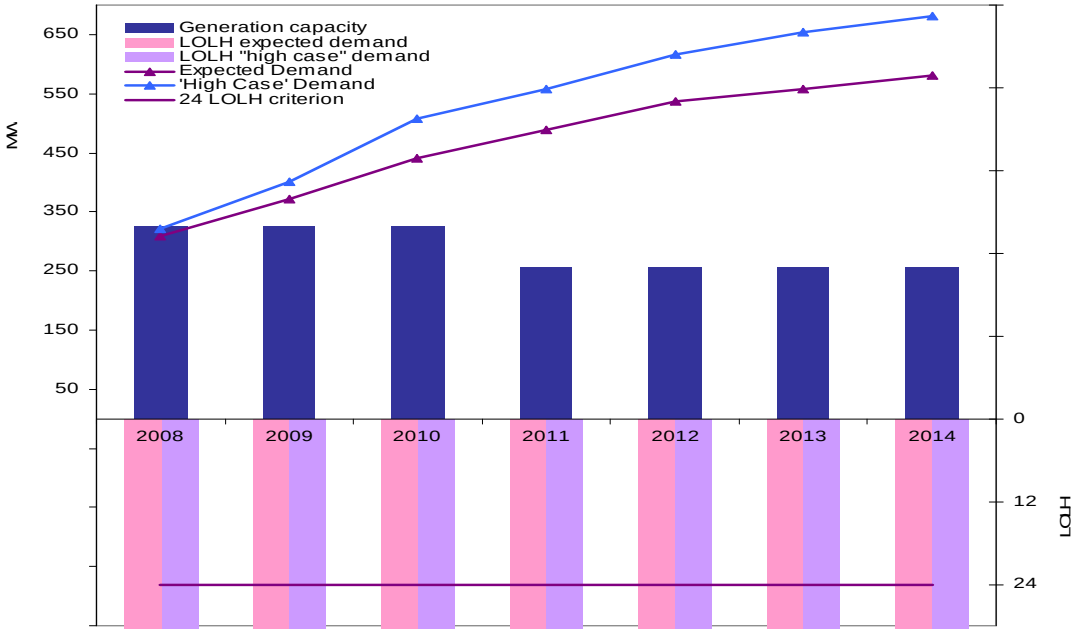
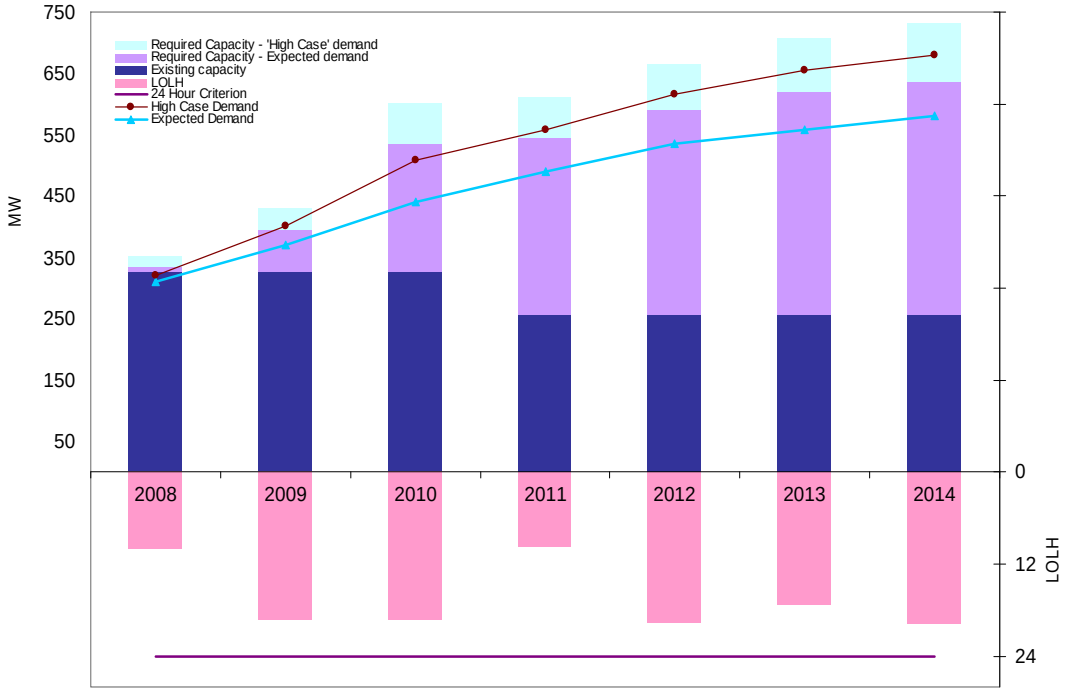


Figure 14 illustrates the need for OPWP to contract for additional generation resources for the Salalah System. OPWP has calculated that it will need to contract for a minimum of around 380 MW of firm on-peak generation by 2014, and a further 105 MW in the "high case" demand scenario. The annual build up of these requirements is shown in Figure 15.

Figure 15: Additional Generation Required – Salalah System



	2008	2009	2010	2011	2012	2013	2014
Minimum Additional Generation Required (MW)							
For expected demand	10	70	140	290	340	360	380
For "high case" demand	25	105	210	360	425	460	485

Based on the similar requirements identified in the 2007-2013 7-Year Statement, OPWP launched a competition during 2007 for the procurement of 370-430 MW of power generation capacity (plus desalinated water) via a new green-field project, referred to as the "Salalah IWPP". The Request for Proposals (RFP) for the project has been issued to 8 pre-qualified bidders and bids are due to be received in the second quarter of 2008. The commercial agreements are expected to be concluded with the successful bidder by the end of 2008 and the project is expected to be commissioned and the capacity fully available for the peak season of 2011.

Details of OPWP's strategy in respect of additional resource needs (including prior to the availability of the Salalah IWPP in 2011) are provided in section 2.8 below.

2.4 Demand for Desalinated Water

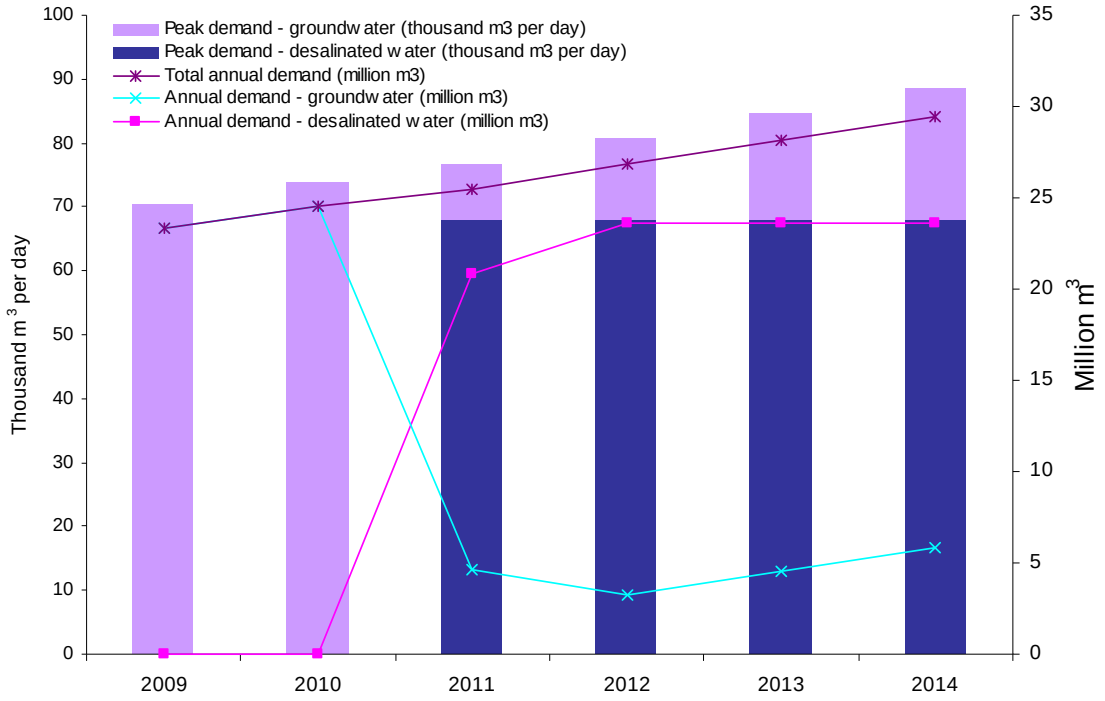
The responsible water department in the Dhofar region, the Directorate General of Water in the Office of the Minister of State & Governor of Dhofar, has provided projections for total potable water demand in the Salalah area (including the Wilayats of Salalah, Taqa and Mirbat) from 2009 to 2012.

These projections show an annual demand of 23.4 million m^3 in 2009 rising to 26.8 million m^3 by 2012, at an average annual growth rate of around 5%. At this growth rate, the demand may be expected to reach 29.5 million m^3 by 2014. Based on these annual demands, OPWP has estimated that the "peak demand" for water will increase from around 70,000 m^3 per day in 2009 to around 89,000 m^3 per day in 2014.

The water department has also advised OPWP of a requirement for 68,000 m^3 per day (15 MIGD) of desalination capacity, and has indicated that any water requirements not met by this capacity would be covered by local groundwater resources.

The expected demands for water (total and desalinated) are summarized in Figure 16.

Figure 16: Expected Water Demand – Salalah



	2009	2010	2011	2012	2013	2014
Peak demand (*thousand m^3 per day*)						
Total water	**70**	**74**	**77**	**81**	**85**	**89**
Desalinated water			68	68	68	68
Difference to be met by groundwater resources	*70*	*74*	*9*	*13*	*17*	*21*
Total annual demand (*million m^3 per year*)						
Total water	23.4	24.5	25.5	26.8	28.1	29.5
Desalinated water			20.8	23.6	23.6	23.6
Difference to be met by groundwater resources	*23.4*	*24.5*	*4.7*	*3.2*	*4.5*	*5.9*

2.5 Water Desalination Resources

There is presently no desalination capacity in the Salalah area – water demands have to be met entirely from local groundwater resources.

The Salalah IWPP project currently under bidding (see above) will provide 68,000 m^3 per day (15 MIGD) of new desalination capacity, starting in 2011.

2.6 Additional Water Desalination Requirements

The water department has indicated that, within the current planning horizon, available groundwater resources are expected to be sufficient to cover the difference between total water demands and the output of the Salalah IWPP.

Accordingly, no additional desalination capacity requirements are foreseen in the period to 2014.

2.7 Opportunity for Combining Power Generation and Water Desalination

The decision to combine the procurement of power generation and desalination capacity in the Salalah IWPP was based on anticipated benefits in terms of:

- sharing of common infrastructure, in particular sea-water intake and outfall facilities, required by both power generation and water desalination;
- potential techno-economic advantages from combined power generation and desalination processes; and
- general economies of scale in development, financing and construction costs.

It is believed that these benefits will result in the most economical procurement of the 370-430 MW of power generation and 68,000 m^3 (15 MIGD) of desalination capacity to be provided by the Salalah IWPP.

In respect of the additional power requirements identified in advance of the Salalah IWPP, there are not seen to be any practicable opportunities for co-procurement of desalinated water.

And with no additional desalination requirements foreseen for the time being beyond those covered by the Salalah IWPP, the opportunities for benefiting from co-procurement in relation to any additional power procured for 2012-2014 (to meet “high case” demands) may be limited. This matter will be reviewed however in future planning and prior to finalizing any procurement strategy in respect of 2012-2014.

2.8 Procurement Strategy for Power Generation and Water Desalination

As described above, a procurement process for the Salalah IWPP, which will provide 370-430 MW of power generation and 68,000 m^3 (MIGD) of desalination capacity from 2011, is presently ongoing.

However, based on the requirements identified in section 2.3 above, further additional power generation is required, in the 2008-2010 period and also potentially (in the "high case" demand scenario) in the 2012-2014 period. OPWP's present thinking in relation to the procurement of these requirements is summarized below.

2008 **Requirement: 10-25 MW**

OPWP has requested proposals from DPC and RAEC for the provision of short-term temporary generation during summer 2008, based on diesel engine rental. A final decision in this regard will be taken during the first quarter of 2008.

2009-2010 **Requirement: 70-105 MW (2009) / 140-210 MW (2010)**

The following options are currently being pursued and/or considered by OPWP:

- fast-track completion of interconnect with PDO system, tapping surplus generation resources available in the PDO system and/or the MIS (potential capacity – around 100 MW);
- relocation of gas turbine units from Wadi Al-Jizzi power plant to Salalah, by amendment of the existing Power Purchase Agreement with Wadi Al-Jizzi Power Co. (potential capacity – around 65 MW);
- enhancement of the capacity of the Raysut NPS gas turbines by DPC (potential capacity – around 30 MW);
- temporary generation based on gas or diesel engine rental (potential capacity – around 100 MW); and
- "early power' from Salalah IWPP – the RFP requests offers for provision of power starting June 2010, based on phased commissioning of plant (potential capacity – 200 MW).

OPWP expects to finalize its strategy in respect of the above by mid-2008.

2012-2014 **Requirement: 0-115 MW**

The requirement in this period will depend on the exact amount of capacity procured via the Salalah IWPP, the amount of any re-located or enhanced capacity (see above) that remains available to the system, and the demand scenario that materializes. Based on the current ("high case") demand projections, the

maximum potential requirements during this period range from 55 MW in 2012 to 115 MW by 2014.

As for the MIS, OPWP's medium to longer term procurement strategy will combine the need to secure required capacity with the aim of improving fuel efficiency.

In this context, OPWP is currently studying with DPC the possibility of converting some of the Raysut NPS gas turbines to combined-cycle configuration. If implemented, this option could both improve fuel efficiency and provide up to around 100 MW of additional capacity within the 2012-2014 timeframe, deferring the need for any other new capacity.

There are also some possibilities for the development of renewable energy resources (in particular wind power) in the Salalah area, which may be pursued for the 2012-2014 timeframe. This could significantly reduce fuel consumption, though it is uncertain to what extent any such resources would provide firm generation, and reduce the requirement for traditional generation capacity.

All medium and longer term options will be studied in the context of the interconnected Salalah-PDO-MIS system, seeking to maximize the benefits of interconnection.

OPWP will provide an update of the anticipated requirements and its procurement strategy in respect of the 2012-2014 period in the next 7-Year Statement.

2.9 Fuel Requirements for Power Generation and Water Desalination

The primary fuel resources for the Salalah System are currently natural gas, supplied by pipeline to the Raysut NPS by the Ministry of Oil & Gas, and petroleum diesel delivered by road tankers to the Raysut A&B stations. The total fuel consumption for power generation in 2007 was around 16.7 million GJ, comprising 16.55 million GJ (or around 1.24 million Sm^3 per day) of gas and 0.15 million GJ (or 4.4 million liters) of diesel.

Both gas and diesel consumption are expected to increase during the 2008-2010 period with rising power demand, with the exact quantities depending on the demand scenario and the specific generation options pursued in respect of the additional requirements identified in section 2.8. For the expected demand (and with additional generation partly on gas and partly on diesel during 2008-2010), total fuel consumption is expected to reach 31.5 million GJ in 2010, with gas consumption of 31 million GJ (2.3 million Sm^3 per day) and diesel consumption of 0.5 million GJ (16.9 million liters). In the "high case" demand scenario, the total fuel consumption could be expected to reach 36.2 million GJ in 2010, with gas consumption of 33.8 million GJ (2.5 million Sm^3 per day) and diesel consumption of 2.4 million GJ (68 million liters).

The primary fuel for the Salalah IWPP will be gas, and following completion of the plant in the 2011, all generation in the Salalah System is expected to be gas-fueled through to 2014. However, with the utilization of fuel efficient, combined-cycle gas turbine (CCGT) technology, the Salalah IWPP is expected to initially *reduce* gas consumption, as well as total fuel consumption, in the Salalah System

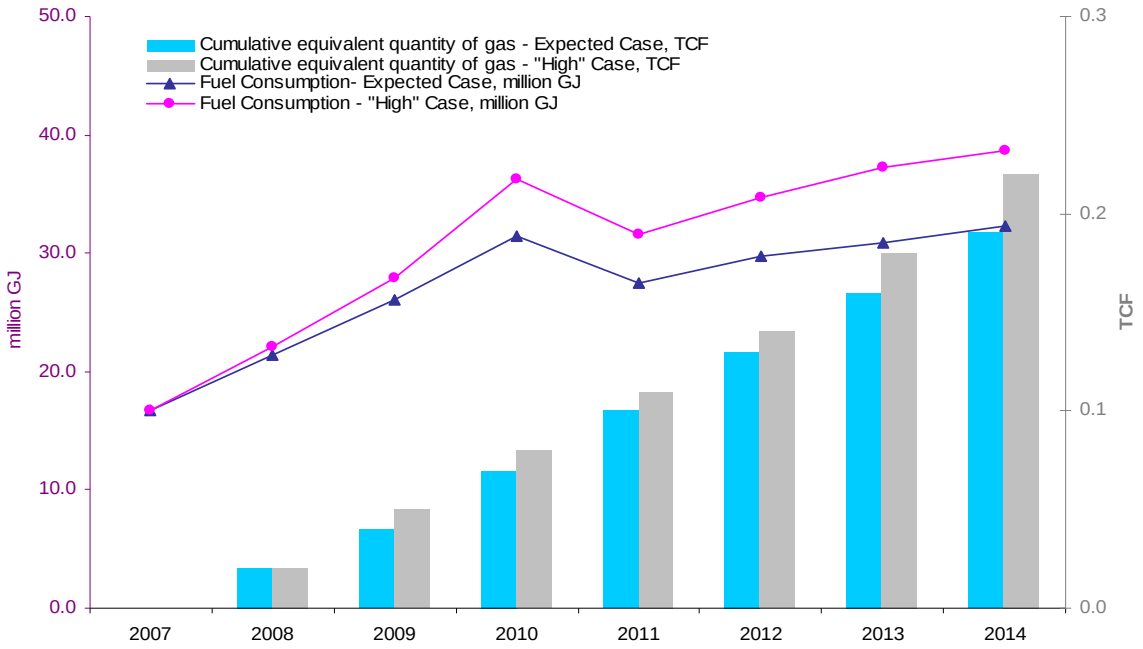
(as the Salalah IWPP generation will displace a significant amount of generation from the relatively less fuel-efficient open-cycle gas turbine (OCGT) Raysut NPS).

In the expected demand scenario, for example, gas consumption is reduced by some 3.5 million GJ, from 31 million GJ (2.30 million Sm^3 per day) in 2010 to 27.5 million GJ (2.05 million Sm^3 per day) in 2011 (whilst the corresponding total fuel consumption is reduced by a further 0.5 million GJ), notwithstanding the year over year demand growth as well as the introduction of desalination.

With continuing demand growth from 2012 to 2014, the fuel requirements start rising again and are projected to reach 32.3 million GJ (2.40 million Sm^3 per day) by 2014 for the expected demand, or 38.6 million GJ (2.86 million Sm^3 per day) in the "high case" demand scenario. These amounts may be reduced to some extent if either of the fuel-saving options mentioned above (conversion of Raysut NPS, renewable resources) were to be implemented in the 2012-2014 timeframe. In all cases, though, around 0.2 TCF of gas will be required for the 7 year period from 2008 to 2014.

The projected annual fuel requirements, for the expected and "high case" demand scenarios, are shown in detail in Figure 17.

Figure 17: Fuel Requirements – Salalah System



	2007	2008	2009	2010	2011	2012	2013	2014
For expected demand								
Energy (GWh)	1,387	1,787	2,165	2,602	2,905	3,203	3,328	3,455
Water (million m^3)	-	-	-	-	20.8	23.6	23.6	23.6
Total Fuel Consumption (million GJ)	**16.7**	**21.4**	**26.0**	**31.5**	**27.5**	**29.7**	**30.9**	**32.3**
Gas Consumption (million GJ)	***16.55***	***20.7***	***25.4***	***31.0***	***27.5***	***29.7***	***30.9***	***32.3***
Gas Consumption (million Sm^3 per day)	*1.24*	*1.54*	*1.89*	*2.30*	*2.05*	*2.21*	*2.30*	*2.40*
Diesel Consumption (million GJ)	***0.15***	***0.7***	***0.6***	***0.5***	-	-	-	-
Cumulative Gas Consumption (TCF)		0.02	0.04	0.07	0.10	0.13	0.16	0.19
Diesel Consumption (million liters)	*4.4*	*19*	*17*	*15*	-	-	-	-
For "high case" demand								
Energy (GWh)	1,387	1,851	2,323	3,006	3,317	3,677	3,887	4,023
Water (million m^3)	-	-	-	-	20.8	23.6	23.6	23.6
Total Fuel Consumption (million GJ)	16.7	**22.1**	**27.9**	**36.2**	**31.6**	**34.7**	**37.2**	**38.6**
Gas Consumption (million GJ)	***16.55***		*26.5*	*33.8*	*31.6*	*34.7*	*37.2*	*38.6*
Gas Consumption (million Sm^3 per day)	*1.24*	*1.57*	*1.97*	*2.52*	*2.35*	*2.58*	*2.76*	*2.86*
Cumulative Gas Consumption (TCF)		0.02	0.05	0.08	0.11	0.14	0.18	0.22
Diesel Consumption (million GJ)	*0.15*	*1.0*	*1.4*	*2.4*	-	-	-	-
Diesel Consumption (million liters)	*4.4*	*28*	*39*	*68*	-	-	-	-