

ANNUAL REPORT 2016



هيئة تنظيم الكهرباء - عمان
AUTHORITY FOR ELECTRICITY REGULATION, OMAN



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**His Majesty
Sultan Qaboos bin Said**



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CHAIRMAN'S FOREWORD



On behalf of the Authority, it is with great pleasure that I present our Annual Report for 2016. The electricity and water sector sustained its growth and development since the restructuring. The main highlights of 2016 were as follows:

- i. The number of electricity Customer accounts in the Sultanate increased by 73,245, or 7.9% 927,184 in 2014 to 1,000,429. Residential customers accounted for 71% of the increase in accounts. Since the 2005 market restructuring the number of electricity accounts increased by 470,178 or 88.7%.
- ii. Electricity Supply in 2016 reached 30.4 TWh, 5% higher than in 2015 and 220% higher than in 2005;
- iii. The Authority's measure of electricity Intensity (MWh per account) reached 28.3 in 2016, lower than 2015 by 2.2% and 58% higher than in 2005. Increasing intensity is an important driver of electricity demand that has implications for costs and subsidy. If the 1,074,597 registered accounts in 2016 had the same average intensity as in 2005, electricity supply in 2016 would have been 36%, or 11.07 TWh lower with corresponding reductions in costs and subsidy;
- iv. Sector gas use decreased by 3.9% in 2016 while gross electricity and water production increased by 4.4% and 18.3%, respectively due to efficient use of gas. RAEC consumed about 265,204,000 litres of diesel in 2016 to support increases in electricity and water production of 9% and 22%, respectively;
- v. Technical and non-technical losses accounted for 9.2% of total units entering electricity systems in the Sultanate in 2016, a decrease on reported losses of 10.0% in 2015. MIS losses decreased from 10.0% in 2015 to 9.2% in 2016, RAEC losses increased from 10.7% in 2015 to 14.7% in 2016, and Dhofar Power System losses increased slightly from 12.2% in 2015 to 12.7% in 2016;
- vi. Total electricity and water sector employment (Direct and Contractor employees) increased by 8.5% in 2016, reflecting a 0.6% decrease in Direct employment (from 2,888 to 2,870) and a 13% increase in Indirect employment (from 5,860 to 6,623). The 2016 overall electricity and water sector Omanisation rate was 65%;
- vii. The Authority issued three new Customer Complaint Determination in 2016, and resolved 72 outstanding complaints on the basis of policy precedents established in 69 previously issued Determinations;
- viii. The electricity sector benefited from 510.5 million Rial Omani of support from the Ministry of Finance in 2016: 389.9 million Rial Omani of MIS subsidy, 78.0 million Rial Omani of RAEC subsidy and 42.6 million Rial Omani of Dhofar Power System subsidy.
- ix. Electricity licensees approved 620 electricity related projects in 2016 with a total value of OMR 374.1 million, these projects will support the provision of electricity services in all of the Sultanate's regions; and



- x. The cost of regulating the electricity and related water sector in 2016 was around OMR 2.5 per Customer account, less than one tenth of one baiza per kWh Supplied and less than 0.25% of total electricity and related water sector turnover, metrics we believe compare favourably to international benchmarks of regulatory costs.

Members would particularly like to acknowledge with thanks the hard work of Authority staff who contributed to and are responsible for the activities and work described in this report. Members and staff of the Authority express their sincere gratitude to His Majesty Sultan Qaboos bin Said for his vision, guidance and leadership and to His Majesty's government for their continuing support.

Dr. Amer Bin Saif Al Hinai
Chairman
Authority for Electricity Regulation, Oman

Electricity and Water Sector Market Structure

1. Main Interconnected System



2. Rural Systems



3. Dhofar Power System



Sources: MIS & Dhofar 2016 Capacities from PWP 7-Year Statement (Issue 11), other data AER

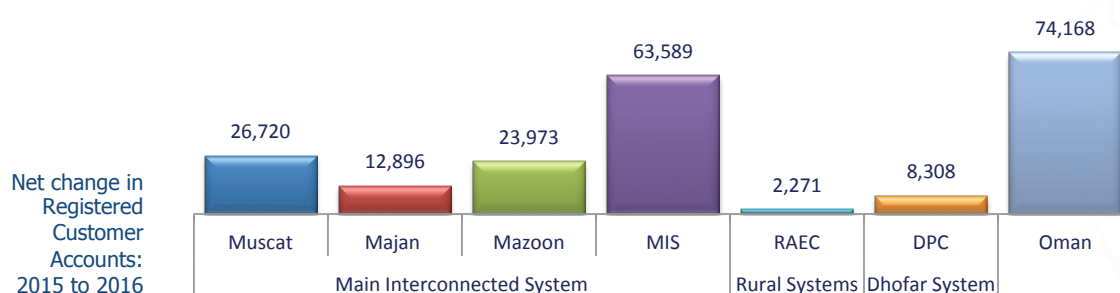
The Sector Law designates certain activities as regulated activities and requires persons seeking to undertake such activities to be authorised by the Authority to do so. Further details of the new market structure and its regulation are available at www.aer-oman.org.

Electricity & Water Sector Activity and Statistics

Customer Accounts: 2015 and 2016

The number of registered electricity customer accounts in the Sultanate increased by 7.4% in 2016 from 1,000,429 in 2015 to 1,074,597. The MIS accounted for 85.7% of the increase in accounts, greater than what was reported in 2015 (85.2% in 2015), RAEC accounted for 3.1% of the increase, same as reported in 2015 (3.1% in 2015) and DPC for 11.2% of the increase (11.7% in 2015). Please refer to Figure 1 below and Table 1 of Annex C for further details.

Figure 1: Registered Customer Accounts by Company: 2015 & 2016



	Muscat	Majan	Mazoon	MIS	RAEC	DPC	Oman
2015 Accounts	309,803	198,005	366,716	874,524	33,187	92,718	1,000,429
2016 Accounts	336,523	210,901	390,689	938,113	35,458	101,026	1,074,597
net change in Accounts	26,720	12,896	23,973	63,589	2,271	8,308	74,168
% change in Accounts	8.6%	6.5%	6.5%	7.3%	6.8%	9.0%	7.4%

Source: Company returns

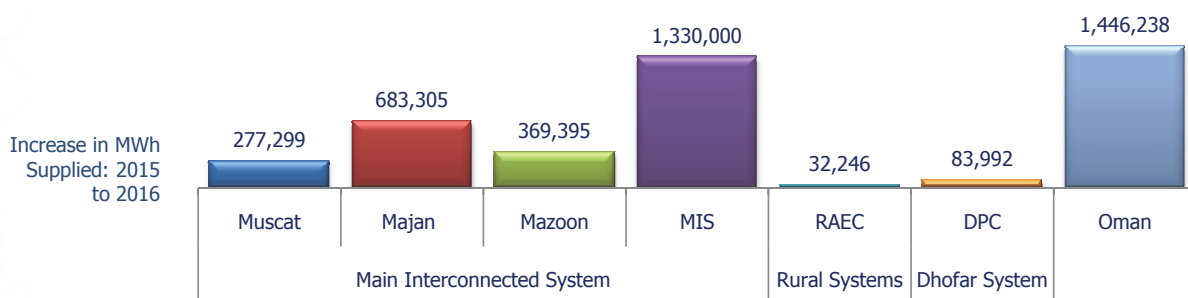
For the Sultanate as a whole, Residential customers accounted for 71.6 %of the 74,168 increase in accounts and Commercial customers for 25.6 % of the increase.

Residential customers accounted for 74.5% of all customer accounts in 2016.

Electricity Supply: 2015 and 2016

Total electricity supply in the Sultanate increased by 1.4 TWh in 2016 from 28.9 TWh in 2015 to 30.4 TWh, an increase of 5.0% following the 14.9% increase in 2015. MIS supply increased by 5.2% (or 1.3TWh) in 2016, accounting for 92.0% of the total (1.4 TWh) growth in supply. RAEC supply was 3.9% higher than in 2015, reflecting growth in supply to Government, Industrial and Commercial customers. DPC supply growth of 3.3% in 2016 was lower than the 11.0% increase in 2015. See Figure 2 below and Table 2 of Annex C for further details.

Figure 2: Electricity Supply by Company: 2015 & 2016



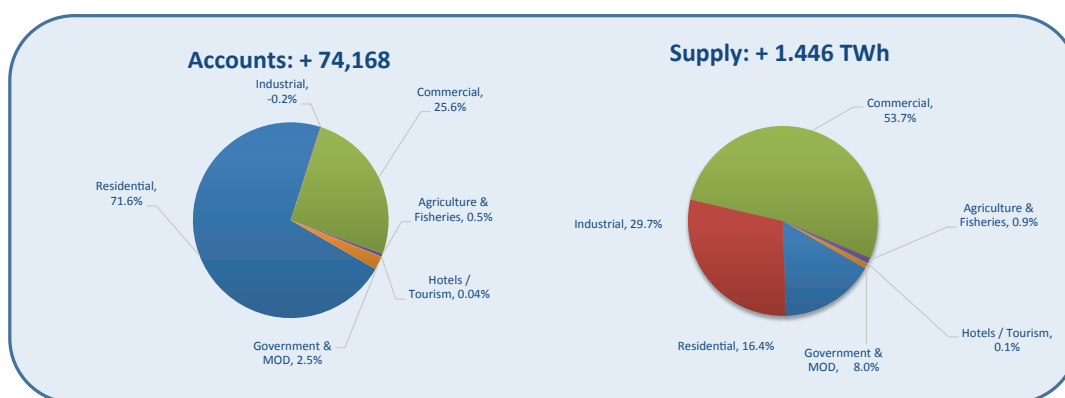
	Muscat	Majan	Mazoon	MIS	RAEC	DPC	Oman
2015 MWh	10,103,710	7,858,460	7,550,441	25,512,611	816,420	2,583,442	28,912,474
2016 MWh	10,381,009	8,541,766	7,919,836	26,842,611	848,666	2,667,434	30,358,712
<i>net change in MWh</i>	<i>277,299</i>	<i>683,305</i>	<i>369,395</i>	<i>1,330,000</i>	<i>32,246</i>	<i>83,992</i>	<i>1,446,238</i>
% change in MWh	2.7%	8.7%	4.9%	5.2%	3.9%	3.3%	5.0%

Source: Company returns

Residential customers accounted for 46.1% of total supply in 2016, compared to a 55.2% share in 2005.

Figure 3 compares the 2016 increases in accounts and supply by customer category. Residential customers accounted for 71.6% of the 74,168 increase in accounts, but for just 16.4% of the 1.4 TWh increase in Supply. Commercial customers accounted for 25.6% of the accounts increase and for 53.7% of the Supply increase while, Industrial customers accounted for 0.1% of the accounts increase and 29.7% of the increase in Supply.

Figure 3: 2016 Increases in Accounts & Supply by Customer Category



The structure of electricity demand in Oman continues to change as the rate of growth in supply to Industrial and Commercial customers exceeds that to other customer categories. Industrial and Commercial customers accounted for 38.4% of total supply in 2016, up from 23% in 2005. Supply to Majan's Commercial and Industrial customers accounted for 58% of Majan's total 2016 supply, compared to just 21% in 2005, 40% in 2010, and 50% in 2011.

Figure 4 presents electricity Supply by tariff category for each of the three market segments in 2015 and 2016. Figure 5 presents registered customer accounts by tariff category & system in 2015 and 2016.



Figure 4: Electricity Supply by Tariff Category & System - 2015 & 2016

Category	Main Interconnected System			RAEC Rural Systems			Dhofar Power System		
	2015 MWh	2016 MWh	% Change	2015 MWh	2016 MWh	% Change	2015 MWh	2016 MWh	% Change
Residential	12,339,571	12,527,033	2%	401,818	400,437	0%	1,015,575	1,067,331	5%
Industrial	4,176,110	4,607,567	10%	44,469	47,467	7%	502,840	497,695	-1%
Commercial	5,092,048	5,817,817	14%	125,672	132,921	6%	518,219	562,457	9%
Agriculture & Fisheries	340,845	351,415	3%	29,849	32,833	10%	9,095	8,962	-1%
Hotels / Tourism	28,872	31,381	9%	29,378	28,829	-2%	2,371	2,233	-6%
Government	3,326,616	3,280,957	-1%	155,883	172,641	11%	418,792	408,770	-2%
Ministry of Defence	208,548	226,442	9%	29,352	33,539	14%	116,550	119,988	3%
Totals	25,512,611	26,842,611	5%	816,420	848,666	4%	2,583,442	2,667,434	3%

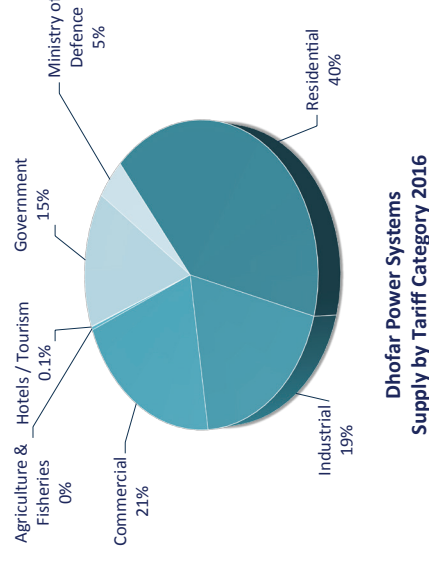
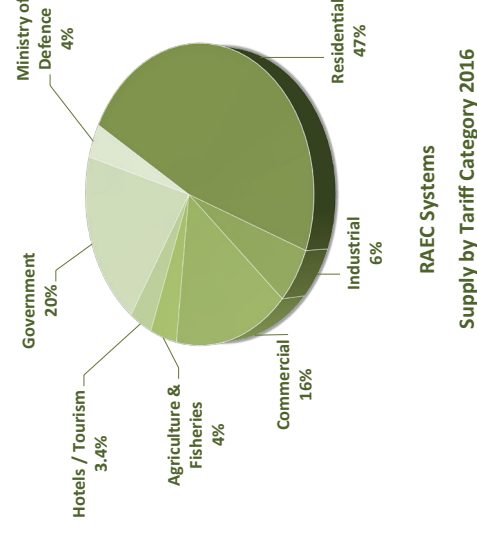
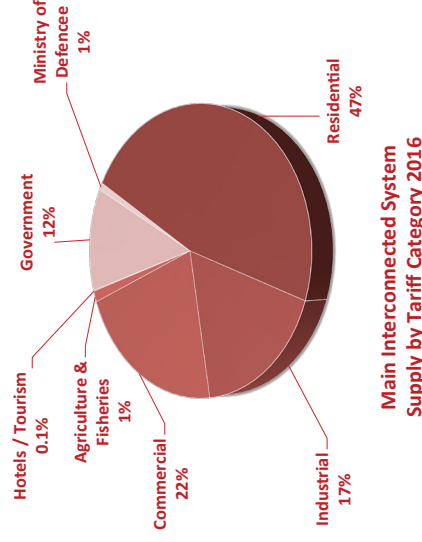
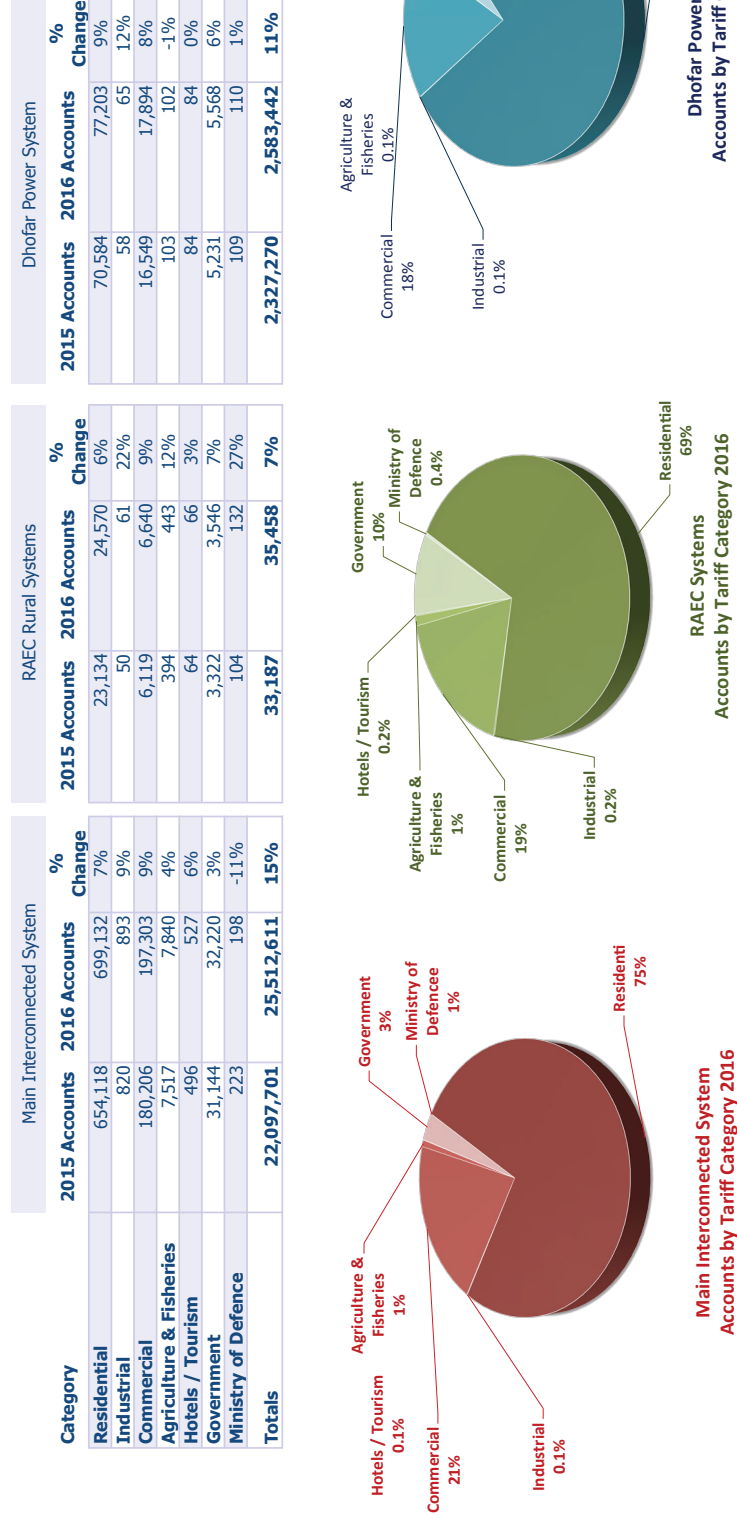


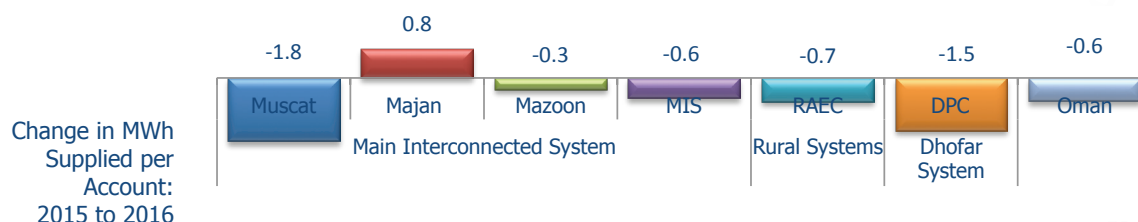
Figure 5: Registered Customer Accounts by Tariff Category & System - 2015 & 2016



Electricity Supply per Account: 2015 & 2016

Electricity intensity (MWh per account) decreased by 2.2% in 2016, from 28.9 in 2015 to 28.3 MWh per account, reflecting an 7.4% increase in total registered accounts compared to a (5)% in supply during the year. MIS customers registered a 1.9 % decrease, RAEC customers a 2.7% decrease and DPC customers a 5.2% decrease. Please refer to Figure 6 and Table 3 of Annex C for further details.

Figure 6: MWh Supplied per Registered Account: 2015 & 2016

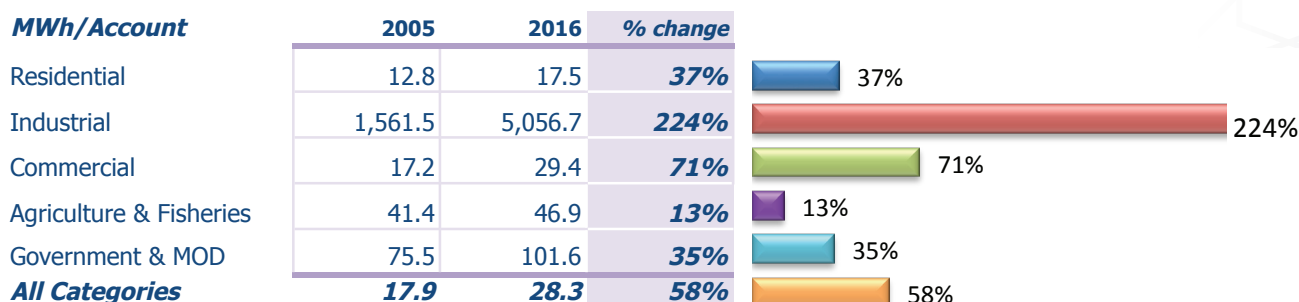


	Muscat	Majan	Mazoon	MIS	RAEC	DPC	Oman
2015 MWh Supply/per Acct	32.6	39.7	20.6	29.2	24.6	27.9	28.9
2016 MWh Supply/per Acct	30.8	40.5	20.3	28.6	23.9	26.4	28.3
net change MWh S/per Acct	-1.8	0.8	-0.3	-0.6	-0.7	-1.5	-0.6
% change in MWh S/per Acct	-5.4%	2.0%	-1.5%	-1.9%	-2.7%	-5.2%	-2.2%

Source: Company returns

The decrease in electricity intensity reflects the market reduction in supply growth during 2016, namely to Industrial and Government customers and reverses a trend of sustained and significant growth over the past decade. Figure 7 shows that between 2005 and 2016 the average electricity intensity of all customers increased by 58% with significant variation in intensity changes across customer categories.

Figure 7: Changes in Electricity Intensity between 2005 and 2016



The 224% increase in Industrial customer intensity reflects increased supply to a relatively small number of new Industrial customers who are large consumers of electricity. Industrial customers actually account for a smaller proportion of the overall increase in intensity shown in Figure 6 than Residential and Commercial customers, whose intensity in 2016 was 37% and 71% higher, respectively, than in 2005 and who accounted for 67.6% of total 2016 Supply, compared to the 17% share of Industrial customers.

Increasing intensity is an important driver of electricity demand that has implications for costs and subsidy. If the 1,074,597 registered accounts in 2016 had the same average intensity as in 2005, electricity supply in 2016 would have been 36% or 11.07 TWh lower with corresponding reductions in costs and subsidy.

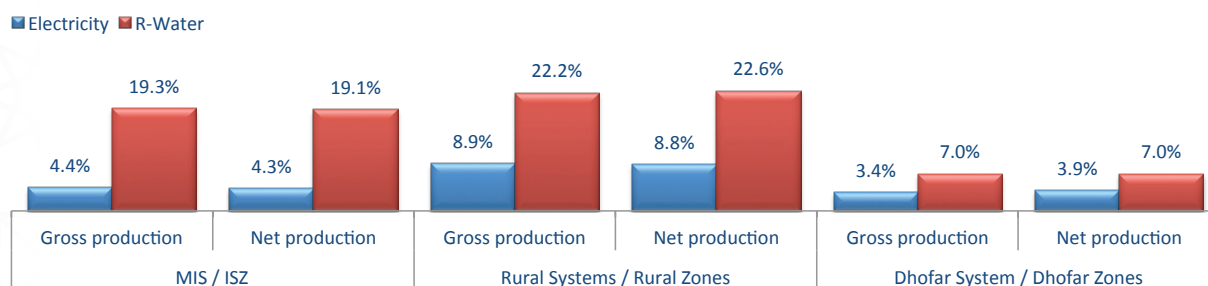
The Authority does not consider intensity increases of this magnitude to be sustainable and believes the recent introduction of Cost-Reflective Tariffs (for large Industrial, Commercial and Government customers) coupled with the implementation of measures to improve energy efficiency will help to reduce the electricity intensity of all customers.

Electricity and Water Production: 2015 & 2016

2016 gross electricity production of 34.2 TWh was 4.4% higher than in 2015. The 33.6 TWh of net electricity generation (including PWP and RAEC purchases) was 4.4% higher than in 2015. Both, gross and net water production increased by 18.3% and 18.1% (to 295.2 million m³ and 290.8 million m³ respectively). Please refer to Figure 8 and Table 6 of Annex C for further details.

Figure 8: Electricity & Water Production by System & Zones: 2015 & 2016

% Changes in production: 2015 to 2016



System	Item	Electricity GWh			Water '000 m3		
		2015	2016	% change	2015	2016	% change
MIS / ISZ	Gross production	28,772.3	30,039.4	4.4%	224,926.7	268,443.9	19.3%
	Net production	28,333.6	29,548.7	4.3%	221,891.7	264,243.5	19.1%
Rural Systems / Rural Zones	Gross production	863.1	940.0	8.9%	2,801.6	3,424.4	22.2%
	Net production	914.1	994.6	8.8%	2,627.2	3,221.4	22.6%
Dhofar System / Dhofar Zones	Gross production	3,122.6	3,230.3	3.4%	21,804.0	23,331.5	7.0%
	Net production	2,941.7	3,057.2	3.9%	21,804.0	23,331.5	7.0%
Total Oman	Gross production	32,758.0	34,209.7	4.4%	249,532.3	295,199.7	18.3%
	Net production	32,189.3	33,600.5	4.4%	246,322.8	290,796.4	18.1%

Source: Company returns

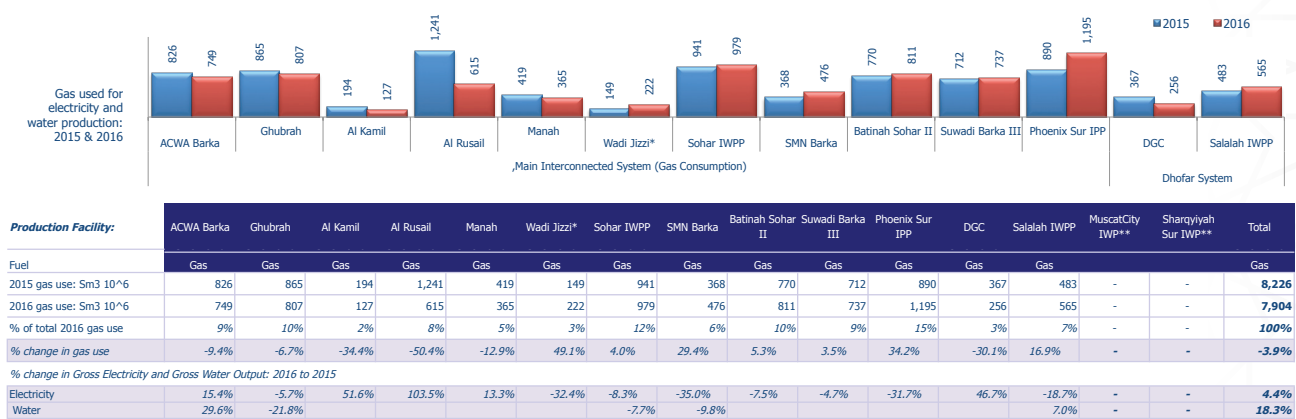
MIS gross generation was 4.4% higher in 2016 than in 2015, Rural Systems was 8.9% higher and generation for the Dhofar Power System was 3.4% higher. The net desalinated water production in Interconnected and Sharqiyah Zones (ISZ) increased by 19.1% in 2016 which accounted for 91% of the increase in total desalinated water production in 2016. Net water production in Rural Zones increased by 22.6% in 2016 and Dhofar Zone increased by 7.0%.

EWS Fuel Use in 2016

Natural Gas

The electricity and water sector consumed 3.9% less gas in 2016 than in 2015, compared to an increase of 4.4% and 18.3% in electricity and water production, respectively, please refer to Figure 9. The specific gas consumption of MIS connected facilities fell to 236 Sm³/MWh in 2016 from 256 Sm³/MWh in 2015 (an 8.0% reduction), and is 34% lower than in 2005.

Figure 9: Gas Consumption at Major Production Facilities: 2015 & 2016



Source: PWP & Company returns

* Wadi Jizzi Power Plant only, excludes OMCO units

** Muscat City IWP & Sharqiyah Sur IWP plants, no direct gas utilization.

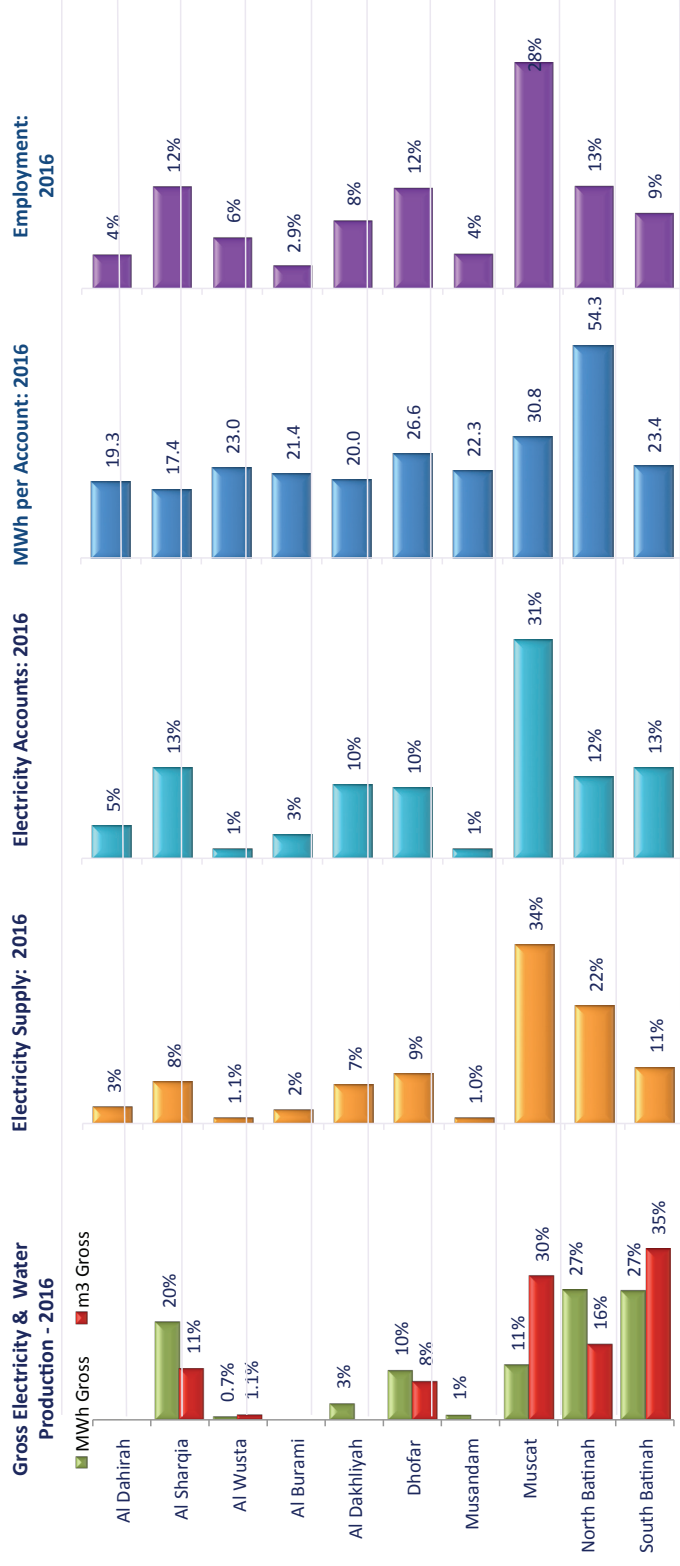
EWS Activity by Region: 2016

While all regions of Oman benefitted from electricity and water sector activity in 2016, activity is heavily concentrated in Muscat, North Batinah and South Batinah. These three areas accounted for 65% of 2016 electricity production, 80% of water production, 67% of supply, 56% of customer accounts and 49% of sector related employment in 2016.

Figure 10 presents details of the regional distribution of electricity and water sector activities in 2016.

Figure 10: EWS Activity by Region (Production, Supply, Accounts, Intensity & Employment): 2016

Regions	Electricity Production		Water Production		Electricity Supply & Accounts		Intensity		Employment	
	MWh Gross	MWh Net	m3 Gross	m3 Net	MWh Supplied	Accounts	MWh per Account		Direct + Contractors	
Al Dahirah	1,851	1,814	31,366,990	29,116,162	966,852	50,006	19.3		400	
Al Sharqia	6,885,428	6,867,814	3,301,357	3,099,740	2,422,933	139,106	17.4		1,183	
Al Wusta	245,447	285,985			336,174	14,616	23.0		593	
Al Burami					756,352	35,290	21.4		272	
Al Dakhliyah	1,149,906	1,139,216	23,380,822	23,380,496	2,250,104	112,742	20.0		790	
Dhofar	3,482,154	3,324,864	73,664	72,676	2,866,484	107,809	26.6		1,166	
Musandam	365,444	351,928	87,527,581	86,721,673	313,442	14,059	22.3		407	
Muscat	3,878,883	3,731,029	45,875,948	44,128,150	10,381,009	336,523	30.8		2,615	
North Batinah	9,130,665	9,439,727	103,673,362	104,277,489	6,818,562	125,605	54.3		1,190	
South Batinah	9,089,885	8,458,083	295,199,724	290,796,386	3,246,799	138,841	23.4		877	
Totals	34,209,662	33,600,461			30,358,712	1,074,597	28.3		9,493	

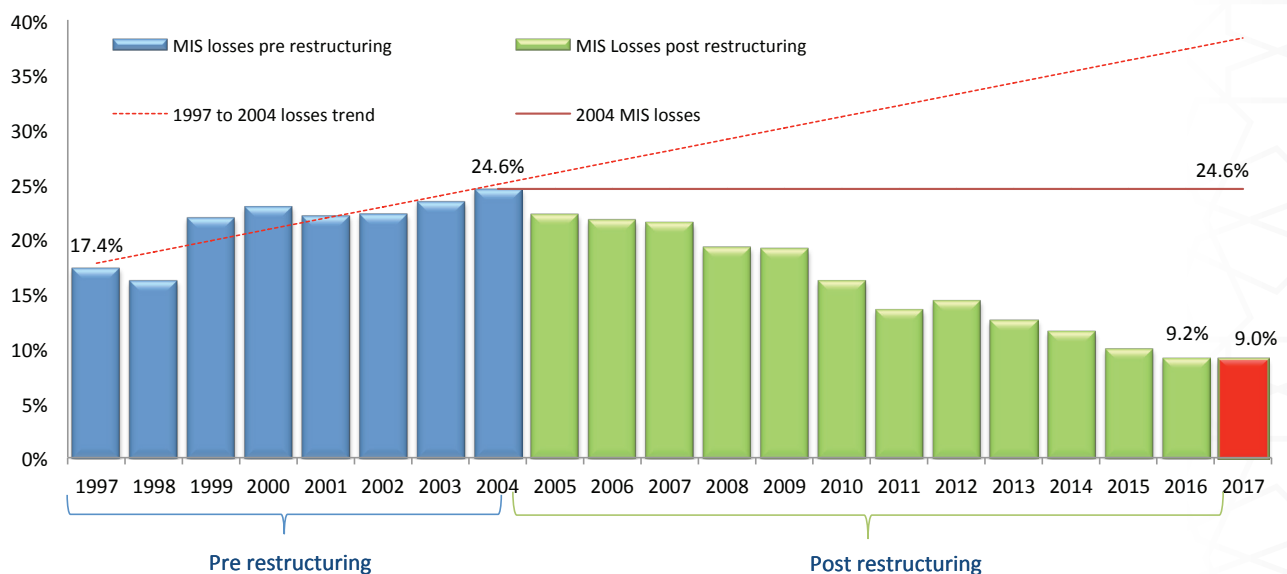


System Losses

Outturn 2016 data of units supplied and units entering electricity systems imply that MIS losses, which accounts for approximately 90% of the total share of electricity supply in Oman, decreased from 10.0% in 2015 to 9.2% in 2016, RAEC losses increased from 10.7% in 2015 to 14.7% in 2016, and Dhofar Power System losses increased slightly from 12.2% in 2015 to 12.7% in 2016.

Figure 11 shows annual MIS losses reductions since 2005.

Figure 11: Technical and non-technical Losses in the MIS



Source: Pre restructuring data from MHEW reports, post restructuring data from the Authority

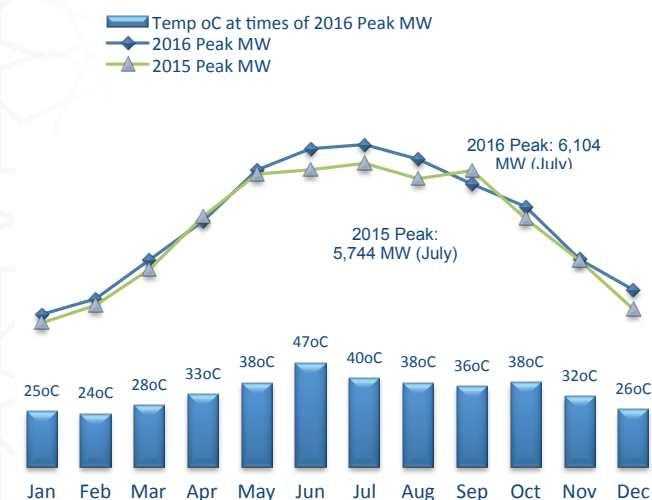
The significant losses reductions achieved since the sector restructuring in 2005 reflects the application of a clear incentive based price control mechanism and the constructive responses of licenses.

Losses reductions are of considerable economic value in terms of achieved and future cost savings. If the cost saving of a 1 MWh reduction in losses is OMR 10, the reduction in MIS losses from 10.0% in 2015 to 9.2% in 2016 returned benefits of around OMR 4.5 million (the benefit is OMR 45.5 million if assessed against 2004 losses of 24.6%). The cumulative value of MIS losses reductions since 2004 is a little under OMR 28.2 million, and in present value terms the benefit of MIS losses reductions in 2016 is around OMR 42 million, using a discount rate of 6% (OMR 758 million if assessed against 2004 losses of 24.6%). These figures take no account of investment savings in generation and network infrastructure, which would significantly increase the value of losses reduction benefits.

System Peak Demands: MIS and Dhofar Power System in 2015 and 2016

Figure 12 presents monthly MIS peak demands in 2015 and 2016.

Figure 12: Main Interconnected System Peak Demand - 2015 & 2016

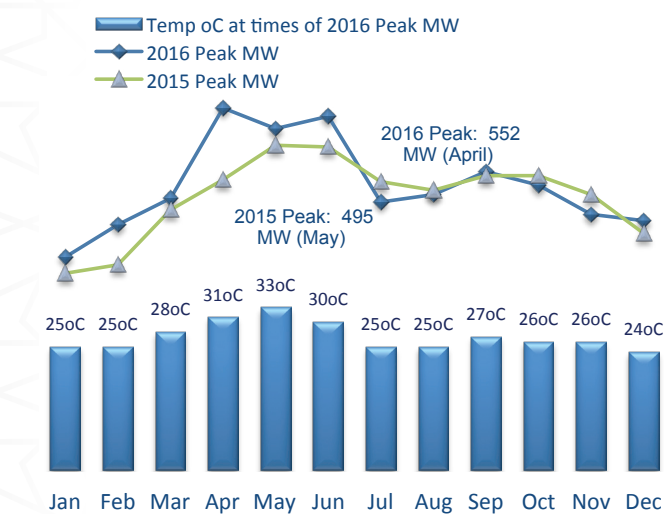


Source: OETC

	2015 Peak MW	2016 Peak MW	% change	Temp oC at times of 2016 Peak MW
Jan	2,682	2,846	6%	25
Feb	3,022	3,146	4%	24
Mar	3,707	3,889	5%	28
Apr	4,722	4,635	-2%	33
May	5,534	5,613	1%	38
Jun	5,618	6,024	7%	47
Jul	5,744	6,104	6%	40
Aug	5,448	5,821	7%	38
Sep	5,603	5,346	-5%	36
Oct	4,681	4,910	5%	38
Nov	3,879	3,901	1%	32
Dec	2,946	3,316	13%	26
Max MW	5,744	6,104	6%	

Figure 13 presents Dhofar Power System monthly peak demands in 2015 and 2016.

Figure 13: Dhofar Power System Peak Demand - 2015 & 2016



Source: OETC

	2015 Peak MW	2016 Peak MW	% change	Temp oC at times of 2016 Peak MW
Jan	300	325	8%	25
Feb	313	374	20%	25
Mar	397	414	4%	28
Apr	443	552	25%	31
May	495	521	5%	33
Jun	493	540	9%	30
Jul	440	409	-7%	25
Aug	427	420	-1%	25
Sep	449	455	1%	27
Oct	449	435	-3%	26
Nov	420	390	-7%	26
Dec	361	380	5%	24
Max MW	495	552	11%	

Electricity Demand Forecastst

In accordance with Condition 5 of the Power and Water Procurement licence, the PWP publishes an annual statement presenting a 7-year outlook for electricity and desalinated water demand, and the capacities required to meet forecast demand, for the MIS and Dhofar Power System. The electricity demand forecasts in each 7-year statement are official forecasts to which electricity sector planning is referenced. The most recent 7-year statement (Issue 11, for the period 2017 to 2023) is available for review and download from the PWP's website (www.omanpwp.com). The main highlights of the electricity demand forecasts are as follows:

- MIS:** in the "expected case", MIS peak demand is projected to grow at 6% per year to reach 8,960 MW in 2023 which is lower than the previous forecast. The "low case" projects 5% annual growth, resulting in peak demand of 8,310 MW in 2023, the "high case" projects 8% annual growth and peak demand at 10,020 MW in 2023, about 1,060 MW higher than the central case. In terms of energy, the expected, low and high case forecasts for 2023 are 48TWh, 43 TWh and 54 TWh respectively; and
- Dhofar System:** in the "expected case" peak demand is expected to grow at 6% per year, reaching 765 MW in 2023. The "low case" projects 5% annual growth, reaching 688 MW by 2023. The "high case" allows for more rapid industrialization, and has peak demand increasing at 9% per year to reach 924 MW in 2023. In terms of energy, the expected, low and high case forecasts for 2023 are 4.9 TWh, 4.4 TWh and 6.1 TWh respectively.

Please refer to Issue 11 of the PWP 7-year statement for further details of the electricity demand forecasts and how PWP plans to ensure sufficient contracted capacity will be available to meet forecast demand for electricity and related water.

Approved Projects and Capital Expenditure: 2016

Licensed system operators (OETC, MEDC, Majan, Mazoon, RAEC and DPC) approved 620 projects in 2016, with a total value of OMR 374.1 million. Table 1 presents details of the approved projects by Licensee, region and value.

Table 1: Project Approvals by Licensees in 2016

Region		Company					Totals	% Total
		OETC*	Muscat	Majan	Mazoon	RAEC		
Al Dahirah	RO	379,000		9,586,223		196,883	10,162,106	2.6%
Al Sharqiya	RO	21,492,899			17,179,031	7,257,952	45,929,882	11.7%
Al Wusta	RO					730,380	730,380	0.2%
Dakhiliya	RO	5,399,164			7,681,519	161,700	13,242,383	3.4%
Dhofar	RO					9,595,156	16,329,459	6.6%
Musandam	RO					4,105,900	4,105,900	1.0%
Muscat	RO		47,814,250			64,194	47,878,444	12.2%
North Batinah	RO	111,692,388		16,150,397	1,241,460		129,084,245	32.9%
South Batinah	RO	23,099,601			15,357,300		38,456,901	9.8%
Al Buraimi	RO			5,507,692			5,507,692	1.4%
Other**	RO	69,648,230			1,644,300		71,292,530	18.2%
Total Value		231,711,282	47,814,250	31,244,312	43,103,610	22,112,165	16,329,459	392,315,078
% of Total		59.1%	12.2%	8.0%	11.0%	5.6%	4.2%	
Number of Projects		19	33	109	40	27	435	663

Source: Company returns

* Projects are categorised under the region where the project commence

** Other: includes material costs and any other costs that are general to the whole region, not specific to one region

OETC accounts for 61.6% of approved projects by value, which reflects the significant investment made to connect and transport electricity from production facilities. MEDC accounts for 12.8% of projects value, Mazoon 11.5% , Majan 6.9% , DPC 4.3% and RAEC 2.9%.

In terms of regional investment, North Batinah region accounts for 36.7% (OMR 137.4 million) due to significant network investments by OETC, Majan and Mazoon in this region. All regions benefited from ERWS sector investment in 2016 in line with the government's policy commitment to provide electricity and related water services throughout the Sultanate.

EWS Employment & Omanisation: 2015 and 2016

The Authority undertakes an annual survey of electricity sector employment and Omanisation. The survey provides information on Direct and Indirect (contractor) employment by entity, by grade, by regulated activity, by region, and by nationality (Omani nationals and expatriates).

Table 2 summarises the results of the 2016 survey.

Table 2: Total EWS Employment by Type, Nationality and Function: 2015 & 2016

Type	Function	2015			2016		
		Omani	Expatriate	Total	Omani	Expatriate	Total
Direct	Admin & Supervisory	998	76	1,074	999	58	1,057
	Managerial	220	60	280	260	60	320
	Operations	264	38	302	314	28	342
	Technical	969	94	1,063	901	118	1,019
	Others	154	15	169	124	8	132
Direct Total		2,605	283	2,888	2,598	272	2,870
Contractor	Admin & Supervisory	248	162	410	423	224	647
	Managerial	89	89	178	174	124	298
	Operations	732	462	1,194	1,403	637	2,040
	Technical	593	1,294	1,887	591	1,341	1,932
	Others	1,303	888	2,191	997	709	1,706
Contractor Total		2,965	2,895	5,860	3,588	3,035	6,623
Total Employment		5,570	3,178	8,748	6,186	3,307	9,493
<i>% Change from 2015</i>					<i>11.1%</i>	<i>4.1%</i>	<i>8.5%</i>

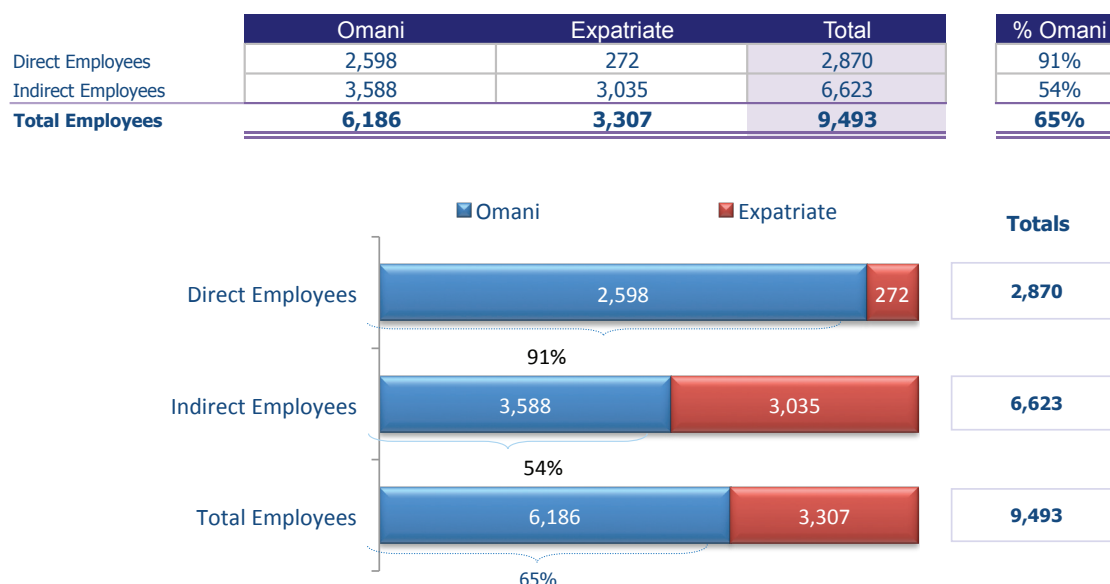
Source: Authority 2016 employment survey

2016 Direct employment was 0.6% lower than in 2015. Indirect employment in 2016 (6,623) was 13.0% higher than the previous year and reflects the increase of 623 Omani contractors.

Since 2005, total (Direct and Indirect) employment has increased by 97.9% from 4,796 to 9,493 in 2016. Direct employment accounts for 38% of this increase, with Omani nationals accounting for 91% of the increase in Direct employment.

Figure 14 presents the 2016 Omanisation rates for Direct and Indirect employment.

Figure 14: EWS Employment & Omanisation: 2016

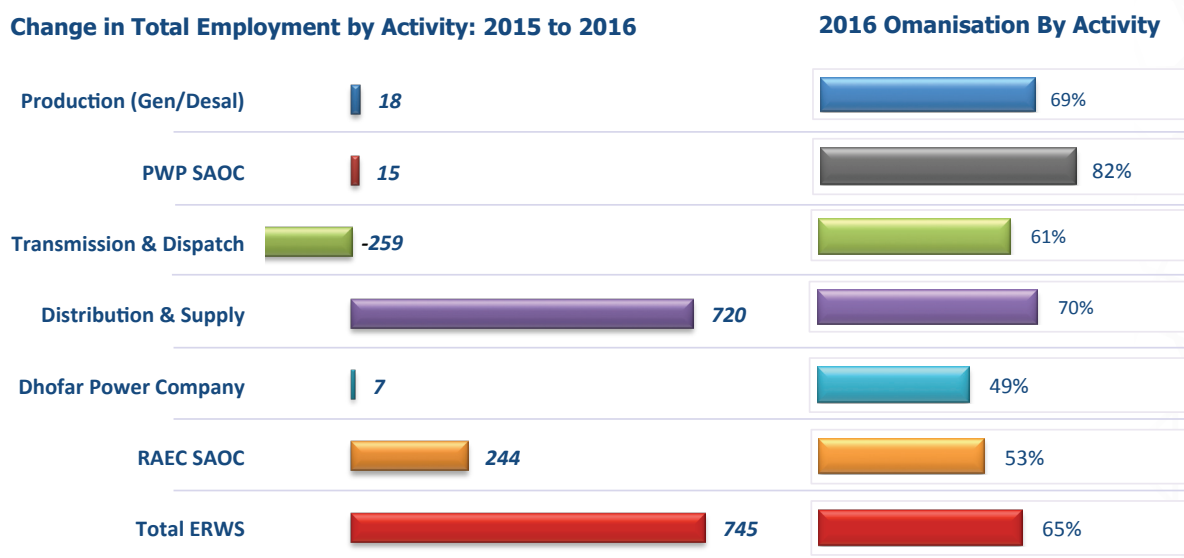


Source: Authority 2016 employment survey

Omani nationals accounted for 91% of Direct employment in 2016 and for 54% of Indirect employment, contributing to a sector Omanisation rate of 65%.

The Authority's annual employment survey highlights changes in the underlying composition of electricity sector employment; these are shown in Figure 15.

Figure 15: Employment & Omanisation by Activity: 2016



The increase in 2016 electricity sector employment shown in Figure 16 reflects the continuing employment needs of a sector that is working hard to keep pace with strong electricity demand growth. Licensees have a responsibility to ensure that the new recruits have the training and guidance needed to increase their productivity and thereby help moderate future increases in electricity sector costs.

Electricity & Related Water Sector Issues in 2016

Fatal Accidents

Despite the increased efforts to improve safety across the electricity sector, the number of fatal injuries due to electricity assets continued to be a concern in 2016. Regrettably, lives are still lost both for people working in the electricity sector and those who come into contact with utility assets. It has to be noted that the records below represent only the accidents that were reported to the Authority. Specifically, accidents of electrocution to the general public are normally brought to the knowledge of the Authority by the ROP, the Public Prosecution Office or via social media.

Table 3: Summary of Fatal Incident Investigations by the Authority - 2016

Date	Location	Licensee	Incident
23 January 2016	Hay Al Irfan	MEDC	A worker was electrocuted when a concrete pump came into contact with a live overhead 11kV line. This work was not related to MEDC.
18 February 2016	Al Al Hail South	MEDC	A 12 years old child died from an electrical shock when he walked through rain water around streetlight pole .
26 April 2016	Jalan Bani Bu Ali	OETC	Contractor fell from tower under construction.
24 June 2016	Al Qabil	MZEC	Contractor electrocuted whilst undertaking works on an overhead line.
16 October 2016	Jabal Akhdar	MZEC	A telecom Co technician was attempting to work on a communication pole adjacent to an 11 kV overhead line got electrocuted. He passed away weeks later due to the severity of his injuries.
15 November 2016	Al Burimi	MJEC	A worker was electrocuted when a concrete pump came into contact with a live overhead 33kV line. This work was not related to MJEC.

Health and Safety

The Authority is continuing its efforts to increase awareness of the importance of health and safety to both licensees and contractors in order to minimise the number of accidents that occur, and to reduce the seriousness of any accident that does occur. The Authority has engaged other stakeholders who own live electricity assets in public areas such as the Municipalities in order to improve the electrical safety to the general public. The Authority is working with the Licensees to ensure any unsafe asset in public areas is disconnected immediately until it is made safe. The Licensees have established communication channels to receive Safety related notification from the general public and rectify the issues in a prioritised manner.

Health and Safety Audit of Licensees

In 2016 the Authority conducted Health and Safety audits of MJEC and MZEC that sought to review both the progress that had been made since similar audits in 2010 and to confirm compliance with the health and safety requirements of their licence. Whilst the recent audits were able to demonstrate that significant improvements had been made by both licensees, including strong commitment from the board and executive management, the audits identified some worrying failures that resulted in routine contravention of the company safety rules and non-compliance with Omani Occupational Health and Safety requirement. The Authority is following the progress made by each company in implementing the audit recommendations on monthly basis.

The Authority followed the implementation of 2015 audit recommendations for Muscat Electricity Distribution Company and Rural Areas Electricity Company. The Authority focused on ensuring the full engagement of the Licensees to deliver

Health and Safety improvements taking the learning points from the previous Health and Safety audits. This process is continuing in 2017.

Saih Al Khayrat Investigation

The Rural Areas Electricity Company station in Saih Al-Khayrat suffered a major fire in March 2015 that caused a temporary suspension of work at the station. Nearly 10 months after the fire customers were still experiencing recurrent interruptions until the end of March 2016 leading to an increase in the number of complaints received by the Authority from customers in the area.

The Executive Director and a number of the Authority's specialists, visited the area to meet with the customers to identify the issues. Based on the information obtained from the customers and from RAEC the Authority decided to commission an investigation team to investigate the frequent and prolonged power interruptions that continued after the initial fire in March 2015. The investigation confirmed failure of RAEC in dealing with the technical problems in an appropriate manner was the direct cause of the power interruptions since April 2015. The continued power interruptions in the period from April to October 2015 were the result of incorrect handling by the company of these problems, which were mainly related to the distribution network and not the generation capacity.

The Authority issued the investigation report to RAEC which identified all the problems and recommended improvements in the RAEC's networks and operations but also to the performance in customer service and the development of better communication methods to notify customers of interruptions when they occur. The Investigation report was published by the Authority in line with the transparency of information policy within the sector.

Khasab Blackout Investigation

On 31 May 2016 Khasab power station blacked out leading to interruption of power supplies to the Khasab system which included a second system blackouts and an extended period of demand management. The Authority investigated the incident and the performance of RAEC in managing this incident. The investigation revealed positive indication about RAEC staff and their contractors' performance to restore supplies as quickly as possible. The investigation also highlighted areas of improvements. The report was issued to RAEC.

Preparation for summer 2016 and review of Licensees management of significant incidents

In Q1 of 2016 the Authority monitored the Licensees preparation for summer 2016 to ensure the sector companies were prepared for the expected rise in loads and were ready with contingency plans to ensure minimum number of interruptions and restoration times are achieved during the difficult time of summer. Special attention was given for the Eid days which were coinciding with the time of the summer peaks. The Authority then worked to assess the performance of the Licensees in managing significant incidents by reviewing one significant incident per Licensee during summer. The review looked into the details of how well the companies were prepared to deal with the interruptions and how they actually performed during the incident which covered both the technical performance and the management of customer service during the incident. The results of the review were sent to the Licensees to present the positive aspects of the performance and highlight areas of improvements.

New Billing System (Orion system)

During 2016 the Authority monitored the implementation of a new billing system (Orion system) that was rolled out by licensed suppliers, with the exception of the Dhofar Power Company. This allowed those suppliers to take over the bill processing function from their contractors and has improved their ability to identify and correct inaccurate meter readings, as well as estimating bills more accurately when meter readings have not been obtained.

Dangerous Incident Reporting and Protection from Risks of Underground Works and Installations Regulations

During 2016 the Authority worked to issue regulations relating to health and safety in the sector to address practical concerns relating to certain areas of performance by Licensees and/or contractors working on or near electricity assets and networks. The Regulations are:

1. The Dangerous Incident Reporting Regulation.
2. The Protection from Risks of Underground Works and Installations Regulation.

The Authority expects the two regulations to improve the health and safety practices in the sector and reduce the number of health and safety incidents and supply interruptions. The two regulations are expected to be officially issued and published in the official Gazette in early 2017.

Official Overseas Visits

- (i) In April 2016 a delegation led by the Authority's Executive Director visited the 160 MW Concentrated Solar Power (CSP) project in Morocco. The visit was to learn from the Moroccan experience on deploying renewable energy as the Sultanate embarks on a similar initiative. The visit and meetings with officials was extremely instructive and provided the team with an overview of the renewable energy projects competition process.
- (ii) During May / June 2016 a delegation led by the Authority's Chairman visited the Philippines and Singapore to learn about their experience on the development of spot markets. The purpose of the visit was to learn from the experience of other countries and discuss the how regulation principles evolve in a liberalized market. The visit was extremely beneficial and provided useful information that will inform and assist the introduction of spot markets in Oman.

GCC Regulators Forum Meeting

The Authority hosted in December 2016 the GCC Regulators Forum Meeting. The annual GCC Regulators meeting offers electricity regulators the opportunity to exchange experience and learn about the other GCC country's initiatives.

Professional Development of Authority Staff

The Authority is committed to the professional development of Omani staff. In 2016, one staff member of the Authority commenced Masters programmes. Mahmood Al Habsi has commenced an MSc in Electrical Energy Systems at Cardiff University.

Regulatory Focus #1 Power System Protection Capability – Appropriate Person Audits

Background

As presented in our 2013 Annual Report, power system protection is a critically important area as protection schemes are designed to identify and disconnect faults quickly, and minimise their impacts on supplies to customers. In 2013 Vector Power Solutions (VPS) audited network licensees to confirm (1) the qualifications and experience of staff responsible for protection related functions; and (2) that sufficient resources have been assigned by licensees to perform protection functions. These criteria were selected with reference to the statutory obligations on the Authority with respect to licences being held by Appropriate Persons

The 2013 assessment reports demonstrated that all of the network licensees needed to increase their technical capability with respect to power system protection, and the reports included recommendations to improve the ability of licensees to undertake power system protection activities.

Regulatory actions taken, and Licensee response

The Authority recognised a need to support licensees to implement a number of the recommendations: VPS were appointed to complete some initial tasks and supported DCRP in work that would have common benefit for the sector. However, there remained a lot for each licensee to complete themselves, and therefore in 2015 and 2016 the Authority invited VPS to re-audit the companies against the original criteria, but also to note the progress that had been made since the 2013 audits. The 2015 audits showed that really good progress had been made by licensees who had engaged fully in the process of enhancing technical capability. However, the 2016 audits also showed that there remained scope for improvement:

Company	Progress to date	Likelihood of achieving appropriate person standard
OETC	Excellent	Achieved
MJEC	Excellent	Achieved
MZEC	Excellent	Achieved
DPC	Very Good	Certain
MEDC	Very Good (since 2015)	Possible
RAEC	Disappointing (since 2015)	Possible

The Authority and its auditors also recognised the contribution of DCRP in raising standards and technical capability within the sector. The situation in 2012 was unsustainable, but the improvements thereafter reflect the benefits that can be achieved through a structured development and assessment plan supported by strong technical leadership and management commitment, as shown below:

Year	Total number of DCRP approved contractor	
	Testing Engineers	Protection Engineers
2012	12	7
2013	19	11
2014	33	26
2015	52	34
2016	53	37



Follow-up actions

As a result of the 2013 audits, the Authority increased its regulatory monitoring of the actions taken by those licensees perceived to have the greatest challenges. This is not a role the Authority would normally perform, but given the impact of power system protection on the safe and reliable operation of a power system, in this instance enhanced monitoring was deemed appropriate. The Authority is pleased to note that significant improvements have been achieved and that with continued management commitment full compliance is possible.

The Authority plans to undertake another protection audit in 2017 in order to confirm at all licensees to have appropriate technical resources to perform protection activities.

Regulatory Focus # 2 Customer Service Audits

Between 2013 and early 2016 distribution and supply licensees had all re-organised their customer service operations according to a common 'blueprint' developed by a leading international consultant. They had also commenced the installation of new IT systems designed to enable them to better monitor and control the level of service provided to customers. The Authority strongly supported this process and made specific additional allowances in the licensees' 2014-2017 price controls. A limited series of Key Performance Indicators was also introduced in order to enhance transparency and identify areas of weak performance.

Despite some clear improvements from those measures, as a result of continuing problems revealed by the Authority's analysis of customer complaints and direct feedback from customers and customer representatives, the Authority remained concerned that licensees were still failing too frequently to meet their customer service licence obligations and were making insufficient effort to accurately record performance delivered.

The Authority therefore resolved that an audit check be carried out on licensees' systems and processes during the summer of 2016. The audit was carried out by the Authority's Customer Affairs team, together with the UK consulting firm "energy people."

Two rounds of visits were made to each of licensees' premises, involving analysis of policy and procedural documentation, examination of IT system records and extensive interviews with responsible managers and staff. This was supplemented by an extensive telephone survey of more than 600 customers carried out by the Authority's staff. The results were recorded on the basis of a structured audit framework covering meter reading, late payment and disconnection, complaint handling, new connections, outage management, the quality of customer service advice given by front line staff and the services provided to special needs customers.

Licensees were awarded a score of between 1 and 5 for their achievement in each area, where 5 indicated an extremely good level of performance and 1 a poor level of performance. The underlying causes of varying performance levels were also tracked by assessing licensees understanding of and ownership of their obligations, their internal risk management systems, the adequacy of the IT systems installed at the time, the quality of contracts with outsourced service providers and the existence of staff instructions in conflict with regulatory obligations (for example, rules relating to minimum debt payment levels and customer disconnection procedures).

The results of the Authority's analysis are reproduced in Table 4 and Table 5 below and were published in an overall report released in September 2016.

Table 4 : Compliance with licence and KPIs

	Company O	Company I	Company S	Company D	Company C
Meter reading (Verification of KPI)	3	3	5	3	3
Meter reading (Verification of DLP)	1	1	4	2	4
Late Payment COP (Ability to Pay Guidelines)	1	4	2	3	3
Late Payment COP (Disconnection notices)	2	2	3	2	2
Complaint Handling Procedure	2	4	3	4	4
New Connections (Time taken to connect)	3	3	3	3	3
Special Needs (delivery of COP)	5	2	3	4	3
Outage Management (Customer Communications)	5	3	3	4	4
Quality of Front Line Advice)	5	3	4	5	4

Table 5 : Systems and processes

	Company O	Company Y	Company S	Company D	Company I
Understanding of Regulatory Framework	4	3	5	3	5
Well defined business owners for each Regulatory Obligation	5	3	5	5	3
Sufficient Risk Management on Regulatory Obligations	1	1	3	3	3
Adequate IT systems for internal reporting	2	2	3	3	1
No conflicting instructions	2	3	3	3	3
SLAs and Contracts	1	1	3	1	3

The audit process clearly revealed significant weaknesses, across several companies in relation to IT systems, contract management systems and practices, the verification of claimed meter reading problems where access to the customer's premises could not be obtained (so-called DLP customers) and disconnection procedures. On the other hand performance was much more satisfactory in relation to the quality of advice given by front line staff and communication with customers who have lost supply due to a temporary system fault (outage management), although there was still felt to be scope for further improvement in that area.

It was very disappointing to the Authority to note some of these failures, even after 10 years of operation in a regulated environment and the Authority has taken and will continue to take action to improve matters. This includes:



1. a requirement for each licensee to develop an Action Plan setting out clear improvement targets and deadlines that are discussed with the Authority on a quarterly basis;
2. a review of the KPI system, with the objective of introducing financial incentives and penalties and a customer compensation scheme as part of the forthcoming price control to apply from 2018; and
3. efforts to ensure that the sector makes every attempt to stimulate effective competition in the delivery of services provided by external contractors at the time existing contracts expire.

As a minimum the Action Plans were expected to cover the following areas:

- The need to ensure regular and accurate meter reading and that the work of external service providers is properly managed and audited;
- A more active approach to the identification and prevention of debt build-up;
- A more sympathetic approach to customers with payment difficulties, fully consistent with the approved Late Payment Code of Practice;
- A revised approach to disconnection and an immediate end to the practice of providing customers with a fuse with which to reconnect their own supply;
- A requirement to ask customers who have submitted a complaint whether or not they were satisfied with the Company's explanations and resolution of their problem; and
- More effort to ensure special needs customers reliant on electrically powered medical equipment are informed about and protected from supply failures, as far as possible.

In addition to regular follow-up meetings to discuss progress with the agreed Action Plans the Authority also announced its intention to periodically carry out repeat audit exercises

ARTICLE (29) REPORTING

Further Market Liberalisation

Table 6 presents the Authority's assessment of the possible implementation of the four Liberalisation measures identified in the Sector Law

Table 6: Further Market Liberalisation

S.No.	Liberalisation measure	Authority's assessment of market readiness:
1	Disposal of the Government's interest in the Electricity Holding Company SAOC or the Oman Power and Water Procurement Company SOAC	<p>The Authority does not consider the market ready for this liberalisation measure.</p> <p>The Authority does not believe customers, investors or the government would benefit from the implementation of this measure at the present time. The Authority does not propose to take steps to prepare the market for the implementation of this measure.</p>
2	Permitting licensed Production Facilities to sell to persons other than Oman Power and Water Procurement Company SAOC	<p>The Authority does not consider the market ready for this liberalisation measure.</p> <p>Work is ongoing to develop a spot market for electricity trade that would provide an alternative way for licensed Production Facilities to sell power to the PWP. The spot market would operate alongside and in conjunction with the existing system of long-term PPAs and PWPAs.</p> <p>The spot market is expected to increase the potential for competition in Oman's power generation market, and to provide a mechanism to make available additional capacity that might otherwise not be readily accessible.</p> <p>The electricity spot market is expected to be functional by 2020.</p>
3	Permitting persons other than Oman Power and Water Procurement Company SAOC and the Rural Areas Electricity Company SOAC to Import or Export electricity from or to another country	<p>The Authority does not consider the market ready for this liberalisation measure.</p> <p>Oman became a formal signatory to the GCCIA in 2014 and the Authority ensured the proposals are consistent with the regulatory regime in Oman and provide safeguards to protect the interests of customers, and other stakeholders. The GCCIA is reconsidering its previous position of not owning any assets in Oman and may own and/or operate the interconnector connecting the OETC System with the System of the United Arab Emirates (Transco Abu Dhabi). Following finalization of these arrangements with the GCCIA, PWP will Export and import electricity through the Interconnector whereby the delivery point will be the interconnection point between OETC System and the Interconnector of the GCCIA.</p>
4	Creation of competition amongst Licensed Suppliers	<p>The Authority believes the market is ready for Supply Competition and will initiate the Consultation and preparatory work required by the Sector Law prior to submitting proposals to government.</p> <p>The Authority continued to oversee the implementation of an AMR programme and the introduction, from 1 January 2017, of cost reflective tariffs for high use customers. The Authority intends to publish its position on the readiness of the market with regards to the introduction of supply competition during 2017.</p>

Electricity Subsidy

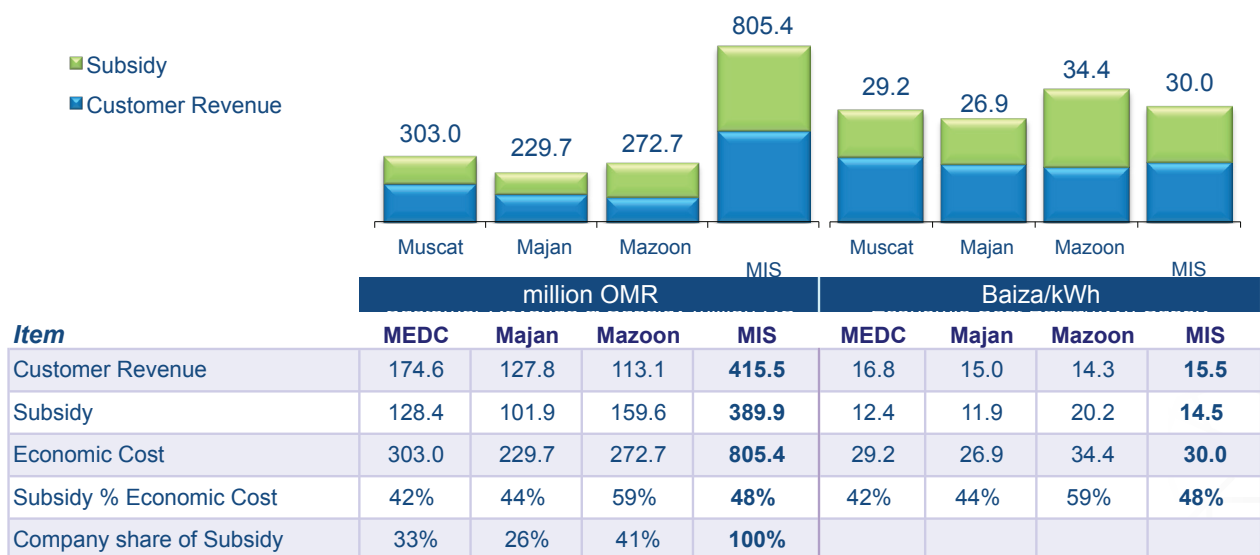
Article (18) of the Sector Law implements a mechanism through which the Ministry of Finance provides electricity Subsidy calculated by the Authority to licensed suppliers on an annual basis. The Authority undertakes three separate Subsidy calculations: the first calculates MIS Subsidy required by MEDC, Majan and Mazoon, the second calculates RAEC Subsidy, while the third calculates the Subsidy requirement of Dhofar Power Company.

Subsidy is defined as the difference between the economic cost of Supply (including financing costs) and Permitted Tariff (and other) revenue.

MIS Subsidy in 2016

Outturn MIS Subsidy in 2016 was OMR 389.9 million. This reflects total economic costs of OMR 805.4 million and customer revenues of OMR 415.5 million. Figure 16 presents outturn MIS Subsidy in 2016 by company.

Figure 16 : 2016 MIS Outturn Subsidy by Company



Source: 2016 audited SCRC Statements & Authority calculations

2016 MIS Subsidy accounted for 48% of the total economic cost of supply (OMR 805.4 million), the remaining 52% of costs was recovered through customer revenue.

MEDC, Majan and Mazoon accounted for 33%, 26% and 41%, respectively, of total 2016 MIS Subsidy. MEDC's 2016 Subsidy of OMR 128.4 million accounted for 42% of its total economic cost requirements, while Subsidy to Majan and Mazoon (OMR 101.9 million and OMR 159.6 million respectively) constituted 44% and 59% of their respective 2016 economic costs. The Subsidy requirement of each company reflects differences in customer mix and the characteristics of their respective distribution systems.

Please refer to Annex D for further details of the 2016 MIS outturn Subsidy.

2017 MIS Subsidy Forecast

Cost Reflective Tariffs for Large Consumers

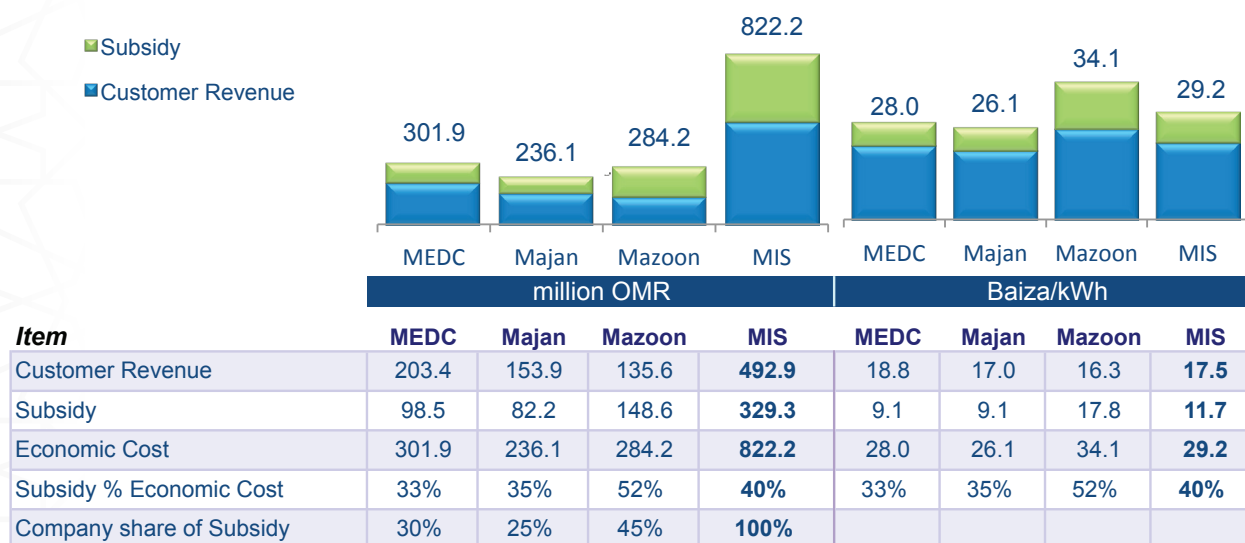
On 1 January 2017, new cost-reflective electricity tariffs (CRTs) for large Industrial, Commercial and Government customers came into effect. This represents the most substantial change in electricity tariffs in Oman for over two decades.

The new tariff is expected to moderate the growth in peak demand (and therefore reduce future electricity sector investment and fuel requirements), increase the level of total customer revenues and provide for a net reduction in total electricity sector Subsidy in 2017.

The Authority's estimate of 2017 MIS Subsidy is OMR 329.3 million. This reflects total estimated economic costs of OMR 822.2 million of which 60% (or OMR 492.9 million) is expected to be recovered through customer revenues.

Figure 17 presents the Authority estimates of 2017 MIS Subsidy by company.

Figure 17 : Subsidy Forecast - Main Interconnected System 2017



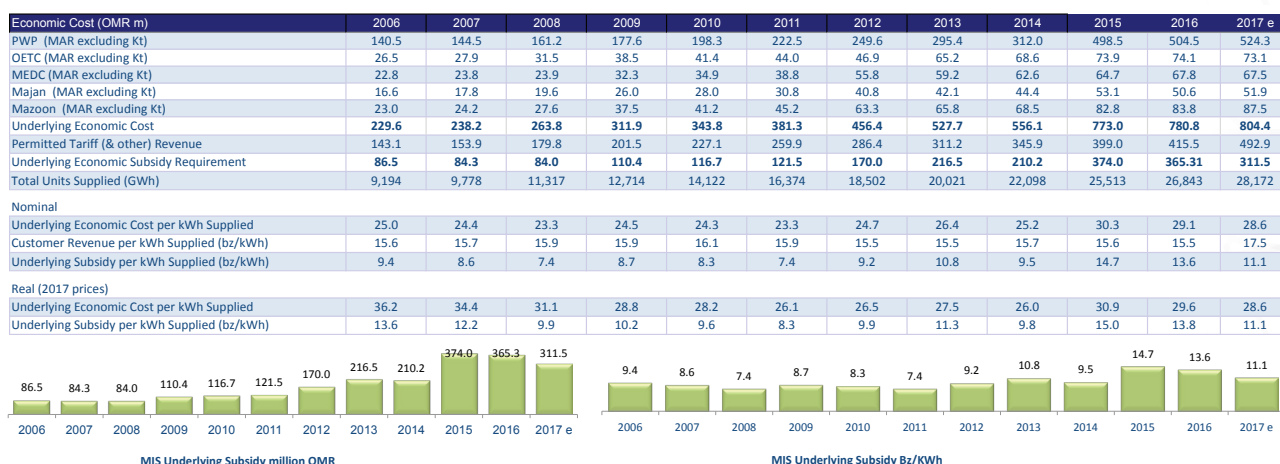
Source: Authority calculations

Please refer to Annex D for further details of the 2017 MIS Subsidy estimate.

Underlying Movement in MIS Subsidy: 2006 to 2016, and 2017 estimate

Figure 18 presents the Authority's underlying measure of MIS Subsidy between 2006 and 2016 and expected MIS Subsidy in 2017. The underlying measure assumes revenue, costs and efficiencies were correctly forecast between 2006 and 2016 so as to return zero correction factors. The 2017 estimate of MIS Subsidy reflects the 2017 MAR of PWP, OETC, MEDC, Majan and Mazoon and assumed growth in Supply of 5.0%.

Figure 18: Underlying Movement in MIS Subsidy: 2006 to 2016 & 2017 Forecast



Source: Authority calculations

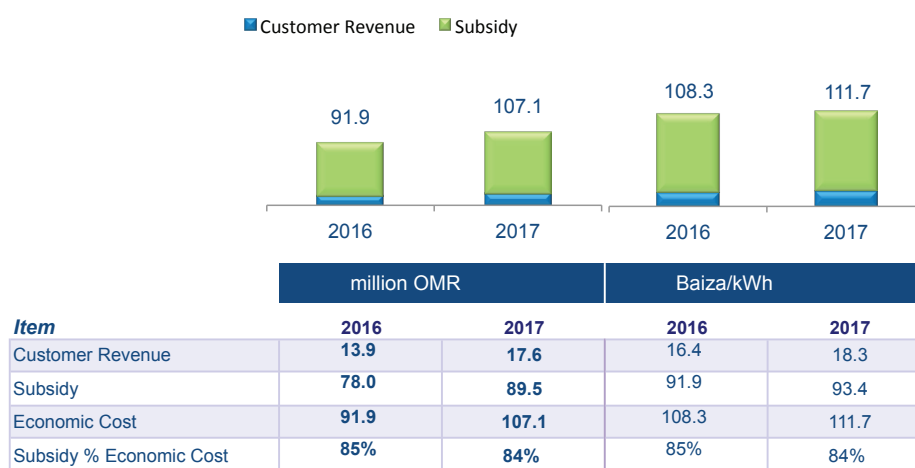
Following the increase in the price of gas sold to electricity generation plants, the underlying Subsidy per kWh increased significantly in 2015 (54%). Between 2015 and 2016 the underlying subsidy per kWh decreased by 7.5% (from 14.7 baiza/kWh to 13.6 baiza/kWh) and the Authority estimates that in 2017 it will decrease by a further 18.4% to 11.1 baiza/kWh.

Rural Systems

Outturn RAEC Subsidy in 2016 was OMR 78.0 million or 91.9 baiza/kWh. This reflects total economic cost of OMR 91.9 million (108.3 baiza/kWh) and OMR 13.9 million (16.4 baiza/kWh) in customer revenue.

Figure (19) compares outturn 2016 Subsidy and our 2017 estimate of RAEC Subsidy.

Figure. 19: RAEC 2016 Outturn & 2017 Subsidy Estimate

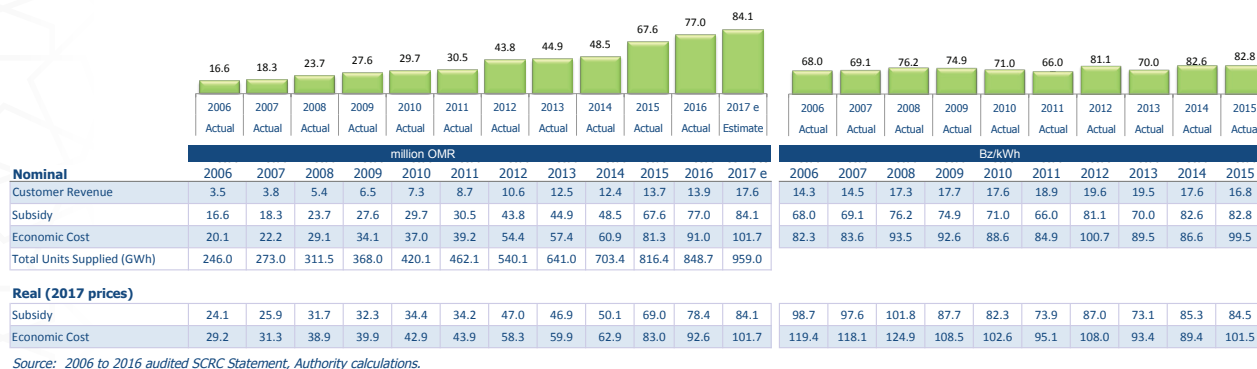


Source: 2016 audited SCRC Statements & Authority calculations

RAEC Subsidy will increase in 2017 to OMR 89.5 million (93.4 baiza/kWh); this is approximately 14.8% higher than outturn Subsidy in 2016; however in baiza/kWh it is expected to increase only by 1.6%. The increase in 2017 RAEC Subsidy is mainly driven by the increase in RAEC's fuel purchase rate following the Government's decision to re-align diesel prices to international market prices. As fuel accounts for around 50% of RAEC's total economic costs, this has a direct and significant impact on the company's costs.

Figure 20 presents underlying RAEC Subsidy between 2006 and 2016 and expected underlying RAEC Subsidy in 2017.

Figure 20: RAEC 2016 Outturn & 2017 Subsidy Estimate



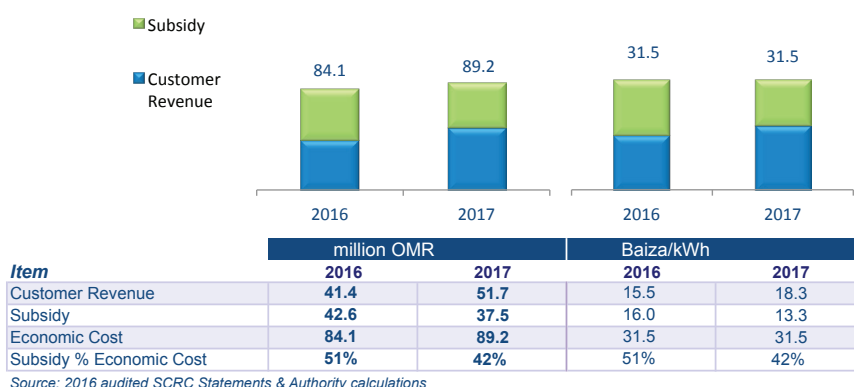
Please refer to Annex D for further details of the 2016 outturn RAEC Subsidy and 2017 RAEC Subsidy estimate.

Dhofar Power System

Outturn DPC Subsidy in 2016 was OMR 42.6 million. This reflects total economic cost of OMR 84.1 million and customer revenue of OMR 41.4 million. In 2016 DPC Subsidy accounted for 51% of the total economic cost of supply (OMR 84.1 million), the remaining 49% of costs was recovered through customer revenue.

Figure (21) compares outturn 2016 Subsidy and our 2017 estimate of DPC Subsidy.

Figure 21: DPC 2016 Outturn & 2017 Subsidy forecast



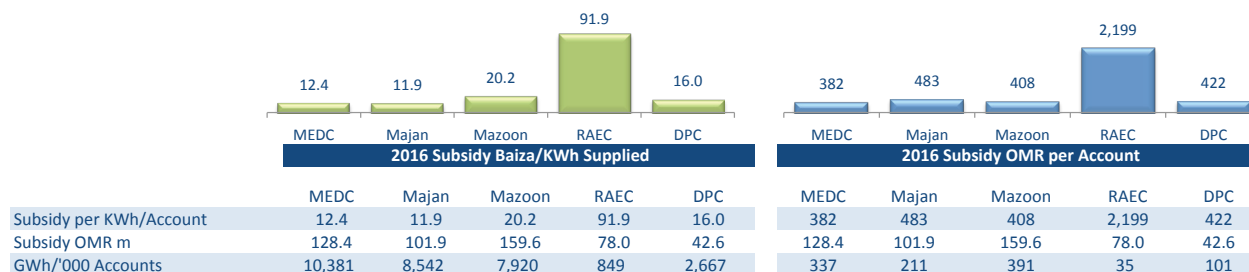
The Authority's estimate of 2017 DPC Subsidy is OMR 37.5 million. This is 12.1% lower than 2016 outturn Subsidy, reflecting an estimated 17.8% increase in average customer revenue (baiza/kWh) as a result of the introduction of Cost Reflective Tariffs.

Please refer to Annex D for further details of the 2016 outturn DPC Subsidy and 2017 DPC Subsidy estimate

Comparison of 2016 Subsidy by Company

Figure 22 presents a comparison of Subsidy provided to MEDC, Majan, Mazoon, RAEC and DPC in 2016. The left hand panel presents Subsidy (baiza) per kWh supplied, the right hand panel shows Subsidy (OMR) per Customer Account.

Figure 22: 2016 Subsidy Comparisons by Company



Source: 2016 audited SCRC Statements & Licensee returns

Mazoon accounts for 31.3% of the OMR 510.5 million of Subsidy and financial support provided to the companies in 2016, MEDC accounts for 25.2%, Majan 20.0%, RAEC 15.3%, and DPC 8.4%.

RAEC Subsidy per kWh supplied and per account is significantly higher than other companies (and excludes RAEC electrification funding provided in accordance with Article (87) of the Sector Law), confirming the significant Subsidy support provided to customers in rural areas.

The Subsidy requirements of all companies reflect nominal increases in economic costs (to support increasing demand) and Permitted Tariffs that are not indexed to inflation and decline in real terms year on year.

Electricity Tariffs

Permitted Tariffs

Electricity supplied to consumers is charged at a Permitted Tariff approved by the Council of Ministers. Table 7 presents details of the present Permitted Tariffs for different customer categories, and Permitted Tariff fees for the disconnection and reconnection of customer accounts:

Table 7 : Permitted Tariffs

A: Permitted Tariffs for Electricity Supply

Permitted Tariff Category	Tariff Structure				
Industrial 1	All Regions except Dhofar			Dhofar Region	
	September to April: 12 Baiza per kWh			August to March: 12 Baiza per kWh	
	May to August: 24 Baiza per kWh			April to July: 24 Baiza per kWh	
Commercial	Flat rate @ 20 Baiza per kWh				
Ministry of Defence, Sultan Special Force and Royal Office	Flat rate @ 20 Baiza per kWh				
Residential	0-3000 kWh	3001-5000 kWh	5001-7000 kWh	7001-10000 kWh	above 10000 kWh
	10 Bz / kWh	15 Bz / kWh	20 Bz / kWh	25 Bz / kWh	30 Bz / kWh
Government	0-3000 kWh	3001-5000 kWh	5001-7000 kWh	7001-10000 kWh	above 10000 kWh
	10 Bz / kWh	15 Bz / kWh	20 Bz / kWh	25 Bz / kWh	30 Bz / kWh
Agriculture & Fisheries	0-7000 kWh			7001 kWh & above	
	10 Baiza per kWh			20 Baiza per kWh	
Tourism2	0-3000 kWh	3001-5000 kWh	5001-7000 kWh	above 7001 kWh	
	10 Bz / kWh	15 Bz / kWh	20 Bz / kWh	20 Bz / kWh	

¹ Customers require a MOCI letter of recommendation and must maintain a power factor of least 0.9

² Subject to Ministry of Tourism regulations and approval

B: Permitted Tariff fees for Disconnection & Reconnection of accounts

Disconnection fee (all types of metered accounts): 7.500 Rial Omani

Reconnection fee (all types of metered accounts): 7.500 Rial Omani

Cost Reflective Tariffs

On 20 September 2016, the Council of Ministers approved the application of Cost Reflective Tariffs (CRT) for large Government, Commercial and Industrial customers whose annual consumption exceeds 150,000 kWh. The new tariff came into effect on 1 January 2017.

Cost Reflective Tariffs as the name implies, do not include any element of subsidy but reflects the actual cost of electricity supply.

Ministerial decision No. 3/2016 issued by the Public Authority for Electricity and Water on 29 December 2016 specified the component elements of the Cost Reflective Tariff, set out in Figure 23 below.

Figure 23: Cost Reflective Tariffs Calculation

$$\text{Cost Reflective Tariff} = \text{BST}_t + T_t + D_t + S_t$$

Where	BST _t	is the cost of energy charged at the electricity Bulk Supply Tariff in year t:
	T _t	is a transmission use of system charge;
	D _t ¹	is a distribution use of system charge; and
	S _t	is a charge for the administrative costs of Supply

¹ not applicable to transmission connected customers

Table 8 below presents the approved 2017 CRT charges

Table 8 : Approved 2017 CRT charges

CRT component	Charge	Type of Charge	Calculation of charge
BST _t	See Table 2 below	Energy	Applied to hourly kWh consumption
T _t	12,000 RO/MW	Demand	Charge per annum applied to customer's contribution to system peak
D _t	7.0RO/MWh	Energy	Applied to each kWh consumption
S _t	50 RO/customer	Standing	Charge per account per annum for administering each customer account

Source : AER approved charges

Charges for subsequent calendar years will be revised based upon changes in underlying production costs as well as transmission, distribution and supply costs.

Electricity and Water Bulk Supply Tariffs

Electricity Bulk Supply Tariffs ("BST") relate to the tariff charged by PWP for the Bulk Supply of electricity to Licensed Suppliers in the MIS (MEDC, Majan, and Mazoon) and DPS. The approved 2017 PWP electricity Bulk Supply Tariffs are shown in Table 9.

Table 9: PWP 2017 Electricity Bulk Supply Tariffs

A **PWP Electricity Bulk Supply Tariff for MIS - 2017**

Baiza per kWh	Off Peak	Night Peak	Weekday Day-peak	Weekend Day-peak
January to March	12.0	12.0	12.0	12.0
April	14.0	14.0	14.0	14.0
May to July	17.0	26.0	67.0	39.0
August to September	15.0	21.0	26.0	19.0
October	14.0	14.0	14.0	14.0
November to December	12.0	12.0	12.0	12.0
Rate Band	Day(s) / Time(s)			
Off Peak	All days : 02:00 to 12:59 and 17:00 to 21:59			
Night Peak	All days : 22:00 to 01:59 (following day)			
Weekday Day-peak	Sunday to Thursday, 13:00 to 16:59			
Weekend Day-peak	Friday to Saturday, 13:00 to 16:59			

Source: PWP 2017 Electricity BST Leaflet for MIS

B PWP Electricity Bulk Supply Tariff for DPS - 2017

Baiza per kWh	On-Peak		Off-Peak Morning	Mid-Peak		Off-Peak Night
	Weekday	Weekend	All Days	Weekday	Weekend	All Days
January to March	12.0	12.0	12.0	12.0	12.0	12.0
April	33.0	33.0	19.0	28.0	25.0	27.0
May to June	53.0	33.0	28.0	42.0	25.0	27.0
July to August	13.0	13.0	13.0	13.0	13.0	13.0
September to October	17.0	13.0	13.0	17.0	13.0	13.0
November to December	12.0	12.0	12.0	12.0	12.0	12.0
Rate Band	Day(s) / Time(s)					
On-Peak Weekday	Sunday to Thursday : 00:00 to 03:59 and 15:00 to 16:59					
On-Peak Weekend	Friday to Saturday : 00:00 to 03:59 and 15:00 to 16:59					
Off-Peak Morning	All days : 04:00 to 10:59					
Mid-Peak Weekday	Sunday to Thursday : 11:00 to 14:59					
Mid-Peak Weekend	Friday to Saturday : 11:00 to 14:59					
Off-Peak Night	All days : 17:00 to 23:59					

Source: PWP 2017 Electricity BST Leaflet for DPS

PWP Electricity Bulk Supply Tariff for Musandam - 2017

Baiza/kWh	Capacity	Variable Charge
	Charge	(Baiza/ kWh)
January to March	5.7	11.03
April	8.5	11.03
May to July	20.0	11.03
August to September	14.3	11.03
October to December	5.7	11.03

Source: PWP 2017 Electricity BST Leaflet for Musandam

The Authority also approves water Bulk Supply Tariffs charged by PWP and RAEC for the Bulk Supply of water to Water Departments. Table 10 below shows the approved 2017 PWP and RAEC water Bulk Supply Tariffs.

Table 10: PWP and RAEC 2017 Water Bulk Supply Tariffs

A Charges for Bulk Supply to PAEW

Fixed Charges	Rate
Fixed charge for Water Desalination Capacity	OMR 0.311 per day per m ³ /day
Fixed charge for OPWP service (based on Water Desalination Capacity)	OMR 0.005 per day per m ³ /day

Variable Charges	On Peak Period (13:00 to 16:59 Daily)	Off Peak Period (00:00 to 12:59 and 17:00 to 23:59 daily)
January to March	0.085	0.085
April	0.093	0.093
May to July	0.291	0.115
August to September	0.136	0.102
October	0.093	0.093
November to December	0.085	0.085

Source: PWP 2017 Water BST Leaflet

B Charges for Bulk Supply to WGD

Fixed Charges	Rate
Fixed charge for Water Desalination Capacity	OMR 0.376 per day per m ³ /day
Fixed charge for OPWP service (based on Water Desalination Capacity)	OMR 0.005 per day per m ³ /day

Variable Charges	On- Peak Period 00:00 to 03:59 and 15:00 to 16:59 Daily	Off -Peak Period 04:00 to 14:59 and 17:00 to 23:59 Daily
January to March	0.085	0.085
April	0.166	0.129
May to June	0.227	0.154
July to August	0.086	0.085
September to October	0.097	0.089
November to December	0.085	0.085

Source: PWP 2017 Water BST Leaflet

C Charges for Bulk Supply to MISC

	Rate
Variable charge for Distillate Water Supplied to MISC	OMR 0.9962 to 0.3119 per day per m ³ /day

Source: PWP 2017 Water BST Leaflet

D RAEC Water Bulk Supply Tariff - 2017

	Rate
RAEC Water Bulk Supply Tariff	OMR 1.10 per m ³

Source: RAEC 2017 Water BST Leaflet

Transmission Use of System Charge

OETC levies a Transmission Use of System ("TUoS") charge for the use of its Transmission Systems in the MIS (MEDC, Majan and Mazoon) and DPS. The approved 2017 TUoS for both MIS and DPS are shown in Table 11 below.

Table 11 : 2017 Transmission Use of System Charge

OMR/MW	System	
	MIS	DPS
2017 TUoS Charge	11,294	11,294

Source: OETC 2017 Statement of Transmission System Charges

The TUoS charge is applied to Licensed Suppliers' (MW) share of system peak demand



Distribution Use of System Charge

Licensed Distribution companies apply a Distribution Use of System ("DUoS") charge for the use of their respective Distribution Systems. The approved 2017 DUoS charge for each distribution company (MEDC, Majan, Mazoon and DPC) are shown in Table 12 below.

Table 12 : 2017 Distribution Use of System Charges

OMR/MWh	Company			
	MEDC	Majan	Mazoon	DPC
2017 DUoS Charge	4.77	6.95	8.32	6.00

Source: Licensed Distribution companies' 2017 Distribution Use of System Methodology and Charging Statement

The above charges apply in respect of each MWh supplied through the respective Distribution System

REGULATION

Authority for Electricity Regulation, Oman

The Authority was established as an administratively and financially independent entity subject to State Audit Law by Article (19) of the Sector Law. The Authority is competent to regulate the electricity and related water sector pursuant to Article (2) of the Sector Law. Authority Members are appointed by the Council of Ministers for three year terms.

The present Members of the Authority are:

- Dr Amer bin Saif Al Hinai - Chairman and non-executive Member (a part time appointment);
- Ayisha bint Zaher Al Mawali - non-executive Member (a part time appointment);
- Mohammed bin Ahmed Al Shahri - non-executive Member (a part time appointment);
- Eng Saleh bin Hamood Al Rashdi- non-executive Member (a part time appointment);
- Qais bin Saud Al Zakwani - Executive Director and Member (a full time appointment).

Organisation Structure & Staffing

While Members are collectively responsible for managing the Authority's affairs and ensuring the Authority fulfils all of its statutory functions and duties, most day to day work is undertaken by four Directorates that are responsible for different aspects of regulation.

Authority Organisation Structure

Excluding Members, the Authority has a total compliment of 48 Directors and staff, most of whom are Omani national. Professional staff have qualifications relevant to their respective areas of regulation: 27 staff have Bachelor's Degrees and 10 have Master Degrees.

Members Meetings

Members met regularly throughout 2016 on the dates shown in Table 13

Table 13: Members Meetings in 2016

Appointed for term in: Meeting Dates	Dr Amer Al Hinai Chairman & Member May-2014	Qais Al Zakwani Executive Director & Member May-2014	Ayisha Al Mawali Member May-2014	Mohammed Al Shahri Member May-2014	Eng Saleh Al Rashdi Member April-2015
17-February-2016	✓	✓	✓	✓	✓
22-March-2016	✓	✓	✓	✓	✓
12-May-2016	✓	✓	✓	✓	✓
22-June-2016	✓	✓	✓	✓	✓
21-July-2016	✓	✓	✓	✓	✓
25-August-2016	✓	✓	✓	✓	✓
20-September-2016	✓	✓	✓	✓	✓
20-November-2016	✓	✓	✓	✓	✓
26-December-2016	✓	✓	✓	✓	✓

Funding & Regulatory Costs

The Authority recovers all of its costs through licence fees that apportion the Authority's costs on the basis of the time expected to be spent regulating each activity. Table 14 presents licence fee income by regulated activity and the number of Licence Holders by activity, for 2009 to 2017, inclusive.

Table 14: Licence Fees 2009 to 2017

Licence Fees 2009 to 2017

Rial Omani		Generation	Generation & Desalination	Desalination	Transmission & Despatch	Distribution & Supply	RAEC Activities	PWP Activities	PWP: Electricity	PWP: Related Water	PWP: Salalah	Generation (Renewables)	Total Fee income
2009	Fees	154,351	220,501		514,503	782,045	230,792	547,824	288,122	14,700	245,002	0	2,450,016
	# licenses	4	4		1	3	1	1					14
2010	Fees	112,724	125,096		259,264	428,350	120,009	329,236	206,202	10,310	112,724	0	1,374,679
	# licenses	4	4		1	3	1	1	10,310				14
2011	Fees	118,360	164,189		285,190	492,601	132,010	362,160	123,996	11,341	226,822	0	1,554,510
	# licenses	4	5		1	3	1	1					15
2012	Fees	213,048	241,359		427,785	620,676	211,216	386,074	145,075	14,176	386,074	0	2,100,158
	# licenses	6	5		1	3	1	1					17
2013	Fees	312,470	241,359		410,674	777,914	211,216	179,733	151,381	28,353	0	0	2,133,367
	# licenses	8	5		1	4	1	1					20
2014	Fees	359,341	334,117		595,477	1,127,975	306,263	283,776	227,071	56,705	0	2,000	3,008,949
	# licenses	8	5		1	4	1	1				1	21
2015	Fees	427,491	417,316		848,124	908,704	331,875	356,897	272,611	84,286	0	2,000	3,292,407
	# licenses	8	5		1	4	1	1				1	21
2016	Fees	386,040	366,045		553,799	855,872	275,805	296,600	226,554	70,046	0	2,000	2,736,161
	# licenses	8	5		1	4	1	1				1	21
2017	Fees	413,696	375,822	70,357	539,405	1,382,226	470,514	410,417	337,128	73,289	0	2,000	3,664,437
	# licenses	8	5	3	1	4	1	1				1	24

Changes in licence fees year on year reflect the changing scope of regulatory work as the electricity and related water sector market develops.

The cost of electricity and related water sector regulation in 2016 was around 2.5 Rial Omani per Customer account, less than one tenth of one baiza per kWh Supplied and less than 0.25% of total electricity and related water sector turnover, metrics the Authority believes compare favourably to international benchmarks of regulatory costs.

2017 Forward Work Programme

Article (34) of the Sector Law requires the Authority to prepare a Forward Work Programme for the coming year, and consult with Persons who may be affected by the proposed work. In December 2016 the Authority consulted on its proposed 2017 Forward Work Programme and published the programme in accordance with Article (34) of the Sector Law and is in the process of implementing all of its constituent tasks. The 2017 Forward Work programme is presented in Annex F of this report.

Customer Affairs Directorate

The Customer Affairs Directorate is responsible for protecting and promoting the interests of electricity customers. The Directorate carries out these functions by resolving complaints, monitoring and ensuring performance of customer related licence obligations by distribution and supply licensees and the Rural Areas Electricity Company and enhancing customer awareness of the legal and regulatory framework and the standard of service to which they are entitled.

In 2016 the Directorate:

- i. Completed a detailed assessment of compliance with the regulatory framework for customer service and agreed Action Plans designed to enhance service levels and ensure the accurate reporting of performance achieved;
- ii. Monitored progress in relation to the implementation of an automated meter reading (AMR) system for around 10,000 Government, Commercial and Industrial customers who consume large amount of electricity in order to support the introduction of a Cost Reflective Tariff from January 2017;
- iii. Approved a request by Muscat Electricity Company to be permitted to enter a contract for the provision of joint electricity and water meter reading and bill delivery services;
- iv. Continued to build relations with external stakeholders, focusing on smaller scale community groups who are less well informed about electricity customers' rights;
- v. Worked with the Technical Directorate to undertake a review of the MIS Distribution Companies' management of supply interruptions during the summer of 2016;
- vi. Issued 3 new Determinations related to customer disputes with Distribution and Supply licensees, received 75 new customer complaints and resolved 72 outstanding customer complaints;
- vii. Advised a further 182 customers on their rights and how to progress their complaint using the approved complaint handling procedure;
- viii. Held regular liaison meetings with distribution and supply licensees and the Rural Areas Electricity Company to discuss customer related issues.
- ix. Clarified guidance relating to the permitted number of meters and residential customer accounts permissible in a single plot of land and agreed plans for managing non-compliant installations.

Licensing issues, Codes of Practice and Procedures

In relation to a proposal by Muscat Electricity Distribution Company to be permitted to enter a contract for the provision of joint electricity and water meter reading and bill delivery services, the Authority set out in a letter of 29 March 2016 addressed to all relevant licensees a series of information requirements designed to enable the Authority to satisfy itself that the interests of electricity customers would be adequately protected. On 30 August 2016 the Authority informed Muscat Electricity Company that its proposal has been approved, based on the Company's projections that the proposal would result in cost savings and quality enhancements for electricity customers and at minimal risk to the delivery of its licensed activities. The Authority noted that such approval may be rescinded at any time should the projected benefits not materialise.

Customer awareness programme

The Authority's continued the delivery of successful meetings designed to raise customers' and stakeholders' awareness of what they have a right to expect from licensed suppliers.

10 meetings were held during 2016 covering Al Dhakhiliya and Al Dhahira governorates, with a focus on bilateral meetings with smaller community based organisations that tend to have a lower level of awareness. In addition to awareness raising seminars and events the Authority started to monitor the licensee's communication plans. This helps the Authority to understand the accuracy and quality of the messages delivered to customers.

Complaints and determinations

It is the Authority's policy, as set out in the approved Complaint Handling Procedure, that licensees must first be given an opportunity to resolve customer complaints. Should they fail to resolve the matter to the satisfaction of the customer, or within the timeframes specified in the Complaint Handling Procedure, the customer may refer the case to the Authority. The Authority has legal powers to determine how such complaints should be resolved.

The Authority made 71 Determinations in the period 2005 – 2015, covering all main categories of complaint. This body of precedent was sufficient to enable the Authority's staff to resolve a further 72 unresolved complaints during 2016, compared with 75 complaints received during the year. The Authority issued 3 Determinations this year. These are summarised in Table 15.

Table 15: Determination of Customer Disputes

Determination No.	Licensed Supplier	Determination in favor of	Summary of the complaint and the Authority's Determination
1/2016	Mazoon	Customer	The complaint concerns a request by the Customer to relocate an underground cable that passes through his plot at the expense of the company. The Customer requested an extension to his land. The Company failed to identify a main 33 kV UG line present at the location and did not object to the extension request. The Authority considered that the Company and not the Customer had the primary responsibility for identifying the location of its assets and determined that the Company is to undertake the cost of relocating the disputed 33kV UG line.
2/2016	Muscat	Customer	The complaint concerns high bills received in January 2016 following the discovery of a series of inaccurate bills during the preceding 8 years. The Authority determined that the Customer's liability to pay should be limited to the last 12 months electricity consumption.
3/2016	Muscat	Customer	The complaint concerns a high bill received in December 2015 following the discovery of a series of inaccurate bills during the preceding 5 years. The Authority determined that the Customer's liability to pay should be limited to the last 12 months electricity consumption.

The Authority will continue to make further Determinations when it is necessary to set further precedent or if a Customer or affected Licensee does not accept the resolution of a dispute on the basis of precedent.

The figure of 75 complaints received during 2016 was a slight decrease on the 87 complaints received during 2015. Figure 24 below presents an analysis of the issues that were the cause of those 75 complaints.

The number of billing related complaints recorded in 2016 decreased from 45 to 44, which is 59% of the annual total. This still reflects problems experienced by licensees and their agents with meter readings and with the accuracy of estimated bills. These problems are continuing to be addressed with the implementation of a new billing system, new meter reading contracts and hand-held devices. The number of complaints relating to customer connection was lower than in 2016 at 7 compared with 16.

Figure 24: Categories of Customer Complaint in 2016

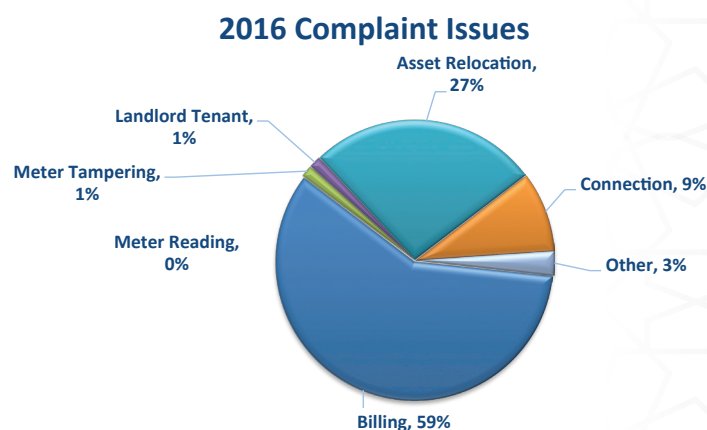
Complaint Issue	2015		2016	
	#	%	#	%
Billing	45	52%	44	59%
Meter Reading	0	0%	0	0%
Meter Tampering	0	0%	1	1%
Landlord Tenant	0	0%	1	1%
Asset Relocation	20	23%	20	27%
Connection	16	18%	7	9%
Other	6	7%	2	3%

Totals

87

75

Source: Authority complaints database



Customer Support

In addition to formal complaints received, the Directorate also provides advice to customers who contact the Authority before raising the matter formally with their licensed supplier or before they have received a formal response from their supplier. The Authority advises customers of their rights and, where appropriate, of precedent decisions taken in similar cases, as well as the procedure to be followed.

In 2016 the Directorate provided advice to 182 customers, compared with 159 in 2015 and 115 in 2014. Of those 182 cases, 125 related to billing, compared with 102 in 2015, an increase of 23%. Customer connections represented 17 cases, compared with 25 in 2015

Economics & Financial Affairs

The Directorate is responsible for the economic regulation of the electricity and water sector. This includes setting and monitoring RPI-X price controls, reviewing and approving electricity and related water Bulk Supply Tariffs, and calculating licensed supplier's annual Subsidy requirements.

In 2016 the Directorate:

- Undertook analysis to confirm outturn (2015) and projected (2016 and 2017) electricity sector subsidy requirements;
- Reviewed the 2017 PWP and RAEC electricity and water Bulk supply Tariff proposals submitted for approval;
- Reviewed the 2016-2022 PWP 7-Year Statement submitted for approval;
- Commenced preparatory work for the new Distribution/Supply and RAEC price control review; including publishing a key issues consultation paper and undertaking an initial review of costs;
- Undertook a study on electricity tariffs in Oman and prepared comprehensive tariff reform proposals that were presented to PAEW. The study considered modifications to the current structure of permitted tariffs and assessed the impact on the allocation of Subsidy to various customer categories; and
- Supported work on the development of the electricity spot market, undertaking a detailed review of the draft market rules that would govern the operation of the market.

Directorate of Technical Regulation

The Directorate of Technical Regulation is responsible for approving technical standards and for monitoring compliance with Industry Codes, planning and operating standards, and Oman Electrical Standards. The Directorate represents the Authority on the Grid Code and Distribution Code Review Panels and plays a lead role in technical and health and safety investigations, which in 2016 included fatal accidents, and supply interruptions. The Authority also continued its program of Health and Safety Audits of Licensees by auditing two distribution companies.

During 2016 the Directorate:

- (i) Conducted investigations in relation to fatalities and serious injuries in the electricity sector;
- (ii) Conducted an investigation into the prolonged power interruptions in Saih Al Khayrat;
- (iii) Conducted an investigation into the blackout of Khasab power station;
- (iv) Conducted a review of the preparation of the Distribution Licensees for summer 2016;
- (v) Reviewed the performance of the MEDC, MJEC and MZEC during significant incidents in summer 2016;
- (vi) Supported the Public Prosecution office in investigation of several complaints related to electricity assets clearances;
- (vii) Reviewed the development of protection capabilities within the electricity sector against the recommendations made by Vector Power Solutions in 2013 and the follow up audit in 2015;
- (viii) Reviewed the 2016 system capability statements of MEDC, MJEC, MZEC, DPC, RAEC and OETC;
- (ix) Undertook Health and Safety audits of MZEC and MJEC;
- (x) Followed up implementation of the recommendations from Health and Safety audits of MEDC and RAEC of 2015;
- (xi) Continued routine inspections of licensed distribution systems to ensure the safety and physical security of the networks;
- (xii) Supported discussions between MEDC and Oman Airport Management Company for the operation of the Airport HV networks;
- (xiii) Reviewed the progress of MIS Distribution licensees with regard to compliance of their networks with the Distribution Security Standards to assess level of non-compliance and determine associated penalties;
- (xiv) Followed up on the implementation of the Cyber Security standards compliance program by the Licensees;
- (xv) Followed up on the implementation of the Salalah Blackout investigation;
- (xvi) Participated in the discussions with PWP on the development of the Spot Market, and;
- (xvii) Reviewed the contingency plans of the different Distribution Licensees against the requirements to comply with the Distribution System Security Standards.

Price Control technical audit of Distribution License, DPC, and RAEC

The Directorate initiated its technical review of price control which is an audit of the technical performance of the Licensees and how they used the price control allowances in different aspects that are purely technical in nature, such as project development, technical training, asset management, etc. The result of the audits are used to review technical performance and link it with the financial resources made available to the Licensee to assess how efficient the licensee had been in spending their technical expenditure and also understand the improvements in performance to forecast the level of efficient allowances required for the upcoming price control period. The results of the audits will be finalised in 2017 to inform the discussion to set new price control allowances for the Licensees.

Grid Code Review Panel

The Grid Code Review Panel (GCRP) met four times during 2016, see Table 16

Table 16: Grid Code Review Panel meetings in 2016

Meeting	Meeting date	Chaired by	Location
GCRP 44	01-Jan-16	OETC	Muscat
GCRP 45	02-May-16	OETC	Muscat
GCRP 46	01-Aug-16	OETC	Muscat
GCRP 47	14-Nov-16	OETC	Muscat

Distribution Code Review Panel

The Distribution Code Review Panel (DCRP) met four times during 2016, see Table 17

Table 17 : Distribution Code Review Panel meetings in 2016

Meeting	Meeting date	Chaired by	Location
1/2016	08-Feb-16	RAEC	Muscat
2/2016	09-May-16	MEDC	Muscat
3/2016	15-Aug-16	DPC	Muscat
4/2016	28-Nov-16	DPC	Muscat

During 2016 the DCRP continued its efforts to improve the product and contractor approval processes and made significant improvements in its assessment of competent protection engineers, and testing and commissioning engineers.

The DCRP continued to improve its internal processes and procedures to be more efficient in product and contractor approvals. In 2016 the DCRP issued 49 new product approvals, almost double the figure in 2015. Also, the DCRP approved 62 new contractors and 4 consultants in 2016. In addition the DCRP continued to assess and approve protection engineers as 3 additional approved protection engineers and one more testing engineer were authorised in 2016

Licensing & Legal Affairs

In general, the Licensing and Legal Affairs Directorate acts as a legal counsel to the Authority Members to ensure that all Authority decisions comply with the requirements of the Sector Law and other applicable Laws. In addition, the Directorate is responsible for maintaining channels of communication with the relevant Government entities as well as competent authorities to ensure that the Authority has all information needed. The functions of the Directorate have two streams: Licensing; and Legal Affairs.

From the Licensing perspective, the Directorate is responsible for handling and processing Licence and Exemption applications submitted to the Authority. It also has the duty to monitor compliance of Licence Holders and Exemption Holders with the Sector Law and the authorizations granted by the Authority.

On the Legal Affairs side, the Directorate handles and represents the Authority in litigation cases involving the Authority before a number of Omani courts. The Authority handles all its cases internally without appointing external lawyers. The Directorate also plays a key role in drafting regulations and other regulatory documents issued by the Authority. It also provides legal opinions to the Authority Members and other Directorates when required.

Along with other employees of the Authority, some employees of the Directorate have the capacity of judicial authority which allows them to undertake certain duties in inspections and investigations. The Directorate is also responsible for maintaining the Public Register.

In 2016, the Directorate:

- Modified all Licenses granted to Licensees in the Electricity and Related Water Sector (except for OPWP) to include a new Condition to their Licences to take certain measures to comply with the SCADA and DCS Cyber Security Standards. These modifications took effect on 1 January 2016. The Authority determined the need for these Standards to minimize the risk of a large scale impact on the Sector due to Cyber Security incidents. Also, they are to safeguard the Systems from threats by increasing security and confidentiality of data held by these Systems and/or exchanged with other Systems.
- Reviewed a Licence application from Sharqiyah Desalination Company SAOG (SDC). The Authority granted SDC a Desalination Licence of a Special Nature to authorize the Licensee to undertake the activity of Desalination of water from a Desalination Facility of a special Nature effective from 25 February 2016, for a period of 25 years. The Desalination Facility of a Special Nature is located in Al Sharqiyah South, with a Production Capacity of (131,718 m³/day).
- Reviewed a Licence application from Muscat City Desalination Company SAOC (MCDC). The Authority granted MCDC a Desalination Licence of a Special Nature to authorize the Licensee to undertake the activity of Desalination of water from a Desalination Facility of a Special Nature effective from 1 July 2016, for a period of 25 years. The Desalination Facility of a Special Nature is located in the Governorate of Muscat, with a Production Capacity of (190,932m³/day).
- Reviewed a Licence application from Muscat Water LLC (MW). The Authority granted MW a Desalination Licence of a Special Nature to authorize the Licensee to undertake the activity of Desalination of water from a Desalination Facility of a special Nature effective from 17 November 2016, for a period of 25 years. The Desalination Facilities of Special Nature consist of: (i) Qurayyat Plant with a Production Capacity of 8,000 m³/day and (ii) Aseelah Plant with a Production Capacity of 10,000 m³/day; located in Muscat Governorate and South Sharqiyah Governorate, respectively.
- Reviewed a Licence application from Musandam Power Company SAOC (MPC). A Generation Licence to authorize MPC to generate electricity from its Production Facilities was to be granted in early 2017.



- Issued new Application Forms for Article (106) Consent, Change of Control, Licence Exemption, Generation Licence, Generation and Desalination Licence, Desalination Licence of a Special Nature as well as Transmission (Dispatch), Distribution & Supply, Import & Export and International Interconnection Licence.
- Actively participated in the arrangements relating to GCC Electricity Interconnection Project including the matters relating to the regulatory framework of the GCC Electricity Interconnection Authority.
- Reviewed and approved an application for Approval of Change of Control for United Power Company. The name of the Licensee remained the same following the Change of Control.
- Reviewed and approved applications for disposal of assets and transfer of shares submitted by Licensees.



Annex A: Audited Financial Statements

**Authority for Electricity
Regulation, Oman**

**Report and Financial Statements
for the year ended 31st December 2016**



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Independent auditor's report to the members of Authority for Electricity Regulation, Oman

Report on the financial statements

Opinion

We have audited the financial statements of **Authority for Electricity Regulation, Oman**, (“the Authority”) which comprise the statement of financial position as at 31 December 2016 and the statements of revenue and expenses, changes in surplus fund and cash flows for the year then ended, and notes to the financial statements including a summary of significant accounting policies as set out in pages 4 to 20.

In our opinion, the accompanying financial statements present fairly, in all material respects, the financial position of the **Authority for Electricity Regulation, Oman** as at 31 December 2016 and of its financial performance and its cash flows for the year then ended in accordance with International Financial Reporting Standards.

Basis for opinion

We conducted our audit in accordance with International Standards on Auditing (ISAs). Our responsibilities under those standards are further described in the auditor’s responsibilities for the audit of the financial statements section of our report. We are independent of the Company in accordance with the International Ethics Standards Board for Accountants’ Code of Ethics for Professional Accountants (IESBA Code) together with the other ethical requirements that are relevant to our audit of the Company’s financial statements in Sultanate of Oman, and we have fulfilled our other ethical responsibilities. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Responsibilities of management and members for the financial statements

Management is responsible for the preparation and fair presentation of the financial statements in accordance with the International Financial Reporting Standards and, compliance with the relevant requirements of the Law for the Regulation and Privatisation of the Electricity and Related Water Sector (“the Sector Law”), promulgated by the Royal Decree 78/2004, and for such internal control as management determine is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, management is responsible for assessing the Authority’s ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless management either intends to liquidate the Authority or to cease operations, or has no realistic alternative but to do so.

Members responsible for overseeing the Authority’s financial reporting process.



Independent auditor's report to the members of Authority for Electricity Regulation, Oman (continued)

Auditor's responsibilities for the audit of the financial statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with ISAs will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

As part of an audit in accordance with ISA's, we exercise professional judgement and maintain professional skepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Authority's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
- Conclude on the appropriateness of management use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Company's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the financial statements or, if such disclosure are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Company to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

We communicate with the management regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.



**Independent auditor's report
to the members of
Authority for Electricity Regulation, Oman (continued)**

Report on other legal and regulatory requirements

Further, we report that the financial statements comply, in all material respects, with the relevant financial reporting requirements of the Law for the Regulation and Privatisation of the Electricity and Related Water Sector (the "Sector Law"), promulgated by the Royal Decree 78/2004.

Deloitte & Touche (M.E.) & Co. LLC
Muscat, Sultanate of Oman
22 June 2017

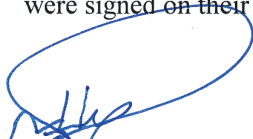


AUTHORITY FOR ELECTRICITY REGULATION, OMAN

Statement of financial position at 31 December 2016

	Notes	2016 RO	2015 RO
ASSETS			
Non-current asset			
Property and equipment	5	103,060	136,968
Current assets			
Prepayments and other receivables		38,080	16,950
Cash and cash equivalent	6	1,534,040	1,403,989
Total current assets		1,572,120	1,420,939
Total assets		1,675,180	1,557,907
Retained surplus fund and liabilities			
Retained surplus fund	7	1,293,932	1,378,846
Liabilities			
Non-current liability			
Provision for employees' end of service benefits	8	133,260	120,624
Current liability			
Accruals and other payables	9	247,988	58,437
Total liabilities		381,248	179,061
Total retained surplus fund and liabilities		1,675,180	1,557,907


The financial statements were approved and authorized for issue by the Members on 21 June 2017 and were signed on their behalf by:



Chairman



Member



Executive Director

The accompanying notes form an integral part of these financial statements.



AUTHORITY FOR ELECTRICITY REGULATION, OMAN

Statement of revenue and expenses for the year ended 31 December 2016

	Notes	2016 RO	2015 RO
Licence fees	10	2,761,118	3,292,408
Interest income		7,736	5,000
Other income		79,900	8,000
Total revenue		2,848,754	3,305,408
Salaries and employee related costs	11	(1,910,936)	(1,751,590)
General and administrative expenses	12	(466,324)	(402,259)
Consultancy expense		(484,797)	(228,539)
Depreciation	5	(71,611)	(68,519)
Total expenses		(2,933,668)	(2,450,907)
(Deficit) / surplus for the year		(84,914)	854,501

The accompanying notes form an integral part of these financial statements.



AUTHORITY FOR ELECTRICITY REGULATION, OMAN

Statement of changes in surplus fund for the year ended 31 December 2016

	Retained surplus RO
Balance at 1 January 2015	524,345
Surplus for the year	854,501
Balance at 1 January 2016	1,378,846
Deficit for the year	(84,914)
Balance at 31 December 2016	1,293,932

The accompanying notes form an integral part of these financial statements.

AUTHORITY FOR ELECTRICITY REGULATION, OMAN

Statement of cash flows for the year ended 31 December 2016

	2016 RO	2015 RO
Operating activities		
Cash receipts from licensees and application fees for license exemptions and other income	2,830,554	3,298,408
Cash paid to employees and other suppliers	(2,670,536)	(2,351,901)
Net cash from operating activities	160,018	946,507
Investing activities		
Purchase of property and equipment	(37,703)	(41,868)
Interest income	7,736	5,000
Net cash used in investing activities	(29,967)	(36,868)
Net change in cash and cash equivalents	130,051	909,639
Cash and cash equivalents at the beginning of the year	1,403,989	494,350
Cash and cash equivalents at the end of the year (Note 6)	1,534,040	1,403,989

The accompanying notes form an integral part of these financial statements.

AUTHORITY FOR ELECTRICITY REGULATION, OMAN

Notes to the financial statements for the year ended 31 December 2016

1. General

The Authority for Electricity Regulation, Oman (hereafter referred to as the “Authority”), was established under Article 19 of the Law for the Regulation and Privatisation of the Electricity and Related Water Sector (the “Sector Law”) promulgated by the Royal Decree 78/2004 issued on 1 August 2004.

The Authority is primarily engaged in the regulation of the electricity and related water sector in the Sultanate of Oman. Under the Sector Law regulating the Authority’s activities, the Authority levies fees on licensee companies that will enable the Authority to recover an amount not more than its expenses. Accordingly, surpluses of income over expenditure are held as explained in Note 7 to the financial statements.

The registered office of the Authority is P O Box 954, Postal Code 133, Al Khuwair, Sultanate of Oman.

2 Application of new and revised International Financial Reporting Standards (IFRS)

2.1 New and revised IFRSs applied with no material effect on the financial statements

The following new and revised IFRSs, which became effective for annual periods beginning on or after 1 January 2016, have been adopted in these financial statements. The application of these revised IFRSs has not had any material impact on the amounts reported for the current and prior years but may affect the accounting for future transactions or arrangements.

- IFRS 14 *Regulatory Deferral Accounts*
- Amendments to IAS 1 *Presentation of Financial Statements* relating to Disclosure initiative
- Amendments to IFRS 11 *Joint arrangements* relating to accounting for acquisitions of interests in joint operations
- Amendments to IAS 16 *Property, Plant and Equipment* and IAS 38 *Intangible Assets* relating to clarification of acceptable methods of depreciation and amortisation
- Amendments to IAS 16 *Property, Plant and Equipment* and IAS 41 *Agriculture: Bearer Plants*
- Amendments to IAS 27 *Separate Financial Statements* relating to accounting investments in subsidiaries, joint ventures and associates to be optionally accounted for using the equity method in separate financial statements
- Amendments to IFRS 10 *Consolidated Financial Statements*, IFRS 12 *Disclosure of Interests in Other Entities* and IAS 28 *Investment in Associates and Joint Ventures* relating to applying the consolidation exception for investment entities
- Annual Improvements to IFRSs 2012 – 2014 Cycle covering amendments to IFRS 5, IFRS 7, IAS 19 and IAS 34

AUTHORITY FOR ELECTRICITY REGULATION, OMAN

Notes to the financial statements for the year ended 31 December 2016 (continued)

2 Application of new and revised International Financial Reporting Standards (IFRS)

2.2 New and revised IFRS in issue but not yet effective

The Company has not yet applied the following new and revised IFRSs that have been issued but are not yet effective:

New and revised IFRSs	Effective for annual periods beginning on or after
Annual Improvements to IFRS Standards 2014 – 2016 Cycle amending IFRS 1, IFRS 12 and IAS 28	The amendments to IFRS 1 and IAS 28 are effective for annual periods beginning on or after 1 January 2018, the amendment to IFRS 12 for annual periods beginning on or after 1 January 2017
Amendments to IAS 12 <i>Income Taxes</i> relating to the recognition of deferred tax assets for unrealised losses	1 January 2017
Amendments to IAS 7 <i>Statement of Cash Flows</i> to provide disclosures that enable users of financial statements to evaluate changes in liabilities arising from financing activities.	1 January 2017
IFRIC 22 <i>Foreign Currency Transactions and Advance Consideration</i> The interpretation addresses foreign currency transactions or parts of transactions where: <ul style="list-style-type: none"> there is consideration that is denominated or priced in a foreign currency; the entity recognises a prepayment asset or a deferred income liability in respect of that consideration, in advance of the recognition of the related asset, expense or income; and the prepayment asset or deferred income liability is non-monetary. 	1 January 2018
Amendments to IFRS 2 <i>Share Based Payment</i> regarding classification and measurement of share based payment transactions	1 January 2018
Amendments to IFRS 4 <i>Insurance Contracts</i> : Relating to the different effective dates of IFRS 9 and the forthcoming new insurance contracts standard.	1 January 2018
Amendments to IAS 40 <i>Investment Property</i> : Amends paragraph 57 to state that an entity shall transfer a property to, or from, investment property when, and only when, there is evidence of a change in use. A change of use occurs if property meets, or ceases to meet, the definition of investment property. A change in management's intentions for the use of a property by itself does not constitute evidence of a change in use. The paragraph has been amended to state that the list of examples therein is non-exhaustive.	1 January 2018
Amendments to IFRS 7 <i>Financial Instruments: Disclosures</i> relating to disclosures about the initial application of IFRS 9	When IFRS 9 is first applied
IFRS 7 <i>Financial Instruments: Disclosures</i> relating to the additional hedge accounting disclosures (and consequential amendments) resulting from the introduction of the hedge accounting chapter in IFRS 9	When IFRS 9 is first applied

AUTHORITY FOR ELECTRICITY REGULATION, OMAN

Notes to the financial statements for the year ended 31 December 2016 (continued)

2 Application of new and revised International Financial Reporting Standards (IFRS) (continued)

2.2 New and revised IFRS in issue but not yet effective (continued)

New and revised IFRSs

Effective for annual periods
beginning on or after

IFRS 9 *Financial Instruments* (revised versions in 2009, 2010, 2013 and 2014)

1 January 2018

IFRS 9 issued in November 2009 introduced new requirements for the classification and measurement of financial assets. IFRS 9 was subsequently amended in October 2010 to include requirements for the classification and measurement of financial liabilities and for derecognition, and in November 2013 to include the new requirements for general hedge accounting. Another revised version of IFRS 9 was issued in July 2014 mainly to include a) impairment requirements for financial assets and b) limited amendments to the classification and measurement requirements by introducing a 'fair value through other comprehensive income' (FVTOCI) measurement category for certain simple debt instruments.

A finalised version of IFRS 9 which contains accounting requirements for financial instruments, replacing IAS 39 *Financial Instruments: Recognition and Measurement*. The standard contains requirements in the following areas:

- **Classification and measurement:** Financial assets are classified by reference to the business model within which they are held and their contractual cash flow characteristics. The 2014 version of IFRS 9 introduces a 'fair value through other comprehensive income' category for certain debt instruments. Financial liabilities are classified in a similar manner to under IAS 39, however there are differences in the requirements applying to the measurement of an entity's own credit risk.
- **Impairment:** The 2014 version of IFRS 9 introduces an 'expected credit loss' model for the measurement of the impairment of financial assets, so it is no longer necessary for a credit event to have occurred before a credit loss is recognised
- **Hedge accounting:** Introduces a new hedge accounting model that is designed to be more closely aligned with how entities undertake risk management activities when hedging financial and non-financial risk exposures.
- **Derecognition:** The requirements for the derecognition of financial assets and liabilities are carried forward from IAS 39.

AUTHORITY FOR ELECTRICITY REGULATION, OMAN

Notes to the financial statements for the year ended 31 December 2016 (continued)

2 Application of new and revised International Financial Reporting Standards (IFRS) (continued)

2.2 New and revised IFRS in issue but not yet effective (continued)

New and revised IFRSs

IFRS 15 *Revenue from Contracts with Customers*

In May 2014, IFRS 15 was issued which established a single comprehensive model for entities to use in accounting for revenue arising from contracts with customers. IFRS 15 will supersede the current revenue recognition guidance including IAS 18 *Revenue*, IAS 11 *Construction Contracts* and the related interpretations when it becomes effective.

The core principle of IFRS 15 is that an entity should recognize revenue to depict the transfer of promised goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services. Specifically, the standard introduces a 5-step approach to revenue recognition:

- Step 1: Identify the contract(s) with a customer.
- Step 2: Identify the performance obligations in the contract.
- Step 3: Determine the transaction price.
- Step 4: Allocate the transaction price to the performance obligations in the contract.
- Step 5: Recognise revenue when (or as) the entity satisfies a performance obligation.

Under IFRS 15, an entity recognises when (or as) a performance obligation is satisfied, i.e. when 'control' of the goods or services underlying the particular performance obligation is transferred to the customer. Far more prescriptive guidance has been added in IFRS 15 to deal with specific scenarios. Furthermore, extensive disclosures are required by IFRS 15.

Amendments to IFRS 15 *Revenue from Contracts with Customers* to clarify three aspects of the standard (identifying performance obligations, principal versus agent considerations, and licensing) and to provide some transition relief for modified contracts and completed contracts.

IFRS 16 *Leases*

IFRS 16 specifies how an IFRS reporter will recognise, measure, present and disclose leases. The standard provides a single lessee accounting model, requiring lessees to recognise assets and liabilities for all leases unless the lease term is 12 months or less or the underlying asset has a low value. Lessors continue to classify leases as operating or finance, with IFRS 16's approach to lessor accounting substantially unchanged from its predecessor, IAS 17.

Amendments to IFRS 10 *Consolidated Financial Statements* and IAS 28 *Investments in Associates and Joint Ventures* (2011) relating to the treatment of the sale or contribution of assets from and investor to its associate or joint venture.

Effective for annual periods
beginning on or after

1 January 2018

1 January 2018

1 January 2019

Effective date deferred indefinitely

AUTHORITY FOR ELECTRICITY REGULATION, OMAN

Notes to the financial statements for the year ended 31 December 2016 (continued)

2 Application of new and revised International Financial Reporting Standards (IFRS) (continued)

Management anticipates that these new standards, interpretations and amendments will be adopted in the Company's financial statements as and when they are applicable and adoption of these new standards, interpretations and amendments, except for IFRS 9, IFRS 15 and IFRS 16, may have no material impact on the financial statements of the Company in the period of initial application.

Management anticipates that IFRS 15 and IFRS 9 will be adopted in the Company's financial statements for the annual period beginning 1 January 2018 and that IFRS 16 will be adopted in the Company's financial statements for the annual period beginning 1 January 2019. The application of IFRS 15 and IFRS 9 may have significant impact on amounts reported and disclosures made in the Company's financial statements in respect of revenue from contracts with customers and the Company's financial assets and financial liabilities and the application of IFRS 16 may have significant impact on amounts reported and disclosures made in the Company's financial statements in respect of its leases.

However, it is not practicable to provide a reasonable estimate of effects of the application of these standards until the Company performs a detailed review.

3. Summary of significant accounting policies

Basis of preparation

The financial statements have been prepared in accordance with International Financial Reporting Standards issued by the International Accounting Standards Board, interpretations issued by the International Financial Reporting Interpretations Committee and the requirements of the Sector Law of the Sultanate of Oman.

These financial statements are presented in Rials Omani (RO) since that is the currency of the country in which the majority of the Authority's transactions are denominated.

The following are the significant accounting policies which have been applied consistently:

Property and equipment

Property and equipment purchased are recorded at cost together with any incidental expenses of acquisition.

AUTHORITY FOR ELECTRICITY REGULATION, OMAN

Notes to the financial statements for the year ended 31 December 2016 (continued)

3. Summary of significant accounting policies (continued)

Property and equipment (continued)

The cost of property and equipment is written off over their estimated useful economic lives as follows:

	Years
Furniture, fixtures and office equipment	6.67
Vehicles	5
Computers	3 - 4

Gains and losses on disposals of property and equipment are determined by reference to their carrying amount and sale proceeds and are recognised within other income in the statement of revenue and expenses.

Impairment

At each statement of financial position date, the Authority reviews the carrying amounts of its assets to determine whether there is any indication that those assets have suffered an impairment loss. If any such indication exists, the recoverable amount of the asset is estimated in order to determine the extent of the impairment loss, if any.

The loss arising on an impairment of an asset or cash generating unit is determined as the difference between the recoverable amount and carrying amount of the asset or cash generating unit and is recognised immediately in the statement of revenue and expenses.

Where an impairment loss subsequently reverses, the carrying amount of the asset is increased to the revised estimate of its recoverable amount and the increase is recognised as income immediately, provided that the increased carrying amount does not exceed the carrying amount that would have been determined had no impairment loss been recognised earlier.

Financial instruments

Financial assets and liabilities are recognised on the statement of financial position when the Authority becomes a party to the contractual provisions of the instrument.

The principal financial instruments are cash and bank balances, license fees receivable, other receivables and accruals and other payables. License fees receivable are stated at their nominal value as reduced by allowances for doubtful balances, if any. Trade and other payables are stated at their amortised cost.

Provisions

Provisions are recognised when the Authority has a present obligation as a result of a past event, which it is probable, will result in an outflow of economic benefits that can be reliably estimated.

AUTHORITY FOR ELECTRICITY REGULATION, OMAN

Notes to the financial statements for the year ended 31 December 2016 (continued)

3. Summary of significant accounting policies (continued)

Employees' end of service benefits

Payment is made to the Pension and Gratuities Fund for Omani Government Employees pursuant to the provisions of the Law of Post Service Pensions and Gratuities for Omani Government Employees issued by Royal Decree (26/86), as amended. Provision is also made for amounts payable under the Oman Labour Law applicable to expatriate employees, and is based on current remuneration and accumulated periods of service at the statement of financial position date.

Cash and cash equivalents

For the purpose of cash flow statement, cash and cash equivalents consist of cash on hand and bank balances maturing within three months from the date of placement.

Licence fees

Licence fees represent the amounts invoiced to the licensees for the year.

Foreign currencies

Transactions denominated in foreign currencies entered into during the year have been translated into Rials Omani and recorded at the rates of exchange prevailing at the dates of transactions. Foreign currency monetary assets and liabilities at the reporting date are translated at the rates of exchange prevailing at that date. Exchange differences that arise are taken to the statement of revenue and expenses.

Grants related to assets

Government grants in the form of freehold land are credited to statement of income and expenses here no rational basis exists for allocating the grant to a period other than the one in which it was received. Government grants related to assets are credited to deferred grants and recognized in the statement of income and expenses over the useful life of the assets constructed or acquired.

Taxation

The Authority is exempt from taxation as per Article (56) of the Sector Law.

Critical accounting judgements and key source of estimation uncertainty

In preparing the financial statements, the management is required to make estimates and assumptions which affect reported revenue and expenses, assets, liabilities and related disclosures. The use of available information and application of judgment based on historical experience and other factors are inherent in the formation of estimates. Actual results in the future could differ from such estimates.

Licence fees

The significant estimate in the preparation of these financial statements is primarily in respect of licence fee income to be recovered in respect of regulation by the Authority of the licensed companies.

AUTHORITY FOR ELECTRICITY REGULATION, OMAN

Notes to the financial statements for the year ended 31 December 2016 (continued)

3. Summary of significant accounting policies (continued)

Critical accounting judgements and key source of estimation uncertainty (continued)

Depreciation

Depreciation is charged so as to write off the cost of assets over their estimated useful lives. The calculation of useful lives is based on management's assessment of various factors such as the operating cycles, the maintenance programs, and normal wear and tear using its best estimates.

4. Financial risk management

Financial instruments carried on the statement of financial position comprise cash and bank balances, license fees receivable, other receivables and accruals and other payables.

Financial assets are assessed for indicators of impairment at each reporting date. Financial assets are impaired where there is objective evidence that as a result of one or more events that occurred after the initial recognition of the financial asset, the estimated future cash flows have been impacted.

The classification of financial assets depends on the purpose for which the financial assets were acquired. Management determines the classification of its financial assets at initial recognition.

Financial risk factors

Overview

The Authority's activities expose it to a variety of financial risks: market risk, credit risk and liquidity risk. The Authority's overall risk management programme focuses on the unpredictability of financial markets and seeks to minimise potential adverse effects on the Authority's financial performance.

Risk management is carried out by finance department under policies approved by the management.

Credit risk

Credit risk is the risk of financial loss to the Authority if a licensee or counterparty to a financial instrument fails to meet its contractual obligations and arises principally from the Authority's receivables from licensees.

Licence fee and other receivables

The Authority's exposure to credit risk is influenced mainly by the individual characteristics of each licensee. All licensees are based in Sultanate of Oman.

The potential risk in respect of amounts receivable is limited to their carrying values as management regularly reviews these balances whose recoverability is in doubt.

AUTHORITY FOR ELECTRICITY REGULATION, OMAN

Notes to the financial statements for the year ended 31 December 2016 (continued)

4. Financial risk management (continued)

Financial risk factors (continued)

Liquidity risk

Liquidity risk is the risk that the Authority will not be able to meet its financial obligations as they fall due. The Authority's approach to managing liquidity is to ensure, as far as possible, that it will have sufficient liquidity to meet its liabilities when due, under both normal and stressed conditions, without incurring unacceptable losses or risking damage to the Authority's reputation.

Typically, the Authority ensures that it has sufficient cash on demand to meet expected operational expenses. This excludes the potential impact of extreme circumstances that cannot reasonably be predicted, such as natural disasters.

Market risk

Market risk is the risk that changes in market prices, such as foreign exchange rates, interest rates affect the Authority's income or the value of its holdings of financial instruments. The objective of market risk management is to manage and control market risk exposures within acceptable parameters, while optimising the return.

Foreign currency risk

The Authority's functional and presentation currency is Rial Omani and the Authority's performance is substantially independent of changes in foreign currency rates. There are no significant financial instruments denominated in foreign currency and consequently, foreign currency risk is not significant.

Interest rate risk

The Authority has balances with banks, which are interest bearing and exposed to changes in market interest rates.

Capital management

The Authority's objectives when managing capital are to safeguard the Authority's ability to continue as a going concern and benefit other stakeholders. The Authority is not subject to externally imposed capital requirements (Note 1). There is no change in the capital management policy in the current year.

Fair value of financial instruments

Fair value of the financial instruments approximate to their carrying value at the statement of financial position date.

AUTHORITY FOR ELECTRICITY REGULATION, OMAN

Notes to the financial statements for the year ended 31 December 2016 (continued)

5. Property and equipment

	Furniture, fixtures and office equipment RO	Vehicles RO	Computers RO	Total RO
Cost				
At 1 January 2015	270,361	150,775	139,613	560,749
Additions	10,593	30,000	1,275	41,868
Disposals	-	(20,600)	-	(20,600)
At 1 January 2016	280,954	160,175	140,888	582,017
Additions	7,304	19,200	11,199	37,703
Disposals	-	(5,875)	-	(5,875)
At 31 December 2016	288,258	173,500	152,087	613,845
Depreciation				
At 1 January 2015	179,743	87,782	129,604	397,129
Charge for the year	40,049	23,445	5,025	68,519
Disposals	-	(20,599)	-	(20,599)
At 1 January 2016	219,792	90,628	134,629	445,049
Charge for the year	40,437	25,612	5,562	71,611
Disposals	-	(5,875)	-	(5,875)
At 31 December 2016	260,229	110,365	140,191	510,785
Carrying value				
At 31 December 2016	28,029	63,135	11,896	103,060
At 31 December 2015	61,162	69,547	6,259	136,968

The Ministry of Housing allotted 5,001 Sqm. of land to the Authority in 2015 in Plot No 1816 at Bausher. The land is given free of cost for the purpose of constructing office building for the Authority. The Authority cannot use the land for any other purposes. The management is showing the land at zero value as the land can be only use for the purpose designated by the Ministry.

6. Cash and cash equivalents

	2016 RO	2015 RO
Cash on hand	686	900
Cash at bank	1,533,354	1,403,089
	1,534,040	1,403,989

AUTHORITY FOR ELECTRICITY REGULATION, OMAN

Notes to the financial statements for the year ended 31 December 2016 (continued)

7. Retained surplus fund

The retained surplus fund represents the cumulative amount of excess or deficit of income over expenditure which will be offset against future funding requirements in accordance with Article (55) of the Sector Law.

8. Provision for employees' end of service benefits

	2016 RO	2015 RO
At 1 January	120,624	98,279
Charge for the year (Note 11)	12,636	22,345
At 31 December	133,260	120,624

9. Accruals and other payables

Accruals	247,276	58,252
Other payables	712	185
	247,988	58,437

10. Licence fees

Licence fees represent the amounts invoiced to licensees for the year.

11. Salaries and employee related costs

Salaries and allowances	1,642,380	1,480,501
Cost of end of service benefits for expatriate employees (Note 8)	12,636	22,345
Contribution to defined contribution retirement plan	135,058	119,855
Other employee related costs	120,862	128,889
	1,910,936	1,751,590

AUTHORITY FOR ELECTRICITY REGULATION, OMAN

Notes to the financial statements for the year ended 31 December 2016 (continued)

12. General and administrative expenses

	2016 RO	2015 RO
Rent	172,800	172,800
Insurance	68,826	65,291
Communications	13,405	14,200
Advertisement and publicity	77,499	6,833
Travelling and conveyance	50,277	42,799
Printing and stationery	11,985	22,176
Utilities	8,217	8,080
Repairs and maintenance	8,184	5,338
Miscellaneous expenses	55,131	64,742
	<u>466,324</u>	<u>402,259</u>

13. Taxation

The Authority is exempt from taxation as per Article (56) of the Sector Law.

14. Related party transactions

The Authority enters into transactions in the normal course of business with the Chairman and Members. These transactions are entered into at terms and conditions which the management believes could be obtained on an arm's length basis from independent third parties.

Such transactions comprise compensation to key management personnel which amounted to:

	2016 RO	2015 RO
Short term employment benefits	171,160	194,767
End of service benefits	<u>2,520</u>	<u>6,372</u>

AUTHORITY FOR ELECTRICITY REGULATION, OMAN

Notes to the financial statements for the year ended 31 December 2016 (continued)

15. Credit risk

Exposure to credit risk

The carrying amount of financial assets represents the maximum credit exposure. The exposure to credit risk at the reporting date was on account of:

	2016 RO	2015 RO
Other receivables	25,655	4,936
Bank balances	1,533,354	1,403,089
	<u>1,559,009</u>	<u>1,408,025</u>

Licence fees receivable of RO 12,065 (2015: Nil) at the reporting date were past due for 60 days (2015: nil days).

16. Liquidity risk

The following are the maturities of the financial liabilities.

	Carrying amount		6 months or less	
	2016 RO	2015 RO	2016 RO	2015 RO
Accruals	247,276	58,252	247,276	58,252
Other payables	712	185	712	185
	<u>247,988</u>	<u>58,437</u>	<u>247,988</u>	<u>58,437</u>

17. Interest rate risk

At the reporting date, the Authority's interest bearing financial instruments was:

	2016 RO	2015 RO
<i>Fixed rate instruments</i>		
Financial assets	<u>1,533,354</u>	<u>1,403,089</u>

18. Commitments

Operating commitments	<u>134,618</u>	<u>144,582</u>
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Annex B: Authorised Entities

Licence Holders

Majan Electricity Company SAOC (Member of Nama Group)

Regulated Activities: the Distribution and Supply of electricity to Premises



Mazoon Electricity Company SAOC (Member of Nama Group)

Regulated Activities: the Distribution and Supply of electricity to Premises



Muscat Electricity Company Distribution SAOC (Member of Nama Group)

Regulated Activities: the Distribution and Supply of electricity to Premises



Oman Electricity Transmission Company SAOC (Member of Nama Group)

Regulated Activities: the Transmission and Dispatch of electricity



Rural Areas Electricity Company SAOC

Regulated Activities: the Generation and Desalination; Transmission; Dispatch; Distribution and supply of electricity & Bulk supply of desalinated water to Water Departments



Wadi Al Jizzi Power Company SAOC

Regulated Activity: the Generation of electricity



Al Rusail Power Company SAOC

Regulated Activity: the Generation of electricity



Al Ghubrah Power and Desalination Company SAOC

Regulated Activity: the Generation of electricity and Desalination of water



Al Kamil Power Company SAOC

Regulated Activity: the Generation of electricity



United Power Company SAOC

Regulated Activity: the Generation of electricity



ACWA Power Barka SAOC

Regulated Activity: the Generation of electricity and Desalination of water



SMN Barka Power Company SAOC

Regulated Activity: the Generation of electricity and Desalination of water



Sohar Power Company SAOC

Regulated Activity: the Generation of electricity and Desalination of water



Oman Power and Water Procurement Company SAOC (Member of Nama Group)

Regulated Activities: Demand Forecasting; capacity procurement; bulk supply of electricity & water and procurement of electricity and desalinated water



Sembcorp Salalah Power & Water Company SAOC

Regulated Activities: the Generation of electricity and Desalination of water



Al Batinah Power Company SAOC

Regulated Activities: the Generation of Electricity



Al Suwadi Power Company SAOC

Regulated Activities: the Generation of Electricity



Licence Holders

Phoenix Power Company SAOC

Regulated Activity : the Generation of Electricity



Dhofar Power Company SAOC (Member of Nama Group)

Regulated Activity : the Distribution and Supply of electricity to Premises



Dhofar Generating Company SAOC

Regulated Activity : the Generation of Electricity



Bahwan Astonfield Solar Power LLC

Regulated Activity : the Generation of Electricity (Renewable Energy)

Sharqiyah Desalination Company SAOG

Regulated Activity : Desalination of a special Nature



الشرقية لتحلية المياه
Sharqiyah Desalination

Muscat City Desalination Company SAOC

Regulated Activity : Desalination of water from a Desalination facility of a special Nature.



Muscat Water LLC

Regulated Activity : Desalination of water from a Desalination Facility of a special Nature.

Licence Exemption Holders

Sohar International Urea Chemical Industries SAOC

Regulated Activities : the Generation of electricity co-located with the Desalination of water in the same site.



Oman India Fertiliser Company SAOC

Regulated Activities: the Generation of electricity and Desalination of water



Oman Cement Company SAOG

Regulated Activities: the Generation; Distribution; and Supply of electricity



Barr Al Jissah Resort Company SAOC

Regulated Activities: the Distribution of electricity



Orpic Refineries LLC

Regulated Activities : the Generation of electricity and Desalination of water ; Distribution and supply of electricity to Premises.



Oman LNG LLC

Regulated Activities : the Generation of electricity and Desalination of water ; Distribution and Supply of electricity.



Petroleum Development Oman LLC

Regulated Activities: the Generation; Distribution; Transmission; and Supply of electricity



Occidental of Oman INC

Regulated Activities: the Generation and Distribution of electricity



Sohar Aluminium company LLC

Regulated Activities : the Generation of electricity co-located with Desalination of water ; Distribution and transmission of electricity.



Occidental Mukhainza

Regulated Activities: the Generation of electricity and Desalination of water and the Distribution of electricity.



Ministry of Defence

Regulated Activity : the Generation of electricity for Sale to PWP

Oman Oil Company Exploration & Production

Regulated Activity : The Generation of electricity co -located with Desalination of water at the same site



BP Exploration (Epsilon) Limited

Regulated Activity : the Generation of electricity co-located with Desalination of water ; the Distribution and transmission of electricity.





Annex C: Electricity & Water Sector Statistics



Electricity Sector Statistics



Table 1

Electricity Customer Accounts by System, Company and tariff Category : 2015 and 2016

2015 Accounts	Main Interconnected System (MIS)						Rural Systems		Dhofar System		Total Oman	
	Muscat	% Total	Majma	% Total	Mazoon	% Total	Total MIS	% Total	RAEC	% Total	DPC	% Total
Residential	235,318	76.0%	143,753	72.6%	275,047	75.0%	654,118	74.8%	23,134	69.7%	70,584	76.1%
Industrial	186	0.1%	532	0.3%	102	0.0%	820	0.1%	50	0.2%	58	0.1%
Commercial	65,397	21.1%	41,442	20.9%	73,367	20.0%	180,206	20.6%	6,119	18.4%	16,549	17.8%
Agriculture & Fisheries	178	0.1%	3,679	1.9%	3,660	1.0%	7,517	0.9%	394	1.2%	103	0.1%
Hotels / Tourism	53	0.0%	364	0.2%	79	0.0%	496	0.1%	64	0.2%	84	0.1%
Government	8,569	2.8%	8,163	4.1%	14,412	3.9%	31,144	3.6%	3,322	10.0%	5,231	5.6%
Ministry of Defence	102	0.0%	72	0.0%	49	0.0%	223	0.0%	104	0.3%	109	0.1%
2015 Totals	309,803	100.0%	198,005	100.0%	366,716	100.0%	874,524	100.0%	33,187	100.0%	92,718	100.0%
% of Oman	31.0%		19.8%		36.7%		87.4%		3.3%		9.3%	100.0%
2016 Accounts	Main Interconnected System (MIS)						Rural Systems		Dhofar System		Total Oman	
	Muscat	% Total	Majma	% Total	Mazoon	% Total	Total MIS	% Total	RAEC	% Total	DPC	% Total
Residential	255,023	75.8%	151,919	72.0%	292,190	74.8%	699,132	74.5%	24,570	69.3%	77,203	76.4%
Industrial	195	0.1%	562	0.3%	136	0.0%	893	0.1%	61	0.2%	65	0.1%
Commercial	72,056	21.4%	45,840	21.7%	79,407	20.3%	197,303	21.0%	6,640	18.7%	17,894	17.7%
Agriculture & Fisheries	189	0.1%	3,845	1.8%	3,806	1.0%	7,840	0.8%	443	1.2%	102	0.1%
Hotels / Tourism	61	0.0%	376	0.2%	90	0.0%	527	0.1%	66	0.2%	84	0.1%
Government	8,918	2.7%	8,289	3.9%	15,013	3.8%	32,220	3.4%	3,546	10.0%	5,568	5.5%
Ministry of Defence	81	0.0%	70	0.0%	47	0.0%	198	0.0%	132	0.4%	110	0.1%
2016 Totals	336,523	100.0%	210,901	100.0%	390,689	100.0%	938,113	100.0%	35,458	100.0%	101,026	100.0%
% of Oman	31.3%		19.6%		36.4%		87.3%		3.3%		9.4%	100.0%
Net Change in Accounts	26,720		12,896		23,973		63,589		2,271		8,308	
Annual % Change	8.6%		6.5%		6.5%		7.3%		6.8%		9.0%	
											74,168	
											7.4%	

Table 2

Electricity Customer Accounts by System, Company and tariff Category : 2015 and 2016

2015 MWh	Main Interconnected System (MIS)						Rural Systems		Dhofar System		Total Oman	
	Muscat	% Total	Majjan	% Total	Mazoon	% Total	Total MIS	% Total	RAEC	% Total	DPC	% Total
Residential	4,940,681	48.9%	2,791,607	35.5%	4,607,282	61.0%	12,339,571	48.4%	401,818	49.2%	1,015,575	39.3%
Industrial	697,512	6.9%	3,362,813	42.8%	115,786	1.5%	4,176,110	16.4%	44,469	5.4%	502,840	19.5%
Commercial	2,647,956	26.2%	988,654	12.6%	1,455,438	19.3%	5,092,048	20.0%	125,672	15.4%	518,219	20.1%
Agriculture & Fisheries	3,515	0.0%	142,220	1.8%	195,110	2.6%	340,845	1.3%	29,849	3.7%	9,095	0.4%
Hotels / Tourism	1,962	0.0%	12,053	0.2%	14,857	0.2%	28,872	0.1%	29,378	3.6%	2,371	0.1%
Government	1,751,745	17.3%	543,057	6.9%	1,031,815	13.7%	3,326,616	13.0%	155,883	19.1%	418,792	16.2%
Ministry of Defence	60,339	0.6%	18,057	0.2%	130,153	1.7%	208,548	0.8%	29,352	3.6%	116,550	4.5%
2015 Totals	10,103,710	100.0%	7,858,460	100.0%	7,550,441	100.0%	25,512,611	100.0%	816,420	100.0%	2,583,442	100.0%
% of Total Oman	34.9%		27.2%		26.1%		88.2%		2.8%		8.9%	
2016 MWh	Main Interconnected System (MIS)						Rural Systems		Dhofar System		Total Oman	
	Muscat	% Total	Majjan	% Total	Mazoon	% Total	Total MIS	% Total	RAEC	% Total	DPC	% Total
Residential	4,758,438	45.8%	2,836,967	33.2%	4,931,628	62.3%	12,527,033	46.7%	400,437	47.2%	1,067,331	40.0%
Industrial	688,734	6.6%	3,780,903	44.3%	137,930	1.7%	4,607,567	17.2%	47,467	5.6%	497,695	18.7%
Commercial	3,103,649	29.9%	1,175,478	13.8%	1,538,690	19.4%	5,817,817	21.7%	132,921	15.7%	562,457	21.1%
Agriculture & Fisheries	6,878	0.1%	149,338	1.7%	195,198	2.5%	351,415	1.3%	32,833	3.9%	8,962	0.3%
Hotels / Tourism	2,187	0.0%	14,342	0.2%	14,851	0.2%	31,381	0.1%	28,829	3.4%	2,233	0.1%
Government	1,770,888	17.1%	566,953	6.6%	943,115	11.9%	3,280,957	12.2%	172,641	20.3%	408,770	15.3%
Ministry of Defence	50,234	0.5%	17,784	0.2%	158,424	2.0%	226,442	0.8%	33,539	4.0%	119,988	4.5%
2016 Totals	10,381,009	100.0%	8,541,766	100.0%	7,919,836	100.0%	26,842,611	100.0%	848,666	100.0%	2,667,434	100.0%
% of Total Oman	34.2%		28.1%		26.1%		88.4%		2.8%		8.8%	
Change in MWh	277,299		683,305		369,395		1,330,000		32,246		83,992	
Annual % Change	2.7%		8.7%		4.9%		5.2%		3.9%		3.3%	
												5.0%



Table 3

Customer Accounts, MWh Supplied and MWh per Account by System, Company and tariff Category : 2015 and 2016

2016		Main Interconnected System (MIS)						Rural Systems		Dhofar System	
Tariff Category	Item	Muscat	Majan	Mazoon	Total MIS		RAEC		DPC		Total Oman
Residential	Accounts	255,023.0	151,919.0	292,190.0	699,132.0		24,570.0		77,203.0		800,905.0
Residential	MWh Supplied	4,758,437.8	2,836,966.7	4,931,628.1	12,527,032.6		400,436.8		1,067,330.6		13,994,800.0
Residential	MWh Supplied per Account	18.7	18.7	16.9	17.9		16.3		13.8		17.5
Industrial	Accounts	195.0	562.0	136.0	893.0		61.0		65.0		1,019.0
Industrial	MWh Supplied	688,734.1	3,780,903.2	137,929.9	4,607,567.2		47,466.9		497,694.6		5,152,728.7
Industrial	MWh Supplied per Account	3,532.0	6,727.6	1,014.2	5,159.6		778.1		7,656.8		5,056.7
Commercial	Accounts	72,056.0	45,840.0	79,407.0	197,303.0		6,640.0		17,894.0		221,837.0
Commercial	MWh Supplied	3,103,649.4	1,175,477.6	1,538,689.7	5,817,816.7		132,920.9		562,456.7		6,513,194.3
Commercial	MWh Supplied per Account	43.1	25.6	19.4	29.5		20.0		31.4		29.4
Agriculture & Fisheries	Accounts	189.0	3,845.0	3,806.0	7,840.0		443.0		102.0		8,385.0
Agriculture & Fisheries	MWh Supplied	6,878.4	149,338.5	195,198.2	351,415.1		32,833.1		8,961.7		393,210.0
Agriculture & Fisheries	MWh Supplied per Account	36.4	38.8	51.3	44.8		74.1		87.9		46.9
Hotels / Tourism	Accounts	61.0	376.0	90.0	527.0		66.0		84.0		677.0
Hotels / Tourism	MWh Supplied	2,187.1	14,342.3	14,851.2	31,380.6		28,829.4		2,232.8		62,442.8
Hotels / Tourism	MWh Supplied per Account	35.9	38.1	165.0	59.5		436.8		26.6		92.2
Government	Accounts	8,918.0	8,289.0	15,013.0	32,220.0		3,546.0		5,568.0		41,334.0
Government	MWh Supplied	1,770,888.4	566,953.2	943,115.3	3,280,956.8		172,640.6		408,769.7		3,862,367.1
Government	MWh Supplied per Account	198.6	68.4	62.8	101.8		48.7		73.4		93.4
Ministry of Defence	Accounts	81.0	70.0	47.0	198.0		132.0		110.0		440.0
Ministry of Defence	MWh Supplied	50,233.7	17,784.3	158,424.1	226,442.1		33,538.6		119,988.0		379,968.8
Ministry of Defence	MWh Supplied per Account	620.2	254.1	3,370.7	1,143.6		254.1		1,090.8		863.6
Total Customer Accounts in 2016		336,523	210,901	390,689	938,113		35,458		101,026		1,074,597
Total MWh Supplied in 2016		10,381,009	8,541,766	7,919,836	26,842,611		848,666		2,667,434		30,358,712
MWh Supplied per Account in 2016		30.8	40.5	20.3	28.6		23.9		26.4		28.3
% change MWh per Account from 2015		-5.4%	2.0%	-1.5%	-1.9%		-2.7%		-5.2%		-2.2%

Table 4

Electricity Supply & Registered Accounts by Region & Company : 2015 and 2016

2015

Region	Company	MWh Supplied	% Oman	Accounts	% Oman	MWh Supply per Account
Al Dahirah	Majan	919,935	3.2%	47,028	4.7%	19.6
Al Sharquia North	Mazoon	1,030,116	3.6%	67,106	6.7%	15.4
Al Sharquia South	Mazoon	1,247,054	4.3%	64,239	6.4%	19.4
Al Wusta	RAEC	322,805	1.1%	13,635	1.4%	23.7
Burami	Majan	742,107	2.6%	33,777	3.4%	22.0
Dakhliyah	Mazoon	2,081,034	7.2%	106,249	10.6%	19.6
Dhofar	DPC	2,583,442	8.9%	92,718	9.3%	27.9
Dhofar	RAEC	181,026	0.6%	6,286	0.6%	28.8
Musandam	RAEC	312,589	1.1%	13,266	1.3%	23.6
Muscat	Muscat	10,103,710	34.9%	309,803	31.0%	32.6
North Batinah	Majan	6,196,418	21.4%	117,200	11.7%	52.9
South Batinah	Mazoon	3,192,238	11.0%	129,122	12.9%	24.7
Sultanate Totals 2015		28,912,474		1,000,429		28.9

2016

Region	Company	MWh Supplied	% Oman	Accounts	% Oman	MWh Supply per Account
Al Dahirah	Majan	966,852	3.2%	50,006	4.7%	19.3
Al Sharquia North	Mazoon	1,073,419	3.5%	71,103	6.6%	15.1
Al Sharquia South	Mazoon	1,349,514	4.4%	68,003	6.3%	19.8
Al Wusta	RAEC	336,174	1.1%	14,616	1.4%	23.0
Burami	Majan	756,352	2.5%	35,290	3.3%	21.4
Dakhliyah	Mazoon	2,250,104	7.4%	112,742	10.5%	20.0
Dhofar	DPC	2,667,434	8.8%	101,026	9.4%	26.4
Dhofar	RAEC	199,050	0.7%	6,783	0.6%	29.3
Musandam	RAEC	313,442	1.0%	14,059	1.3%	22.3
Muscat	Muscat	10,381,009	34.2%	336,523	31.3%	30.8
North Batinah	Majan	6,818,562	22.5%	125,605	11.7%	54.3
South Batinah	Mazoon	3,246,799	10.7%	138,841	12.9%	23.4
Sultanate Totals 2016		30,358,712		1,074,597		28.3
Change from 2015 (%)		5.0%		7.4%		-2.2%

Table 5

Electricity Production by System : 2013 to 2016

2013				
Electricity Production				
System	Gross MWh	% Year	Net MWh	% Year
Main Interconnected System	22,922,968	87.4%	22,558,036	87.6%
Rural Systems	685,004	2.6%	729,605	2.8%
Dhofar Power System	2,632,050	10.0%	2,467,914	9.6%
Total for 2013	26,240,023		25,755,554	
2014				
Electricity Production				
System	Gross MWh	% Year	Net MWh	% Year
Main Interconnected System	25,544,153	87.7%	24,993,101	87.8%
Rural Systems	756,712	2.6%	822,818	2.9%
Dhofar Power System	2,836,231	9.7%	2,651,662	9.3%
Total for 2014	29,137,095		28,467,582	
2015				
Electricity Production				
System	Gross MWh	% Year	Net MWh	% Year
Main Interconnected System	28,772,266	87.8%	28,333,588	88.0%
Rural Systems	863,105	2.6%	914,068	2.8%
Dhofar Power System	3,122,649	9.5%	2,941,665	9.1%
Total for 2015	32,758,020		32,189,321	
2016				
Electricity Production				
System	Gross MWh	% Year	Net MWh	% Year
Main Interconnected System	30,039,357	87.8%	29,548,736	87.9%
Rural Systems	940,008	2.7%	994,557	3.0%
Dhofar Power System	3,230,297	9.4%	3,057,168	9.1%
Total for 2016	34,209,662		33,600,461	

Table 6

Electricity Production by System and Company : 2015 & 2016

Electricity Production				
2015	Gross MWh	% Oman	Net MWh	% Oman
A: Main Interconnected System				
ACWA Power Barka SAOG	3,332,758	10.2%	3,066,619	9.5%
Al Batinah PC SAOC	4,243,317	13.0%	4,156,640	12.9%
Al Ghubrah SAOC	1,950,878	6.0%	1,791,029	5.6%
Al Kamil SAOG	584,968	1.8%	578,043	1.8%
Al Rusail SAOG	3,682,283	11.2%	3,654,459	11.4%
Al Suwadi PC SAOC	3,928,018	12.0%	3,834,487	11.9%
Phoenix Power Company SAOC	4,390,644	13.4%	4,390,472	13.6%
PWP other purchases			657,289	2.0%
SMN Barka SAOG	1,337,919	4.1%	1,151,492	3.6%
Sohar Power Company SAOG	3,602,622	11.0%	3,345,730	10.4%
UPC Manah SAOG	1,303,166	4.0%	1,293,871	4.0%
Wadi Jizzi SAOC	415,692	1.3%	413,458	1.3%
MIS sub-total	28,772,266	87.8%	28,333,588	88.0%
B: Rural Systems				
Bahwan Astonfield Solar Power LLC	358	0.0%	332	0.0%
RAEC purchases from PDO			107,045	0.3%
RAEC SAOC	862,747	2.6%	806,691	2.5%
Rural Systems sub-total	863,105	2.6%	914,068	2.8%
C: Dhofar Power System				
DGC SAOC	1,079,521	3.3%	1,065,900	3.3%
PWP other purchases	0	0.0%	2,429	0.0%
SembcorpSalalah SAOC	2,043,128	6.2%	1,873,337	5.8%
Dhofar System sub-total	3,122,649	9.5%	2,941,665	9.1%
Totals for 2015	32,758,020	100%	32,189,321	100%

Electricity Production				
2016	Gross MWh	% Oman	Net MWh	% Oman
A: Main Interconnected System				
ACWA Power Barka SAOG	2,888,724	8.4%	2,579,441	7.7%
Al Batinah PC SAOC	4,585,531	13.4%	4,453,037	13.3%
Al Ghubrah SAOC	2,069,241	6.0%	1,929,738	5.7%
Al Kamil SAOG	385,845	1.1%	380,840	1.1%
Al Rusail SAOG	1,809,642	5.3%	1,795,613	5.3%
Al Suwadi PC SAOC	4,123,706	12.1%	4,022,981	12.0%
Phoenix Power Company SAOC	6,424,173	18.8%	6,424,019	19.1%
PWP other purchases			659,231	2.0%
SMN Barka SAOG	2,057,455	6.0%	1,855,662	5.5%
Sohar Power Company SAOG	3,929,811	11.5%	3,697,260	11.0%
UPC Manah SAOG	1,149,906	3.4%	1,139,216	3.4%
Wadi Jizzi SAOC	615,323	1.8%	611,699	1.8%
MIS sub-total	30,039,357	87.8%	29,548,736	87.9%
% change from 2015	4.4%		4.3%	
B: Rural Systems				
Bahwan Astonfield Solar Power LLC	571	0.0%	559	0.0%
RAEC purchases from PDO			113,971	0.3%
RAEC SAOC	939,437	2.7%	880,027	2.6%
Rural Systems sub-total	940,008	2.7%	994,557	3.0%
% change from 2015	8.9%		8.8%	
C: Dhofar Power System				
DGC SAOC	735,686	2.2%	724,181	2.2%
PWP other purchases	0	0.0%	1,010	0.0%
SembcorpSalalah SAOC	2,494,611	7.3%	2,331,977	6.9%
Dhofar System sub-total	3,230,297	9.4%	3,057,168	9.1%
% change from 2015	3.4%		3.9%	
Totals for 2016	34,209,662	100%	33,600,461	100%
Actual change from 2015	1,451,642		1,411,140	
% change from 2015	4.4%		4.4%	

Table 7

Electricity Production by Region : 2015 & 2016

2015 Region	Electricity Production			
	MWh Gross	% Oman	MWh Net	% Oman
Al Dahirah	1,282	0.0%	1,246	0.0%
Al Sharqiya	5,044,591	15.4%	5,025,892	15.6%
Al Wusta	227,667	0.7%	306,651	1.0%
Dakhliyah	1,303,166	4.0%	1,293,871	4.0%
Dhofar	3,329,614	10.2%	3,163,879	9.8%
Musandam	358,212	1.1%	343,270	1.1%
Muscat	5,633,161	17.2%	5,439,879	16.9%
North Batinah	8,261,631	25.2%	8,562,036	26.6%
South Batinah	8,598,695	26.2%	8,052,598	25.0%
Totals for 2015	32,758,020		32,189,321	

2016 Region	Electricity Production			
	MWh Gross	% Oman	MWh Net	% Oman
Al Dahirah Change from 2015 (%)	1,851 44.4%	0.0%	1,814 45.6%	0.0%
Al Sharqiya Change from 2015 (%)	6,885,428 36.5%	20.1%	6,867,814 36.6%	20.4%
Al Wusta Change from 2015 (%)	245,447 7.8%	0.7%	285,985 -6.7%	0.9%
Dakhliyah Change from 2015 (%)	1,149,906 -11.8%	3.4%	1,139,216 -12.0%	3.4%
Dhofar Change from 2015 (%)	3,482,154 4.6%	10.2%	3,324,864 5.1%	9.9%
Musandam Change from 2015 (%)	365,444 2.0%	1.1%	351,928 2.5%	1.0%
Muscat Change from 2015 (%)	3,878,883 -31.1%	11.3%	3,731,029 -31.4%	11.1%
North Batinah Change from 2015 (%)	9,130,665 10.5%	26.7%	9,439,727 10.3%	28.1%
South Batinah Change from 2015 (%)	9,069,885 5.5%	26.5%	8,458,083 5.0%	25.2%
Totals for 2016	34,209,662		33,600,461	
Change from 2015 (%)	4.4%		4.4%	

Note: Net electricity production includes PWP and RAEC purchases from entities in each Region

Table 8

Electricity Production by Region and Company : 2015 & 2016

2015 Region	Company	Electricity Production			
		Gross MWh	% Oman	Net MWh	% Oman
Al Dahirah	RAEC SAOC	1,282	0.0%	1,246	0.0%
Al Sharaiya	Al Kamil SAOG	584,968	1.8%	578,043	1.8%
Al Sharaiya	Phoenix Power Company SAOC	4,390,644	13.4%	4,390,472	13.6%
Al Sharaiya	PWP other purchases			88	0.0%
Al Sharaiya	RAEC SAOC	68,979	0.2%	57,289	0.2%
Al Wusta	PWP other purchases			16,601	0.1%
Al Wusta	RAEC purchases from PDO			83,763	0.3%
Al Wusta	RAEC SAOC	227,667	0.7%	206,287	0.6%
Dakhliah	UPC Manah SAOG	1,303,166	4.0%	1,293,871	4.0%
Dhofar	Bahwan Astonfield Solar Power	358	0.0%	332	0.0%
Dhofar	DGC SAOC	1,079,521	3.3%	1,065,900	3.3%
Dhofar	PWP other purchases	0	0.0%	2,429	0.0%
Dhofar	RAEC purchases from PDO			23,283	0.1%
Dhofar	RAEC SAOC	206,608	0.6%	198,600	0.6%
Dhofar	SembcorpSalalah SAOC	2,043,128	6.2%	1,873,337	5.8%
Musandam	RAEC SAOC	358,212	1.1%	343,270	1.1%
Muscat	Al Ghubrah SAOC	1,950,878	6.0%	1,791,029	5.6%
Muscat	Al Rusail SAOG	3,682,283	11.2%	3,654,459	11.4%
Muscat	PWP other purchases			-5,608	0.0%
North Batinah	Al Batinah PC SAOC	4,243,317	13.0%	4,156,640	12.9%
North Batinah	PWP other purchases			646,208	2.0%
North Batinah	Sohar Power Company SAOG	3,602,622	11.0%	3,345,730	10.4%
North Batinah	Wadi Jizzi SAOC	415,692	1.3%	413,458	1.3%
South Batinah	ACWA Power Barka SAOG	3,332,758	10.2%	3,066,619	9.5%
South Batinah	Al Suwadi PC SAOC	3,928,018	12.0%	3,834,487	11.9%
South Batinah	SMN Barka SAOG	1,337,919	4.1%	1,151,492	3.6%
Sultanate Totals 2015		32,758,020		32,189,321	

2016 Region	Company	Electricity Production			
		Gross MWh	% Oman	Net MWh	% Oman
Al Dahirah	RAEC SAOC	1,851	0.0%	1,814	0.0%
Al Sharaiya	Al Kamil SAOG	385,845	1.1%	380,840	1.1%
Al Sharaiya	Phoenix Power Company SAOC	6,424,173	18.8%	6,424,019	19.1%
Al Sharaiya	PWP other purchases			20	0.0%
Al Sharaiya	RAEC SAOC	75,410	0.2%	62,935	0.2%
Al Wusta	PWP other purchases			-24,198	-0.1%
Al Wusta	RAEC purchases from PDO			88,169	0.3%
Al Wusta	RAEC SAOC	245,447	0.7%	222,014	0.7%
Dakhliah	UPC Manah SAOG	1,149,906	3.4%	1,139,216	3.4%
Dhofar	Bahwan Astonfield Solar Power	571	0.0%	559	0.0%
Dhofar	DGC SAOC	735,686	2.2%	724,181	2.2%
Dhofar	PWP other purchases	0	0.0%	1,010	0.0%
Dhofar	RAEC purchases from PDO			25,802	0.1%
Dhofar	RAEC SAOC	251,286	0.7%	241,335	0.7%
Dhofar	SembcorpSalalah SAOC	2,494,611	7.3%	2,331,977	6.9%
Musandam	RAEC SAOC	365,444	1.1%	351,928	1.0%
Muscat	Al Ghubrah SAOC	2,069,241	6.0%	1,929,738	5.7%
Muscat	Al Rusail SAOG	1,809,642	5.3%	1,795,613	5.3%
Muscat	PWP other purchases			5,678	0.0%
North Batinah	Al Batinah PC SAOC	4,585,531	13.4%	4,453,037	13.3%
North Batinah	PWP other purchases			677,731	2.0%
North Batinah	Sohar Power Company SAOG	3,929,811	11.5%	3,697,260	11.0%
North Batinah	Wadi Jizzi SAOC	615,323	1.8%	611,699	1.8%
South Batinah	ACWA Power Barka SAOG	2,888,724	8.4%	2,579,441	7.7%
South Batinah	Al Suwadi PC SAOC	4,123,706	12.1%	4,022,981	12.0%
South Batinah	SMN Barka SAOG	2,057,455	6.0%	1,855,662	5.5%
Sultanate Totals 2016		34,209,662		33,600,461	
Change from 2015 (%)		4.4%		4.4%	

Table 9i

Monthly Electricity Production by System : MIS 2013 to 2016

2013		Electricity Production			
System	Month	Gross GWh	% Year	Net GWh	% Year
MIS	Jan-13	1,307.3	5.7%	1,234.0	5.5%
MIS	Feb-13	1,222.6	5.3%	1,157.4	5.1%
MIS	Mar-13	1,584.6	6.9%	1,514.9	6.7%
MIS	Apr-13	1,813.3	7.9%	1,727.3	7.7%
MIS	May-13	2,228.2	9.7%	2,196.6	9.7%
MIS	Jun-13	2,482.2	10.8%	2,517.8	11.2%
MIS	Jul-13	2,695.0	11.8%	2,643.1	11.7%
MIS	Aug-13	2,502.9	10.9%	2,468.7	10.9%
MIS	Sep-13	2,293.1	10.0%	2,331.0	10.3%
MIS	Oct-13	2,143.7	9.4%	2,116.0	9.4%
MIS	Nov-13	1,461.1	6.4%	1,427.6	6.3%
MIS	Dec-13	1,188.9	5.2%	1,223.8	5.4%
2013 Totals		22,923.0		22,558.0	

2014		Electricity Production			
System	Month	Gross GWh	% Year	Net GWh	% Year
MIS	Jan-14	1,333.9	5.2%	1,257.8	5.0%
MIS	Feb-14	1,227.3	4.8%	1,162.2	4.7%
MIS	Mar-14	1,621.5	6.3%	1,542.4	6.2%
MIS	Apr-14	2,090.3	8.2%	2,023.7	8.1%
MIS	May-14	2,528.5	9.9%	2,561.9	10.3%
MIS	Jun-14	2,927.7	11.5%	2,913.0	11.7%
MIS	Jul-14	2,968.7	11.6%	2,957.2	11.8%
MIS	Aug-14	2,655.7	10.4%	2,693.8	10.8%
MIS	Sep-14	2,694.0	10.5%	2,602.9	10.4%
MIS	Oct-14	2,359.0	9.2%	2,268.9	9.1%
MIS	Nov-14	1,694.8	6.6%	1,622.0	6.5%
MIS	Dec-14	1,442.8	5.6%	1,387.3	5.6%
2014 Totals		25,544.2		24,993.1	

Table 9i

Monthly Electricity Production by System : MIS 2013 to 2016

2015		Electricity Production			
System	Month	Gross GWh	% Year	Net GWh	% Year
MIS	Jan-15	1,506.8	5.2%	1,435.1	5.1%
MIS	Feb-15	1,532.5	5.3%	1,460.0	5.2%
MIS	Mar-15	1,900.3	6.6%	1,806.5	6.4%
MIS	Apr-15	2,450.7	8.5%	2,365.9	8.4%
MIS	May-15	2,952.0	10.3%	2,921.2	10.3%
MIS	Jun-15	3,044.7	10.6%	3,066.1	10.8%
MIS	Jul-15	3,220.9	11.2%	3,257.4	11.5%
MIS	Aug-15	3,041.4	10.6%	3,073.0	10.8%
MIS	Sep-15	2,819.9	9.8%	2,833.6	10.0%
MIS	Oct-15	2,562.7	8.9%	2,548.7	9.0%
MIS	Nov-15	2,127.3	7.4%	2,041.0	7.2%
MIS	Dec-15	1,613.1	5.6%	1,525.0	5.4%
2015 Totals		28,772.3		28,333.6	

2016		Electricity Production			
System	Month	Gross GWh	% Year	Net GWh	% Year
MIS	Jan-16	1,696.5	5.6%	1,612.5	5.5%
MIS	Feb-16	1,642.1	5.5%	1,562.0	5.3%
MIS	Mar-16	2,016.1	6.7%	1,926.6	6.5%
MIS	Apr-16	2,257.3	7.5%	2,167.8	7.3%
MIS	May-16	2,981.2	9.9%	3,108.5	10.5%
MIS	Jun-16	3,115.5	10.4%	3,275.4	11.1%
MIS	Jul-16	3,463.9	11.5%	3,329.5	11.3%
MIS	Aug-16	3,378.9	11.2%	3,224.8	10.9%
MIS	Sep-16	2,869.9	9.6%	2,854.2	9.7%
MIS	Oct-16	2,635.1	8.8%	2,664.9	9.0%
MIS	Nov-16	2,069.7	6.9%	1,994.7	6.8%
MIS	Dec-16	1,913.0	6.4%	1,828.0	6.2%
2016 Totals		30,039.4		29,548.7	

Table 9ii

Monthly Electricity Production by System : Rural Systems 2013 to 2016

2013		Electricity Production			
System	Month	Gross GWh	% Year	Net GWh	% Year
Rural Systems	Jan-13	33.8	4.9%	30.2	4.1%
Rural Systems	Feb-13	32.8	4.8%	29.6	4.1%
Rural Systems	Mar-13	45.3	6.6%	41.6	5.7%
Rural Systems	Apr-13	57.7	8.4%	53.6	7.3%
Rural Systems	May-13	72.7	10.6%	68.3	9.4%
Rural Systems	Jun-13	70.4	10.3%	66.1	9.1%
Rural Systems	Jul-13	72.9	10.6%	68.3	9.4%
Rural Systems	Aug-13	70.9	10.4%	66.4	9.1%
Rural Systems	Sep-13	70.8	10.3%	66.2	9.1%
Rural Systems	Oct-13	67.2	9.8%	62.7	8.6%
Rural Systems	Nov-13	48.8	7.1%	44.7	6.1%
Rural Systems	Dec-13	41.6	6.1%	131.9	18.1%
2013 Totals		685.0		729.6	

2014		Electricity Production			
System	Month	Gross GWh	% Year	Net GWh	% Year
Rural Systems	Jan-14	35.9	4.7%	37.7	4.6%
Rural Systems	Feb-14	35.0	4.6%	40.9	5.0%
Rural Systems	Mar-14	48.2	6.4%	68.0	8.3%
Rural Systems	Apr-14	64.5	8.5%	68.1	8.3%
Rural Systems	May-14	78.7	10.4%	84.0	10.2%
Rural Systems	Jun-14	79.1	10.5%	83.9	10.2%
Rural Systems	Jul-14	83.3	11.0%	89.3	10.8%
Rural Systems	Aug-14	78.5	10.4%	76.4	9.3%
Rural Systems	Sep-14	78.9	10.4%	75.2	9.1%
Rural Systems	Oct-14	74.6	9.9%	92.3	11.2%
Rural Systems	Nov-14	54.5	7.2%	58.0	7.1%
Rural Systems	Dec-14	45.5	6.0%	49.2	6.0%
2014 Totals		756.7		822.8	

Table 9ii

Monthly Electricity Production by System : Rural Systems 2013 to 2016

2015		Electricity Production			
System	Month	Gross GWh	% Year	Net GWh	% Year
Rural Systems	Jan-15	40.7	4.7%	40.6	4.4%
Rural Systems	Feb-15	41.9	4.9%	41.8	4.6%
Rural Systems	Mar-15	54.1	6.3%	53.6	5.9%
Rural Systems	Apr-15	74.5	8.6%	84.3	9.2%
Rural Systems	May-15	90.9	10.5%	97.3	10.6%
Rural Systems	Jun-15	91.9	10.6%	98.4	10.8%
Rural Systems	Jul-15	90.4	10.5%	96.3	10.5%
Rural Systems	Aug-15	89.4	10.4%	95.3	10.4%
Rural Systems	Sep-15	89.1	10.3%	94.4	10.3%
Rural Systems	Oct-15	86.6	10.0%	92.2	10.1%
Rural Systems	Nov-15	62.7	7.3%	65.8	7.2%
Rural Systems	Dec-15	50.9	5.9%	54.1	5.9%
2015 Totals		863.1		914.1	

2016		Electricity Production			
System	Month	Gross GWh	% Year	Net GWh	% Year
Rural Systems	Jan-16	48.6	5.2%	50.3	5.1%
Rural Systems	Feb-16	48.0	5.1%	49.9	5.0%
Rural Systems	Mar-16	69.1	7.3%	72.9	7.3%
Rural Systems	Apr-16	76.3	8.1%	79.6	8.0%
Rural Systems	May-16	101.1	10.8%	107.7	10.8%
Rural Systems	Jun-16	99.6	10.6%	105.4	10.6%
Rural Systems	Jul-16	96.6	10.3%	102.3	10.3%
Rural Systems	Aug-16	94.6	10.1%	98.8	9.9%
Rural Systems	Sep-16	94.7	10.1%	99.0	10.0%
Rural Systems	Oct-16	86.2	9.2%	94.7	9.5%
Rural Systems	Nov-16	66.5	7.1%	70.0	7.0%
Rural Systems	Dec-16	58.9	6.3%	64.0	6.4%
2016 Totals		940.0		994.6	

Table 9iii

Monthly Electricity Production by System : Dhofar Power Systems 2013 to 2016

2013		Electricity Production			
System	Month	Gross GWh	% Year	Net GWh	% Year
Dhofar Power System	Jan-13	158.1	6.0%	150.8	6.1%
Dhofar Power System	Feb-13	152.4	5.8%	144.9	5.9%
Dhofar Power System	Mar-13	200.6	7.6%	192.4	7.8%
Dhofar Power System	Apr-13	236.5	9.0%	225.1	9.1%
Dhofar Power System	May-13	281.6	10.7%	264.2	10.7%
Dhofar Power System	Jun-13	260.2	9.9%	244.7	9.9%
Dhofar Power System	Jul-13	214.7	8.2%	198.7	8.1%
Dhofar Power System	Aug-13	230.2	8.7%	212.8	8.6%
Dhofar Power System	Sep-13	239.2	9.1%	224.5	9.1%
Dhofar Power System	Oct-13	246.9	9.4%	229.5	9.3%
Dhofar Power System	Nov-13	219.6	8.3%	203.3	8.2%
Dhofar Power System	Dec-13	192.1	7.3%	176.9	7.2%
2013 Totals		2,632.1		2,467.9	

2014		Electricity Production			
System	Month	Gross GWh	% Year	Net GWh	% Year
Dhofar Power System	Jan-14	172.6	6.1%	157.9	6.0%
Dhofar Power System	Feb-14	169.2	6.0%	155.6	5.9%
Dhofar Power System	Mar-14	221.0	7.8%	205.7	7.8%
Dhofar Power System	Apr-14	254.1	9.0%	238.6	9.0%
Dhofar Power System	May-14	291.5	10.3%	274.3	10.3%
Dhofar Power System	Jun-14	291.4	10.3%	273.9	10.3%
Dhofar Power System	Jul-14	241.4	8.5%	225.5	8.5%
Dhofar Power System	Aug-14	243.0	8.6%	228.6	8.6%
Dhofar Power System	Sep-14	255.1	9.0%	240.1	9.1%
Dhofar Power System	Oct-14	259.9	9.2%	244.2	9.2%
Dhofar Power System	Nov-14	231.1	8.1%	216.5	8.2%
Dhofar Power System	Dec-14	205.9	7.3%	190.8	7.2%
2014 Totals		2,836.2		2,651.7	

Table 9iii

Monthly Electricity Production by System : Dhofar Power Systems 2013 to 2016

2015		Electricity Production			
System	Month	Gross GWh	% Year	Net GWh	% Year
Dhofar Power System	Jan-15	185.9	6.0%	169.8	5.8%
Dhofar Power System	Feb-15	181.1	5.8%	168.3	5.7%
Dhofar Power System	Mar-15	235.5	7.5%	220.9	7.5%
Dhofar Power System	Apr-15	271.2	8.7%	255.4	8.7%
Dhofar Power System	May-15	319.8	10.2%	303.6	10.3%
Dhofar Power System	Jun-15	320.2	10.3%	303.6	10.3%
Dhofar Power System	Jul-15	279.4	8.9%	262.7	8.9%
Dhofar Power System	Aug-15	277.5	8.9%	262.3	8.9%
Dhofar Power System	Sep-15	283.1	9.1%	268.8	9.1%
Dhofar Power System	Oct-15	292.7	9.4%	278.0	9.5%
Dhofar Power System	Nov-15	259.2	8.3%	244.1	8.3%
Dhofar Power System	Dec-15	217.1	7.0%	204.1	6.9%
2015 Totals		3,122.6		2,941.7	

2016		Electricity Production			
System	Month	Gross GWh	% Year	Net GWh	% Year
Dhofar Power System	Jan-16	211.1	6.5%	196.1	6.4%
Dhofar Power System	Feb-16	197.8	6.1%	183.6	6.0%
Dhofar Power System	Mar-16	271.8	8.4%	256.8	8.4%
Dhofar Power System	Apr-16	308.7	9.6%	283.9	9.3%
Dhofar Power System	May-16	351.1	10.9%	332.7	10.9%
Dhofar Power System	Jun-16	311.1	9.6%	304.5	10.0%
Dhofar Power System	Jul-16	261.1	8.1%	243.2	8.0%
Dhofar Power System	Aug-16	277.7	8.6%	262.7	8.6%
Dhofar Power System	Sep-16	260.7	8.1%	263.8	8.6%
Dhofar Power System	Oct-16	279.5	8.7%	264.6	8.7%
Dhofar Power System	Nov-16	258.0	8.0%	237.3	7.8%
Dhofar Power System	Dec-16	241.7	7.5%	228.1	7.5%
2016 Totals		3,230.3		3,057.2	

Table 10 i

Quarterly Electricity Production by System : 2013 to 2016

<i>Electricity Production</i>					
<i>System</i>	<i>Period</i>	<i>Gross GWh</i>	<i>% Year</i>	<i>Net GWh</i>	<i>% Year</i>
MIS	Qtr 1-13	4,114.5	17.9%	3,906.3	17.3%
MIS	Qtr 2-13	6,523.7	28.5%	6,441.7	28.6%
MIS	Qtr 3-13	7,491.1	32.7%	7,442.7	33.0%
MIS	Qtr 4-13	4,793.7	20.9%	4,767.4	21.1%
2013 Totals		22,923.0		22,558.0	
MIS	Qtr 1-14	4,182.7	16.4%	3,962.5	15.9%
MIS	Qtr 2-14	7,546.5	29.5%	7,498.6	30.0%
MIS	Qtr 3-14	8,318.4	32.6%	8,253.8	33.0%
MIS	Qtr 4-14	5,496.7	21.5%	5,278.2	21.1%
2014 Totals		25,544.2		24,993.1	
MIS	Qtr 1-15	4,939.5	17.2%	4,701.6	16.6%
MIS	Qtr 2-15	8,447.4	29.4%	8,353.2	29.5%
MIS	Qtr 3-15	9,082.2	31.6%	9,164.0	32.3%
MIS	Qtr 4-15	6,303.1	21.9%	6,114.8	21.6%
2015 Totals		28,772.3		28,333.6	
MIS	Qtr 1-16	5,354.8	17.8%	5,101.1	17.3%
MIS	Qtr 2-16	8,354.0	27.8%	8,551.7	28.9%
MIS	Qtr 3-16	9,712.7	32.3%	9,408.4	31.8%
MIS	Qtr 4-16	6,617.8	22.0%	6,487.5	22.0%
2016 Totals		30,039.4		29,548.7	

Table 10 ii

Quarterly Electricity Production by System : 2013 to 2016

<i>Electricity Production</i>					
<i>System</i>	<i>Period</i>	<i>Gross GWh</i>	<i>% Year</i>	<i>Net GWh</i>	<i>% Year</i>
Rural Systems	Qtr 1-13	112.0	16.3%	101.4	13.9%
Rural Systems	Qtr 2-13	200.8	29.3%	187.9	25.8%
Rural Systems	Qtr 3-13	214.6	31.3%	200.9	27.5%
Rural Systems	Qtr 4-13	157.6	23.0%	239.3	32.8%
2013 Totals		685.0		729.6	
Rural Systems	Qtr 1-14	119.1	15.7%	146.6	17.8%
Rural Systems	Qtr 2-14	222.3	29.4%	236.0	28.7%
Rural Systems	Qtr 3-14	240.8	31.8%	240.8	29.3%
Rural Systems	Qtr 4-14	174.6	23.1%	199.4	24.2%
2014 Totals		756.7		822.8	
Rural Systems	Qtr 1-15	136.7	15.8%	136.0	14.9%
Rural Systems	Qtr 2-15	257.4	29.8%	279.9	30.6%
Rural Systems	Qtr 3-15	268.9	31.2%	286.1	31.3%
Rural Systems	Qtr 4-15	200.2	23.2%	212.1	23.2%
2015 Totals		863.1		914.1	
Rural Systems	Qtr 1-16	165.6	17.6%	173.0	17.4%
Rural Systems	Qtr 2-16	277.0	29.5%	292.7	29.4%
Rural Systems	Qtr 3-16	285.8	30.4%	300.1	30.2%
Rural Systems	Qtr 4-16	211.6	22.5%	228.7	23.0%
2016 Totals		940.0		994.6	

Table 10 iii

Quarterly Electricity Production by System : 2013 to 2016

<i>Electricity Production</i>					
<i>System</i>	<i>Period</i>	<i>Gross GWh</i>	<i>% Year</i>	<i>Net GWh</i>	<i>% Year</i>
Dhofar Power System	Qtr 1-13	511.2	19.4%	488.2	19.8%
Dhofar Power System	Qtr 2-13	778.3	29.6%	734.0	29.7%
Dhofar Power System	Qtr 3-13	684.1	26.0%	636.1	25.8%
Dhofar Power System	Qtr 4-13	658.6	25.0%	609.6	24.7%
2013 Totals		2,632.1		2,467.9	
Dhofar Power System	Qtr 1-14	562.8	19.8%	519.2	19.6%
Dhofar Power System	Qtr 2-14	837.0	29.5%	786.7	29.7%
Dhofar Power System	Qtr 3-14	739.5	26.1%	694.2	26.2%
Dhofar Power System	Qtr 4-14	696.9	24.6%	651.5	24.6%
2014 Totals		2,836.2		2,651.7	
Dhofar Power System	Qtr 1-15	602.5	19.3%	559.0	19.0%
Dhofar Power System	Qtr 2-15	911.1	29.2%	862.7	29.3%
Dhofar Power System	Qtr 3-15	840.1	26.9%	793.8	27.0%
Dhofar Power System	Qtr 4-15	769.0	24.6%	726.2	24.7%
2015 Totals		3,122.6		2,941.7	
Dhofar Power System	Qtr 1-16	680.6	21.1%	636.4	20.8%
Dhofar Power System	Qtr 2-16	970.9	30.1%	921.1	30.1%
Dhofar Power System	Qtr 3-16	799.6	24.8%	769.7	25.2%
Dhofar Power System	Qtr 4-16	779.2	24.1%	729.9	23.9%
2016 Totals		3,230.3		3,057.2	

Table 11

RAEC Capacity, System Peak demands, Electricity and Water Production, and Fuel consumption by Region

				Generating Capacity			Water Capacity			System Peak Demands, Production & Fuel Consumption						
2016				Installed	Derated	Num	Installed	Num	@	System Peak kW	Demand margin 1	Gross MWh	Net MWh	Gross 000'm3	Net 000'm3	Diesel 000'Ltrs
RSNum	Facility	Type	Start Year	kW	kW	units	m3/day	units	Ref SC							
Al Dahirah																
02/020	Masrooq	Electricity	1994	1,700	1,400	4			50oC	480	65.7%	1,851	1,814			621
Totals for 1 Systems in Al Dahirah				1,700	1,400	4						1,851	1,814			621
Al Sharqiya																
02/019	Masirah	Cogen	1976	20,900	8,000	13	6,100	10	50oC	14,360	-79.5%	75,410	62,935	1,508	1,362	20,444
Totals for 1 Systems in Al Sharqiya				20,900	8,000	13	6,100	10				75,410	62,935	1,508	1,362	20,444
Al Wusta																
02/001	AbuMudabi	Cogen	1985				200	3						45	44	0
02/027	Sawgrah	Cogen	1998				250	2	50oC					42	42	0
02/037	Al Duqm (new)	Cogen	2010	67,000	53,700	4	8,000	4	50oC	25,700	52.1%	131,114	112,574	1,706	1,652	35,056
02/005	Al Khaluf	Electricity	2007	2,500	2,000	3			50oC	963	51.9%	4,115	3,972			1,259
02/006	Al Khulaima	Electricity	2004	5,000	4,000	6			50oC	294	92.7%	12,864	12,580			3,645
02/010	AlNajdah	Electricity	2007	2,200	1,800	3			50oC	1,153	35.9%	4,146	4,044			1,324
02/016	Hij	Electricity	1999	11,600	9,300	7			50oC	11,500	-23.7%	46,509	46,141			13,513
02/017	Hitam	Electricity	2007	2,900	2,300	6			50oC	1,190	48.3%	5,697	5,393			1,775
02/030	Surab	Electricity	2006	3,200	2,600	4			50oC	1,630	37.3%	6,404	6,226			2,118
02/045	Dhafrat	Electricity	2009	1,900	1,500	4			50oC	1,190	20.7%	3,505	3,322			1,386
02/046	Al Khadra	Electricity	2011	12,500	10,000	5			50oC	5,300	47.0%	26,281	24,104			7,545
02/057	Nehida	Electricity	2016						50oC			188	143			363
02/058	Wadi Aswad (P)	Electricity	2016						50oC			4,624	3,516			1,347
Totals for 13 Systems in Al Wusta				108,800	87,200	42	8,450	9				245,447	222,014	1,794	1,738	69,332



Table 11

RAEC Capacity, System Peak demands, Electricity and Water Production, and Fuel consumption by Region

2016		Generating Capacity				Water Capacity		System Peak Demands, Production & Fuel Consumption								
RSNum	Facility	Type	Start Year	Installed kW	Derated kW	Num units	Installed m3/day	Num units	@ Ref SC	System Peak kW	Demand margin 1	Gross MWh	Net MWh	Gross 000'm3	Net 000'm3	Diesel 000'Ltrs
Dhofar																
01/001	Al Halaniyat	Cogen	1987	1,100	800	3	198	3	500C	390	51.3%	1,962	1,293	49	49	577
01/002	Al Mathfa	Electricity	2002	700	500	4			500C	228	54.4%	800	795			353
01/004	Andat	Electricity	2011	1,500	1,200	4			500C	810	32.5%	2,948	2,937			872
01/007	Ayun	Electricity	2000	750	600	4			500C	236	60.7%	747	739			304
01/008	Barbazum	Electricity	2000	1,700	1,300	5			500C	595	54.2%	2,271	2,254			692
01/012	Dhahabun	Electricity	2000	2,400	1,600	5			500C	1,533	4.2%	6,190	6,178			2,056
01/014	Fatkhath	Electricity	2002	600	450	4			500C	240	46.7%	1,054	1,047			378
01/016	Hirweeb	Electricity	2001	1,300	1,000	4			500C	1,090	-9.0%	3,699	3,675			1,120
01/019	Mahwice	Electricity	2002	400	300	4			500C	221	26.3%	868	861			307
01/020	Maqshan	Electricity	2001	1,800	1,400	5			500C	750	46.4%	2,814	2,777			973
01/021	Mazyunah	Electricity	2000	9,000	7,200	6			500C	7,010	2.6%	30,114	28,135			8,312
01/023	Mitan	Electricity	2001	2,200	1,800	5			500C	950	47.2%	3,763	3,741			1,164
01/024	Mothorah	Electricity	2006	600	500	3			500C	410	18.0%	2,111	2,060			722
01/032	Saih Alkirat	Electricity	2006	32,400	10,900	9			500C	23,720	-117.6%	107,213	102,859			33,169
01/035	Shahb Asayb	Electricity	2000	11,000	8,800	7			500C	9,090	-3.3%	41,473	40,543			10,799
01/037	Sharbatat	Electricity	1998	3,700	2,600	6			500C	1,350	48.1%	5,188	5,119			1,583
01/040	Tushnat	Electricity	2001	900	700	3			500C	355	49.3%	1,455	1,437			467
01/046	Mudhai (new)	Electricity	2011	3,900	3,100	6			500C	1,900	38.7%	8,011	7,496			2,448
01/047	Hasik (new)	Electricity	2012	5,000	4,000	6			500C	1,746	56.4%	8,056	7,740			2,362
01/052	Saih Al Khirat (N	Electricity	2016	48,700	39,000	6			500C	19,500	50.0%	20,549	19,649			5,009
Totals for 20 Systems in Dhofar				129,650	87,750	99	198	3				251,286	241,335	49	49	73,669

Table 11

RAEC Capacity, System Peak demands, Electricity and Water Production, and Fuel consumption by Region

2016		Generating Capacity				Water Capacity			System Peak Demands, Production & Fuel Consumption							
RSNum	Facility	Type	Start Year	Installed kW	Derated kW	Num units	Installed m3/day	Num units	@ Ref SC	System Peak kW	Demand margin 1	Gross MWh	Net MWh	Gross 000'm3	Net 000'm3	Diesel 000'Ltrs
Musandam																
03/006	Kumzar	Cogen	1984	468	374	1	450	3	500C	260	30.5%	20	8	74	73	6
03/002	Dibba	Electricity	1978	22,030	8,800	9			500C	19,400	-120.5%	88,714	88,025			25,615
03/005	Khasab	Electricity	1982	66,100	40,300	13			500C	54,400	-35.0%	249,794	238,419			67,016
03/007	Madha	Electricity	1982	11,200	8,900	6			500C	6,260	29.7%	26,915	25,477			8,501
Totals for 4 Systems in Musandam				99,798	58,374	29	450	3				365,444	351,928	74	73	101,138
Totals for 39 RAEC Production Systems				360,848	242,724	187	15,198	25				939,437	880,027	3,424	3,221	265,204

note 1 Saih Alkirat power station (01/032) was closed in November 2016 and was displaced by the new Saih Al Kirat (01/052) was commissioned on October 2016.

note 2 Rental generation supported systems with negative demand margins.
note 3 Wadi Aswad (02/058) and Nehida (02/057) systems are temporary rental generation units.

Generating Capacity				Water Capacity		
2016 Regional Summary	Installed		Derated	Num	Installed	Num
	kW	kW	kW	units	m3/day	units
	1,700	1,400		4		
	20,900	8,000		13	6,100	10
	108,800	87,200		42	8,450	9
	129,650	87,750		99	198	3
	99,798	58,374		29	450	3
Totals for 39 RAEC Production System						
	360,848	242,724	187	15,198	25	

Production & Fuel Consumption						
Gross MWh	Net MWh	Gross 000' m3	Net 000'm3	Diesel 000'Ltrs		
1,851	1,814				621	
75,410	62,935	1,508	1,362		20,444	
245,447	222,014	1,794	1,738		69,332	
251,286	241,335	49	49		73,669	
365,444	351,928	74	73		101,138	
939,437	880,027	3,424	3,221		265,204	

Table 12

Technical and non-technical Losses by System : 2009 to 2016

Main Interconnected System									% Changes 2015-2016
GWh	2009	2010	2011	2012	2013	2014	2015	2016	
Sent out Generation:	15,530.2	16,552.4	18,385.5	21,022.7	21,998.3	24,462.9	27,676.3	28,889.5	4.4%
'Other' Purchases (note 1):	188.6	302.6	564.8	596.4	559.7	530.2	657.3	659.2	0.3%
GWh entering systems:	15,718.8	16,855.0	18,950.3	21,619.1	22,558.0	24,993.1	28,333.6	29,548.7	4.3%
Supply to Customers:	12,713.6	14,121.6	16,374.5	18,502.2	20,021.0	22,097.7	25,512.6	26,842.6	5.2%
Total Losses %	19.1%	16.2%	13.6%	14.4%	11.2%	11.6%	10.0%	9.2%	-0.8%pp

Rural Systems									% Changes 2015-2016
GWh	2009	2010	2011	2012	2013	2014	2015	2016	
Sent out Generation:	370.2	412.8	470.1	556.0	635.3	698.1	806.7	880.0	9.1%
'Other' Purchases (note 1):	40.2	48.7	59.9	74.7	94.3	124.7	107.4	114.5	6.7%
GWh entering systems:	410.5	461.5	530.0	630.7	729.6	822.8	914.1	994.6	8.8%
Supply to Customers (note 2):	368.0	420.1	468.9	559.4	650.9	747.1	816.4	848.7	3.9%
Total Losses %	10.3%	9.0%	11.5%	11.3%	10.8%	9.2%	10.7%	14.7%	4.0%pp

Dhofar Power System									% Changes 2015-2016
GWh	2009	2010	2011	2012	2013	2014	2015	2016	
Sent out Generation:	1,688.4	1,819.0	1,907.3	2,269.3	2,467.9	2,651.7	2,939.2	3,056.2	4.0%
'Other' Purchases (note 1):	45.7	72.4	26.4	0.0	0.0	0.0	2.4	1.0	-58.4%
GWh entering systems:	1,734.1	1,891.4	1,933.7	2,269.3	2,467.9	2,651.7	2,941.7	3,057.2	3.9%
Supply to Customers:	1,401.5	1,590.8	1,668.9	1,896.6	2,118.8	2,327.3	2,583.4	2,667.4	3.3%
Total Losses %	19.2%	15.9%	13.7%	16.4%	14.1%	12.2%	12.2%	12.7%	0.57% pp

Note 1: MIS "Other" purchases are PWP purchases from MIS connected Exemption Holders, Rental Generation and Interconnection with UAE;
Rural Systems Other purchases are purchases from PDO and Bahwan Aston Field Solar Power LLC; and
Dhofar Other purchases are units purchased by PWP from RAEC (2009-2011) and PDO (2015-2016).



Water Sector Statistics

Table 1

Water Production by Zone : 2013 to 2016

2013				
Zone	Water Production			
	Gross m3	% Year	Net m3	% Year
Interconnected & Sharqiyah Zones	146,511,925	88.5%	142,563,235	88.3%
Rural Zones	2,291,035	1.4%	2,160,352	1.3%
Dhofar Zone	16,753,619	10.1%	16,753,619	10.4%
Total for 2013	165,556,579		161,477,206	
2014				
Zone	Water Production			
	Gross m3	% Year	Net m3	% Year
Interconnected & Sharqiyah Zones	184,975,345	87.7%	181,973,294	87.5%
Rural Zones	2,397,487	1.1%	2,236,582	1.1%
Dhofar Zone	23,652,716	11.2%	23,652,716	11.4%
Total for 2014	211,025,548		207,862,592	
2015				
Zone	Water Production			
	Gross m3	% Year	Net m3	% Year
Interconnected & Sharqiyah Zones	224,926,710	90.1%	221,891,664	90.1%
Rural Zones	2,801,593	1.1%	2,627,190	1.1%
Dhofar Zone	21,803,963	8.7%	21,803,963	8.9%
Total for 2015	249,532,266		246,322,817	
2016				
Zone	Water Production			
	Gross m3	% Year	Net m3	% Year
Interconnected & Sharqiyah Zones	268,443,881	90.9%	264,243,474	90.9%
Rural Zones	3,424,350	1.2%	3,221,419	1.1%
Dhofar Zone	23,331,493	7.9%	23,331,493	8.0%
Total for 2016	295,199,724		290,796,386	

Table 2

Water Production by Zone and Company : 2015 to 2016

2015	Water Production			
	Gross m3	% Oman	Net m3	% Oman
A: Interconnected & Sharqiyah Zones				
ACWA Power Barka SAOG	49,920,039	20.0%	49,786,907	20.2%
Al Ghubrah SAOC	42,935,802	17.2%	42,144,509	17.1%
Muscat City Desalination Company SAOC	11,609,566	4.7%	11,609,566	4.7%
Sharqiyah Desalination Company SAOG	27,519,744	11.0%	27,462,520	11.1%
SMN Barka SAOG	43,229,610	17.3%	43,100,670	17.5%
Sohar Power Company SAOG	49,711,949	19.9%	47,787,492	19.4%
ISZ sub-total	224,926,710	90.1%	221,891,664	90.1%
B: Rural Zones				
RAEC SAOC	2,801,593	1.1%	2,627,190	1.1%
Rural Zones sub-total	2,801,593	1.1%	2,627,190	1.1%
C: Dhofar Zone				
SembcorpSalalah SAOC	21,803,963	8.7%	21,803,963	8.9%
Dhofar Zone sub-total	21,803,963	8.7%	21,803,963	8.9%
Totals for 2015	249,532,266	100%	246,322,817	100%
2016	Water Production			
	Gross m3	% Oman	Net m3	% Oman
A: Interconnected & Sharqiyah Zones				
ACWA Power Barka SAOG	64,676,368	21.9%	65,447,411	22.5%
Al Ghubrah SAOC	33,572,085	11.4%	32,766,177	11.3%
Muscat City Desalination Company SAOC	53,955,496	18.3%	53,955,496	18.6%
Sharqiyah Desalination Company SAOG	31,366,990	10.6%	29,116,162	10.0%
SMN Barka SAOG	38,996,994	13.2%	38,830,078	13.4%
Sohar Power Company SAOG	45,875,948	15.5%	44,128,150	15.2%
ISZ sub-total	268,443,881	90.9%	264,243,474	90.9%
% change from 2015	19.3%		19.1%	
B: Rural Zones				
RAEC SAOC	3,424,350	1.2%	3,221,419	1.1%
Rural Zones sub-total	3,424,350	1.2%	3,221,419	1.1%
% change from 2015	22.2%		22.6%	
C: Dhofar Zone				
SembcorpSalalah SAOC	23,331,493	7.9%	23,331,493	8.0%
Dhofar Zone sub-total	23,331,493	7.9%	23,331,493	8.0%
% change from 2015	7.0%		7.0%	
Totals for 2016	295,199,724	100%	290,796,386	100%
Actual change from 2015	45,667,458		44,473,569	
% change from 2015	18.3%		18.1%	

Table 3

Water Production by Zone Region : 2015 to 2016

2015 Region	Water Production			
	m3 Gross	% Oman	m3 Net	% Oman
Al Sharqiya	27,519,744	11.0%	27,462,520	11.1%
Al Wusta	2,696,472	1.1%	2,523,574	1.0%
Dhofar	21,838,044	8.8%	21,837,641	8.9%
Musandam	71,040	0.0%	69,938	0.0%
Muscat	54,545,368	21.9%	53,754,075	21.8%
North Batinah	49,711,949	19.9%	47,787,492	19.4%
South Batinah	93,149,649	37.3%	92,887,577	37.7%
Totals for 2015	249,532,266		246,322,817	

2016 Region	Water Production			
	m3 Gross	% Oman	m3 Net	% Oman
Al Sharqiya Change from 2015 (%)	31,366,990 14.0%	10.6%	29,116,162 6.0%	10.0%
Al Wusta Change from 2015 (%)	3,301,357 22.4%	1.1%	3,099,740 22.8%	1.1%
Dhofar Change from 2015 (%)	23,380,822 7.1%	7.9%	23,380,496 7.1%	8.0%
Musandam Change from 2015 (%)	73,664 3.7%	0.0%	72,676 3.9%	0.0%
Muscat Change from 2015 (%)	87,527,581 60.5%	29.7%	86,721,673 61.3%	29.8%
North Batinah Change from 2015 (%)	45,875,948 -7.7%	15.5%	44,128,150 -7.7%	15.2%
South Batinah Change from 2015 (%)	103,673,362 11.3%	35.1%	104,277,489 12.3%	35.9%
Totals for 2016 Change from 2015 (%)	295,199,724 18.3%		290,796,386 18.1%	

Table 4

Water Production by Region and Company : 2015 to 2016

2015 Region	Company	Gross m3	% Oman	Water Production Net m3	% Oman
Al Sharaiva	RAEC SAOC				
Al Sharaiva	Sharqivah Desalination Compa	27,519,744	11.0%	27,462,520	11.1%
Al Wusta	RAEC SAOC	2,696,472	1.1%	2,523,574	1.0%
Dhofar	RAEC SAOC	34,081	0.0%	33,678	0.0%
Dhofar	SembcorpSalalah SAOC	21,803,963	8.7%	21,803,963	8.9%
Musandam	RAEC SAOC	71,040	0.0%	69,938	0.0%
Muscat	Al Ghubrah SAOC	42,935,802	17.2%	42,144,509	17.1%
Muscat	Muscat City Desalination Comp	11,609,566	4.7%	11,609,566	4.7%
North Batinah	Sohar Power Companv SAOG	49,711,949	19.9%	47,787,492	19.4%
South Batinah	ACWA Power Barka SAOG	49,920,039	20.0%	49,786,907	20.2%
South Batinah	SMN Barka SAOG	43,229,610	17.3%	43,100,670	17.5%
Sultanate Totals 2015		249,532,266		246,322,817	
Change from 2015 (%)					
2016 Region	Company	Gross m3	% Oman	Water Production Net m3	% Oman
Al Sharaiva	Sharqivah Desalination Compa	31,366,990	10.6%	29,116,162	10.0%
Al Wusta	RAEC SAOC	3,301,357	1.1%	3,099,740	1.1%
Dhofar	RAEC SAOC	49,329	0.0%	49,003	0.0%
Dhofar	SembcorpSalalah SAOC	23,331,493	7.9%	23,331,493	8.0%
Musandam	RAEC SAOC	73,664	0.0%	72,676	0.0%
Muscat	Al Ghubrah SAOC	33,572,085	11.4%	32,766,177	11.3%
Muscat	Muscat City Desalination Comp	53,955,496	18.3%	53,955,496	18.6%
North Batinah	Sohar Power Companv SAOG	45,875,948	15.5%	44,128,150	15.2%
South Batinah	ACWA Power Barka SAOG	64,676,368	21.9%	65,447,411	22.5%
South Batinah	SMN Barka SAOG	38,996,994	13.2%	38,830,078	13.4%
Sultanate Totals 2016		295,199,724	18.3%	290,796,386	18.1%

Table 5i

Monthly Water Production by Zone : Interconnected & Sharqiyah Zone 2013 to 2016

2013 Zone	Month	Water Production		Net '000 m3	% Year
		Gross '000 m3	% Year		
Interconnected & Sharqiyah Zone	Jan-13	11,311.7	7.7%	11,020.8	7.7%
Interconnected & Sharqiyah Zone	Feb-13	10,238.9	7.0%	9,956.4	7.0%
Interconnected & Sharqiyah Zone	Mar-13	12,293.1	8.4%	11,962.9	8.4%
Interconnected & Sharqiyah Zone	Apr-13	12,093.5	8.3%	11,805.5	8.3%
Interconnected & Sharqiyah Zone	May-13	12,859.2	8.8%	12,532.1	8.8%
Interconnected & Sharqiyah Zone	Jun-13	12,963.4	8.8%	12,595.3	8.8%
Interconnected & Sharqiyah Zone	Jul-13	13,071.5	8.9%	12,745.7	8.9%
Interconnected & Sharqiyah Zone	Aug-13	13,065.1	8.9%	12,698.9	8.9%
Interconnected & Sharqiyah Zone	Sep-13	12,660.8	8.6%	12,310.0	8.6%
Interconnected & Sharqiyah Zone	Oct-13	12,490.1	8.5%	12,056.2	8.5%
Interconnected & Sharqiyah Zone	Nov-13	11,533.5	7.9%	11,211.1	7.9%
Interconnected & Sharqiyah Zone	Dec-13	11,931.1	8.1%	11,668.4	8.2%
2013 Totals		146,511.9		142,563.2	

2014 Zone	Month	Water Production		Net '000 m3	% Year
		Gross '000 m3	% Year		
Interconnected & Sharqiyah Zone	Jan-14	13,708.1	7.4%	13,402.7	7.4%
Interconnected & Sharqiyah Zone	Feb-14	12,328.1	6.7%	12,039.1	6.6%
Interconnected & Sharqiyah Zone	Mar-14	14,216.6	7.7%	13,991.2	7.7%
Interconnected & Sharqiyah Zone	Apr-14	14,681.7	7.9%	14,457.9	7.9%
Interconnected & Sharqiyah Zone	May-14	15,638.1	8.5%	15,374.5	8.4%
Interconnected & Sharqiyah Zone	Jun-14	16,661.8	9.0%	16,448.6	9.0%
Interconnected & Sharqiyah Zone	Jul-14	16,878.2	9.1%	16,591.7	9.1%
Interconnected & Sharqiyah Zone	Aug-14	16,615.8	9.0%	16,354.3	9.0%
Interconnected & Sharqiyah Zone	Sep-14	16,429.8	8.9%	16,189.0	8.9%
Interconnected & Sharqiyah Zone	Oct-14	16,173.2	8.7%	15,963.9	8.8%
Interconnected & Sharqiyah Zone	Nov-14	15,782.8	8.5%	15,567.9	8.6%
Interconnected & Sharqiyah Zone	Dec-14	15,861.1	8.6%	15,592.5	8.6%
2014 Totals		184,975.3		181,973.3	

Table 5i

Monthly Water Production by Zone : Interconnected & Sharqiyah Zone 2013 to 2016

2015 Zone	Month	Water Production			
		Gross '000 m3	% Year	Net '000 m3	% Year
Interconnected & Sharqiyah Zone	Jan-15	17,645.6	7.8%	17,347.6	7.8%
Interconnected & Sharqiyah Zone	Feb-15	16,303.9	7.2%	16,105.1	7.3%
Interconnected & Sharqiyah Zone	Mar-15	17,698.3	7.9%	17,459.1	7.9%
Interconnected & Sharqiyah Zone	Apr-15	18,244.1	8.1%	17,944.1	8.1%
Interconnected & Sharqiyah Zone	May-15	17,951.9	8.0%	17,676.5	8.0%
Interconnected & Sharqiyah Zone	Jun-15	17,833.6	7.9%	17,550.8	7.9%
Interconnected & Sharqiyah Zone	Jul-15	19,204.2	8.5%	18,928.8	8.5%
Interconnected & Sharqiyah Zone	Aug-15	19,404.1	8.6%	19,169.8	8.6%
Interconnected & Sharqiyah Zone	Sep-15	20,379.1	9.1%	20,138.5	9.1%
Interconnected & Sharqiyah Zone	Oct-15	19,494.0	8.7%	19,373.4	8.7%
Interconnected & Sharqiyah Zone	Nov-15	19,647.8	8.7%	19,322.7	8.7%
Interconnected & Sharqiyah Zone	Dec-15	21,120.3	9.4%	20,875.4	9.4%
2015 Totals		224,926.7		221,891.7	

2016 Zone	Month	Water Production			
		Gross '000 m3	% Year	Net '000 m3	% Year
Interconnected & Sharqiyah Zone	Jan-16	22,117.0	8.2%	21,588.3	8.2%
Interconnected & Sharqiyah Zone	Feb-16	19,896.1	7.4%	20,233.5	7.7%
Interconnected & Sharqiyah Zone	Mar-16	21,515.0	8.0%	20,928.6	7.9%
Interconnected & Sharqiyah Zone	Apr-16	22,349.6	8.3%	21,947.7	8.3%
Interconnected & Sharqiyah Zone	May-16	23,384.4	8.7%	23,150.1	8.8%
Interconnected & Sharqiyah Zone	Jun-16	22,766.1	8.5%	22,440.5	8.5%
Interconnected & Sharqiyah Zone	Jul-16	22,688.3	8.5%	22,481.7	8.5%
Interconnected & Sharqiyah Zone	Aug-16	23,583.2	8.8%	23,297.5	8.8%
Interconnected & Sharqiyah Zone	Sep-16	22,988.0	8.6%	21,995.2	8.3%
Interconnected & Sharqiyah Zone	Oct-16	23,088.3	8.6%	22,688.5	8.6%
Interconnected & Sharqiyah Zone	Nov-16	22,139.8	8.2%	21,837.6	8.3%
Interconnected & Sharqiyah Zone	Dec-16	21,928.1	8.2%	21,654.1	8.2%
2016 Totals		268,443.9		264,243.5	

Table 5ii

Monthly Water Production by Zone : Rural Zone 2013 to 2016

2013 Zone	Month	Water Production		Net '000 m3	% Year
		Gross '000 m3	% Year		
Rural Zone	Jan-13	193.3	8.4%	177.3	8.2%
Rural Zone	Feb-13	171.6	7.5%	167.3	7.7%
Rural Zone	Mar-13	195.1	8.5%	182.7	8.5%
Rural Zone	Apr-13	189.2	8.3%	179.3	8.3%
Rural Zone	May-13	201.2	8.8%	189.6	8.8%
Rural Zone	Jun-13	193.3	8.4%	181.8	8.4%
Rural Zone	Jul-13	188.8	8.2%	181.0	8.4%
Rural Zone	Aug-13	184.4	8.0%	172.2	8.0%
Rural Zone	Sep-13	191.2	8.3%	179.0	8.3%
Rural Zone	Oct-13	189.3	8.3%	180.6	8.4%
Rural Zone	Nov-13	193.6	8.5%	180.2	8.3%
Rural Zone	Dec-13	200.1	8.7%	189.2	8.8%
2013 Totals		2,291.0		2,160.4	

2014 Zone	Month	Water Production		Net '000 m3	% Year
		Gross '000 m3	% Year		
Rural Zone	Jan-14	193.6	8.1%	178.6	8.0%
Rural Zone	Feb-14	167.2	7.0%	158.5	7.1%
Rural Zone	Mar-14	198.9	8.3%	182.1	8.1%
Rural Zone	Apr-14	205.0	8.5%	183.8	8.2%
Rural Zone	May-14	226.9	9.5%	202.9	9.1%
Rural Zone	Jun-14	217.2	9.1%	197.9	8.8%
Rural Zone	Jul-14	205.4	8.6%	187.1	8.4%
Rural Zone	Aug-14	202.6	8.4%	184.7	8.3%
Rural Zone	Sep-14	200.8	8.4%	197.2	8.8%
Rural Zone	Oct-14	201.7	8.4%	195.7	8.8%
Rural Zone	Nov-14	185.8	7.7%	182.3	8.1%
Rural Zone	Dec-14	192.5	8.0%	185.7	8.3%
2014 Totals		2,397.5		2,236.6	

Table 5ii

Monthly Water Production by Zone : Rural Zone 2013 to 2016

2015		Water Production			
Zone	Month	Gross '000 m3	% Year	Net '000 m3	% Year
Rural Zone	Jan-15	197.4	7.0%	187.9	7.2%
Rural Zone	Feb-15	190.5	6.8%	186.1	7.1%
Rural Zone	Mar-15	214.3	7.6%	191.7	7.3%
Rural Zone	Apr-15	231.1	8.2%	210.5	8.0%
Rural Zone	May-15	244.3	8.7%	234.1	8.9%
Rural Zone	Jun-15	236.9	8.5%	221.5	8.4%
Rural Zone	Jul-15	228.9	8.2%	218.5	8.3%
Rural Zone	Aug-15	223.7	8.0%	210.0	8.0%
Rural Zone	Sep-15	245.1	8.7%	235.8	9.0%
Rural Zone	Oct-15	252.2	9.0%	232.5	8.8%
Rural Zone	Nov-15	264.4	9.4%	239.9	9.1%
Rural Zone	Dec-15	272.7	9.7%	258.6	9.8%
2015 Totals		2,801.6		2,627.2	

2016		Water Production			
Zone	Month	Gross '000 m3	% Year	Net '000 m3	% Year
Rural Zone	Jan-16	271.0	7.9%	254.4	7.9%
Rural Zone	Feb-16	276.7	8.1%	258.0	8.0%
Rural Zone	Mar-16	300.8	8.8%	287.0	8.9%
Rural Zone	Apr-16	277.3	8.1%	264.1	8.2%
Rural Zone	May-16	312.0	9.1%	295.1	9.2%
Rural Zone	Jun-16	295.8	8.6%	275.7	8.6%
Rural Zone	Jul-16	286.5	8.4%	266.5	8.3%
Rural Zone	Aug-16	273.4	8.0%	256.4	8.0%
Rural Zone	Sep-16	277.7	8.1%	261.3	8.1%
Rural Zone	Oct-16	288.3	8.4%	271.2	8.4%
Rural Zone	Nov-16	274.7	8.0%	258.6	8.0%
Rural Zone	Dec-16	290.2	8.5%	273.4	8.5%
2016 Totals		3,424.4		3,221.4	

Table 5iii

Monthly Water Production by Zone : Dhofar Zone 2013 to 2016

2013 Zone	Month	Water Production		Net '000 m3	% Year
		Gross '000 m3	% Year		
Dhofar Zone	Jan-13	106.0	0.6%	106.0	0.6%
Dhofar Zone	Feb-13	212.6	1.3%	212.6	1.3%
Dhofar Zone	Mar-13	246.7	1.5%	246.7	1.5%
Dhofar Zone	Apr-13	920.4	5.5%	920.4	5.5%
Dhofar Zone	May-13	1,978.3	11.8%	1,978.3	11.8%
Dhofar Zone	Jun-13	1,529.2	9.1%	1,529.2	9.1%
Dhofar Zone	Jul-13	1,744.4	10.4%	1,744.4	10.4%
Dhofar Zone	Aug-13	2,056.6	12.3%	2,056.6	12.3%
Dhofar Zone	Sep-13	2,009.8	12.0%	2,009.8	12.0%
Dhofar Zone	Oct-13	2,005.6	12.0%	2,005.6	12.0%
Dhofar Zone	Nov-13	1,968.8	11.8%	1,968.8	11.8%
Dhofar Zone	Dec-13	1,975.5	11.8%	1,975.5	11.8%
2013 Totals		16,753.6		16,753.6	

2014 Zone	Month	Water Production		Net '000 m3	% Year
		Gross '000 m3	% Year		
Dhofar Zone	Jan-14	2,020.0	8.5%	2,020.0	8.5%
Dhofar Zone	Feb-14	1,848.7	7.8%	1,848.7	7.8%
Dhofar Zone	Mar-14	2,104.4	8.9%	2,104.4	8.9%
Dhofar Zone	Apr-14	1,894.3	8.0%	1,894.3	8.0%
Dhofar Zone	May-14	2,120.0	9.0%	2,120.0	9.0%
Dhofar Zone	Jun-14	2,003.5	8.5%	2,003.5	8.5%
Dhofar Zone	Jul-14	1,980.7	8.4%	1,980.7	8.4%
Dhofar Zone	Aug-14	1,888.3	8.0%	1,888.3	8.0%
Dhofar Zone	Sep-14	1,900.8	8.0%	1,900.8	8.0%
Dhofar Zone	Oct-14	2,047.9	8.7%	2,047.9	8.7%
Dhofar Zone	Nov-14	1,838.2	7.8%	1,838.2	7.8%
Dhofar Zone	Dec-14	2,005.8	8.5%	2,005.8	8.5%
2014 Totals		23,652.7		23,652.7	

Table 5iii

Monthly Water Production by Zone : Dhofar Zone 2013 to 2016

2015 Zone	Month	Water Production			
		Gross '000 m3	% Year	Net '000 m3	% Year
Dhofar Zone	Jan-15	1,951.9	9.0%	1,951.9	9.0%
Dhofar Zone	Feb-15	1,682.7	7.7%	1,682.7	7.7%
Dhofar Zone	Mar-15	1,733.5	8.0%	1,733.5	8.0%
Dhofar Zone	Apr-15	1,591.3	7.3%	1,591.3	7.3%
Dhofar Zone	May-15	1,699.9	7.8%	1,699.9	7.8%
Dhofar Zone	Jun-15	1,826.6	8.4%	1,826.6	8.4%
Dhofar Zone	Jul-15	1,908.1	8.8%	1,908.1	8.8%
Dhofar Zone	Aug-15	2,018.7	9.3%	2,018.7	9.3%
Dhofar Zone	Sep-15	1,832.1	8.4%	1,832.1	8.4%
Dhofar Zone	Oct-15	1,900.8	8.7%	1,900.8	8.7%
Dhofar Zone	Nov-15	1,774.3	8.1%	1,774.3	8.1%
Dhofar Zone	Dec-15	1,884.1	8.6%	1,884.1	8.6%
2015 Totals		21,804.0		21,804.0	

2016 Zone	Month	Water Production			
		Gross '000 m3	% Year	Net '000 m3	% Year
Dhofar Zone	Jan-16	1,847.2	7.9%	1,847.2	7.9%
Dhofar Zone	Feb-16	1,806.1	7.7%	1,806.1	7.7%
Dhofar Zone	Mar-16	1,956.4	8.4%	1,956.4	8.4%
Dhofar Zone	Apr-16	1,917.7	8.2%	1,917.7	8.2%
Dhofar Zone	May-16	2,037.2	8.7%	2,037.2	8.7%
Dhofar Zone	Jun-16	1,968.0	8.4%	1,968.0	8.4%
Dhofar Zone	Jul-16	1,929.7	8.3%	1,929.7	8.3%
Dhofar Zone	Aug-16	2,023.1	8.7%	2,023.1	8.7%
Dhofar Zone	Sep-16	1,914.8	8.2%	1,914.8	8.2%
Dhofar Zone	Oct-16	2,092.4	9.0%	2,092.4	9.0%
Dhofar Zone	Nov-16	1,850.7	7.9%	1,850.7	7.9%
Dhofar Zone	Dec-16	1,988.2	8.5%	1,988.2	8.5%
2016 Totals		23,331.5		23,331.5	

Table 6i

Quarterly Water Production by Zone : 2013 to 2016

Zone	Period	Water Production			
		Gross '000 m3	% Year	Net '000 m3	% Year
Interconnected & Sharqiyah Zones	Qtr 1-13	33,843.7	23.1%	32,940.0	23.1%
Interconnected & Sharqiyah Zones	Qtr 2-13	37,916.1	25.9%	36,932.9	25.9%
Interconnected & Sharqiyah Zones	Qtr 3-13	38,797.4	26.5%	37,754.5	26.5%
Interconnected & Sharqiyah Zones	Qtr 4-13	35,954.7	24.5%	34,935.8	24.5%
2013 Totals		146,511.9		142,563.2	
Interconnected & Sharqiyah Zones	Qtr 1-14	40,252.8	21.8%	39,432.9	21.7%
Interconnected & Sharqiyah Zones	Qtr 2-14	46,981.6	25.4%	46,281.1	25.4%
Interconnected & Sharqiyah Zones	Qtr 3-14	49,923.9	27.0%	49,135.0	27.0%
Interconnected & Sharqiyah Zones	Qtr 4-14	47,817.1	25.9%	47,124.3	25.9%
2014 Totals		184,975.3		181,973.3	
Interconnected & Sharqiyah Zones	Qtr 1-15	51,647.7	23.0%	50,911.8	22.9%
Interconnected & Sharqiyah Zones	Qtr 2-15	54,029.6	24.0%	53,171.3	24.0%
Interconnected & Sharqiyah Zones	Qtr 3-15	58,987.4	26.2%	58,237.1	26.2%
Interconnected & Sharqiyah Zones	Qtr 4-15	60,262.0	26.8%	59,571.5	26.8%
2015 Totals		224,926.7		221,891.7	
Interconnected & Sharqiyah Zones	Qtr 1-16	63,528.1	23.7%	62,750.5	23.7%
Interconnected & Sharqiyah Zones	Qtr 2-16	68,500.1	25.5%	67,538.3	25.6%
Interconnected & Sharqiyah Zones	Qtr 3-16	69,259.5	25.8%	67,774.5	25.6%
Interconnected & Sharqiyah Zones	Qtr 4-16	67,156.2	25.0%	66,180.2	25.0%
2016 Totals		268,443.9		264,243.5	

Table 6ii

Quarterly Water Production by Zone : 2013 to 2016

<i>Zone</i>	<i>Period</i>	<i>Water Production</i>			
		<i>Gross '000 m3</i>	<i>% Year</i>	<i>Net '000 m3</i>	<i>% Year</i>
Rural Zones	Qtr 1-13	560.0	24.4%	527.3	24.4%
Rural Zones	Qtr 2-13	583.7	25.5%	550.7	25.5%
Rural Zones	Qtr 3-13	564.3	24.6%	532.2	24.6%
Rural Zones	Qtr 4-13	583.1	25.4%	550.1	25.5%
2013 Totals		2,291.0		2,160.4	
Rural Zones	Qtr 1-14	559.6	23.3%	519.2	23.2%
Rural Zones	Qtr 2-14	649.1	27.1%	584.6	26.1%
Rural Zones	Qtr 3-14	608.8	25.4%	569.0	25.4%
Rural Zones	Qtr 4-14	580.0	24.2%	563.7	25.2%
2014 Totals		2,397.5		2,236.6	
Rural Zones	Qtr 1-15	602.2	21.5%	565.7	21.5%
Rural Zones	Qtr 2-15	712.4	25.4%	666.1	25.4%
Rural Zones	Qtr 3-15	697.7	24.9%	664.3	25.3%
Rural Zones	Qtr 4-15	789.3	28.2%	731.1	27.8%
2015 Totals		2,801.6		2,627.2	
Rural Zones	Qtr 1-16	848.5	24.8%	799.3	24.8%
Rural Zones	Qtr 2-16	885.0	25.8%	834.9	25.9%
Rural Zones	Qtr 3-16	837.6	24.5%	784.1	24.3%
Rural Zones	Qtr 4-16	853.2	24.9%	803.1	24.9%
2016 Totals		3,424.4		3,221.4	

Table 6iii

Quarterly Water Production by Zone : 2013 to 2016

Zone	Period	Water Production			
		Gross '000 m3	% Year	Net '000 m3	% Year
Dhofar Zone	Qtr 1-13	565.3	3.4%	565.3	3.4%
Dhofar Zone	Qtr 2-13	4,427.8	26.4%	4,427.8	26.4%
Dhofar Zone	Qtr 3-13	5,810.7	34.7%	5,810.7	34.7%
Dhofar Zone	Qtr 4-13	5,949.8	35.5%	5,949.8	35.5%
2013 Totals		16,753.6		16,753.6	
Dhofar Zone	Qtr 1-14	5,973.2	25.3%	5,973.2	25.3%
Dhofar Zone	Qtr 2-14	6,017.8	25.4%	6,017.8	25.4%
Dhofar Zone	Qtr 3-14	5,769.8	24.4%	5,769.8	24.4%
Dhofar Zone	Qtr 4-14	5,891.9	24.9%	5,891.9	24.9%
2014 Totals		23,652.7		23,652.7	
Dhofar Zone	Qtr 1-15	5,368.1	24.6%	5,368.1	24.6%
Dhofar Zone	Qtr 2-15	5,117.8	23.5%	5,117.8	23.5%
Dhofar Zone	Qtr 3-15	5,758.9	26.4%	5,758.9	26.4%
Dhofar Zone	Qtr 4-15	5,559.1	25.5%	5,559.1	25.5%
2015 Totals		21,804.0		21,804.0	
Dhofar Zone	Qtr 1-16	5,609.8	24.0%	5,609.8	24.0%
Dhofar Zone	Qtr 2-16	5,922.8	25.4%	5,922.8	25.4%
Dhofar Zone	Qtr 3-16	5,867.6	25.1%	5,867.6	25.1%
Dhofar Zone	Qtr 4-16	5,931.3	25.4%	5,931.3	25.4%
2016 Totals		23,331.5		23,331.5	



Annex D: Electricity Subsidy Calculations

ANNUAL REPORT 2016

2016 MIS Outturn Subsidy

Maximum Allowed Supply Revenue

Rial Omani	MEDC	MJEC	MZEC	2016 outturn Total	2015 Outturn Total	% Change
PC (Energy cost)	207,159,262	162,481,662	166,468,851	536,109,775	492,035,276	8.96%
TUoS (Transmission cost)	27,520,020	18,805,813	24,333,328	70,659,161	73,133,453	-3.38%
DUoS (Distribution cost)	53,925,428	42,012,586	66,430,492	162,368,506	159,283,951	1.94%
SB (Supply cost)	11,243,775	7,921,186	12,170,515	31,335,476	29,740,589	5.36%
LF (Licence fee)	53,492	53,492	53,492	160,476	170,397	-5.82%
KS (Correction factor)	3,116,712	1,556,726	3,204,116	4,764,102	11,171,903	-142.64%
Maximum Allowed Supply Revenue	303,018,689	229,718,013	272,660,793	805,397,496	743,191,761	8.37%

Actual Regulated Supply Revenue

Rial Omani	MEDC	MJEC	MZEC	Total	Total	Variance
Approved Subsidy	123,091,130	112,126,912	149,545,856	384,763,899	340,458,957	13%
Permitted Tariff (& other) Revenue	174,601,810	127,834,288	113,068,497	415,504,595	399,014,716	4%
Actual Regulated Supply Revenue	297,692,941	239,961,200	262,614,353	800,268,494	739,473,673	8%
Outturn Subsidy Requirement	128,416,879	101,883,725	159,592,296	389,892,900	344,177,045	13%

Subsidy per kWh

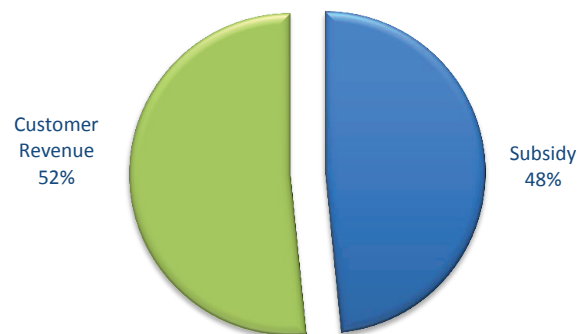
(bz/kWh)	Muscat	Majan	Mazoon	Total	Total	Variance
Economic Cost	29.2	26.9	34.4	30.0	29.1	3%
Subsidy (Outturn)	12.4	11.9	20.2	14.5	13.5	8%
Customer Revenue	16.8	15.0	14.3	15.5	15.6	-1%

Source: Company SCRCs, Authority calculations

2016 MIS Revenue and Subsidy Outturn

Key:

- PC** means the cost of bulk supply purchases from PWP
- TUoS** means Transmission Use of System costs
- DUoS** means Distribution Use of System costs
- SB** means Supply Business costs
- LF** means the Supply Business Licence Fees
- KS** means the Supply Business Correction Factor
- All in relevant year t





2017 MIS Subsidy Forecast

Maximum Allowed Supply Revenue

Rial Omani	Muscat	Majan	Mazoon	2017 Forecast Total	2016 outturn Total	% Change
PC (Energy cost)	214,136,177	172,696,415	170,181,357	557,013,949	536,109,775	3.90%
TUoS (Transmission cost)	27,487,208	18,873,735	23,687,760	70,048,702	70,659,161	-0.86%
DUoS (Distribution cost)	42,885,563	46,802,383	67,157,123	156,845,068	162,368,506	-3.40%
SB (Supply cost)	11,940,938	8,310,728	13,041,513	33,293,179	31,335,476	6.25%
LF (Licence fee)	86,389	86,389	86,389	259,167	160,476	61.50%
KS (Correction factor)	5,390,368	10,674,766	10,000,000	4,715,602	4,764,102	-1.02%
Maximum Allowed Supply Revenue	301,926,643	236,094,884	284,154,141	822,175,668	805,397,496	2.08%

Actual Regulated Supply Revenues

Rial Omani	Muscat	Majan	Mazoon	Total	Total	Variance
Approved Subsidy	98,496,427	82,238,780	148,558,553	329,293,761	384,763,899	-14%
Permitted Tariff (& other) Revenue	203,430,215	153,856,103	135,595,588	492,881,907	415,504,595	19%
Actual Regulated Supply Revenue	301,926,643	236,094,884	284,154,141	822,175,668	800,268,494	3%

Subsidy per kWh

(bz/kWh)	Muscat	Majan	Mazoon	Total	Total	Variance
Economic Cost	28.0	26.1	34.1	29.2	30.0	-3%
Subsidy (Estimate)	9.1	9.1	17.8	11.7	14.5	-20%
Customer Revenue	18.8	17.0	16.3	17.5	15.5	13%

Source: Company returns, Authority estimates

2017 MIS Revenue & Subsidy

Forecast



Key:

- PC** means the cost of bulk supply purchases from PWP
 - TUoS** means Transmission Use of System costs
 - DUoS** means Distribution Use of System costs
 - SB** means Supply Business costs
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 - KS** means the Supply Business Correction Factor
- All in relevant year t

2016 RAEC Subsidy Outturn

Maximum Allowed Electricity Revenue

Rial Omani	2016 outturn	2015 outturn	% Change
	Total	Total	
MAGR (Generation cost)	66,743,859	57,235,967	17%
MANR (Networks cost)	18,466,338	18,469,459	-0%
MASR (Supply cost)	5,507,119	5,259,808	5%
LF (Licence fee)	249,139	302,899	-18%
K (Correction factor)	965,642-	173,382	-657%
Maximum Allowed Electricity Revenue	91,932,097	81,094,750	13%

Actual Regulated Electricity Revenue

Rial Omani	2016 outturn	2015 outturn	Variance
	Total	Total	
Approved Subsidy	72,641,793	66,452,279	9%
Permitted Tariff (& other) Revenue	13,948,405	13,685,566	2%
Actual Regulated Electricity Revenue	86,590,198	80,137,845	8%
Outturn Subsidy Requirement	77,983,691	67,409,184	16%

Subsidy per kWh

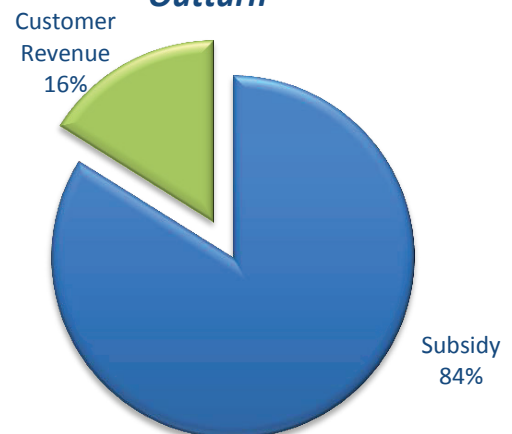
(bz/kWh)	2016 outturn	2015 outturn	Variance
	Total	Total	
Economic Cost	108.3	99.3	9%
Subsidy (Outturn)	91.9	82.6	11%
Customer Revenue	16.4	16.8	-2%

Note: RAEC Licence (MAR formula) was modified in 2015

Source: Company SCRCs, Authority calculations

2016 RAEC Revenue & Subsidy

Outturn



Key:

MAGR means the Maximum Allowed Generation Revenue

MANR means the Maximum Allowed Networks Revenue

MASR means the Maximum Allowed Supply Revenue

LF means the Licence Fees

K means the Electricity Business Correction Factor

All in relevant year t



2017 RAEC Subsidy Forecast

Maximum Allowed Electricity Revenue

Rial Omani

	2017 Forecast	2016 outturn	% Change
	Total	Total	
MAGR (Generation cost)	76,283,965	66,743,859	14.3%
MANR (Networks cost)	19,098,184	18,466,338	3.4%
MASR (Supply cost)	5,873,020	5,507,119	6.6%
LF (Licence fee)	438,267	249,139	75.9%
K (Correction factor)	5,406,712-	965,642-	459.9%
Maximum Allowed Electricity Revenue	107,100,148	91,932,097	16.5%

Actual Regulated Electricity Revenue

Rial Omani

	Total	Total	Variance
Approved Subsidy	89,523,460	72,641,793	23%
Permitted Tariff (& other) Revenue	17,576,687	13,948,405	26%
Actual Regulated Electricity Revenue	107,100,148	86,590,198	24%

Subsidy per kWh

(bz/kWh)

	Total	Total	Variance
Economic Cost	111.7	108.3	3%
Subsidy (Estimate)	93.4	91.9	2%
Customer Revenue	18.3	16.4	12%

Source: Company returns, Authority estimates

2017 RAEC Revenue & Subsidy Forecast

Key:

MAGR means the Maximum Allowed Generation Revenue

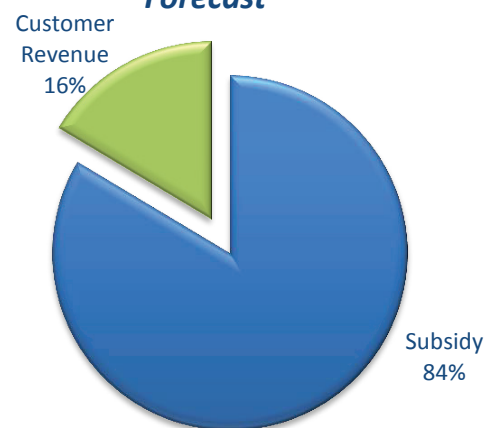
MANR means the Maximum Allowed Networks Revenue

MASR means the Maximum Allowed Supply Revenue

LF means the Licence Fees

K means the Electricity Business Correction Factor

All in relevant year t





2016 DPC Outturn Subsidy

Maximum Allowed Supply Revenue	2016 outturn	2015 outturn	
<i>Rial Omani</i>	Total	Total	% Change
PC (Energy cost)	55,963,787	52,941,970	6%
TUoS (Transmission cost)	6,184,782	8,593,082	-28%
DUoS (Distribution cost)	16,035,246	16,772,378	-4%
SB (Supply cost)	4,227,348	3,959,059	7%
LF (Licence fee)	53,492	56,794	-6%
KS (Correction factor)	1,590,893-	1,444,399-	10%
Maximum Allowed Supply Revenue	84,055,549	83,767,682	0%

Actual Regulated Supply Revenue			
<i>Rial Omani</i>	Total	Total	Variance
Approved Subsidy	38,219,973	41,258,489	-7%
Permitted Tariff (& other) Revenue	41,423,508	40,932,693	1%
Actual Regulated Supply Revenue	79,643,481	82,191,182	-3%
Outturn Subsidy Requirement	42,632,041	42,834,989	0%

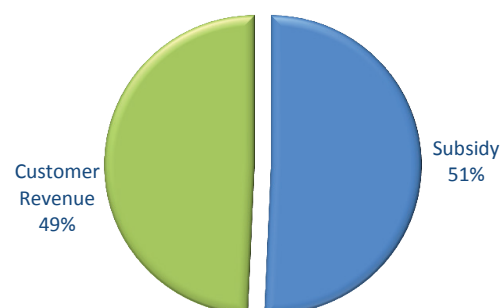
Subsidy per kWh			
<i>(bz/kWh)</i>	Total	Total	Variance
Economic Cost	31.5	32.4	-3%
Subsidy (Estimate)	16.0	16.6	-4%
Customer Revenue	15.5	15.8	-2%

Source: Company returns, Authority estimates

Key:

- PC** means the cost of bulk supply purchases from PWP
- TUoS** means Transmission Use of System costs
- DUoS** means Distribution Use of System costs
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- All in relevant year t

2016 DPC Revenue & Subsidy Outturn



2016 Outturn & 2017 Forecast DPC Subsidy

Maximum Allowed Supply Revenue <i>Rial Omani</i>	2017 Forecast Total	2016 outturn Total	% Change
PC (Energy cost)	59,172,444	55,963,787	5.7%
TUoS (Transmission cost)	6,157,842	6,184,782	-0.4%
DUoS (Distribution cost)	17,178,009	16,035,246	7.1%
SB (Supply cost)	4,564,092	4,227,348	8.0%
LF (Licence fee)	86,389	53,492	61.5%
KS (Correction factor)	2,000,832-	1,590,893-	25.8%
Maximum Allowed Supply Revenue	89,159,609	84,055,549	6.1%

Actual Regulated Supply Revenue <i>Rial Omani</i>	Total	Total	Variance
Approved Subsidy	37,458,451	38,219,973	-2%
Permitted Tariff (& other) Revenue	51,701,158	41,423,508	25%
Actual Regulated Supply Revenue	89,159,609	79,643,481	12%

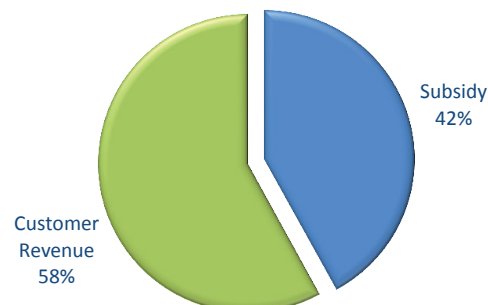
Subsidy per kWh <i>(bz/kWh)</i>	Total	Total	Variance
Economic Cost	31.5	31.5	0%
Subsidy (Estimate)	13.3	16.0	-17%
Customer Revenue	18.3	15.5	18%

Source: Company returns, Authority estimates

Key:

PC means the cost of bulk supply purchases from PWP
TUoS means Transmission Use of System costs
DUoS means Distribution Use of System costs
SB means Supply Business costs
LF means the Supply Business Licence Fees
KS means the Supply Business Correction Factor
 All in relevant year t

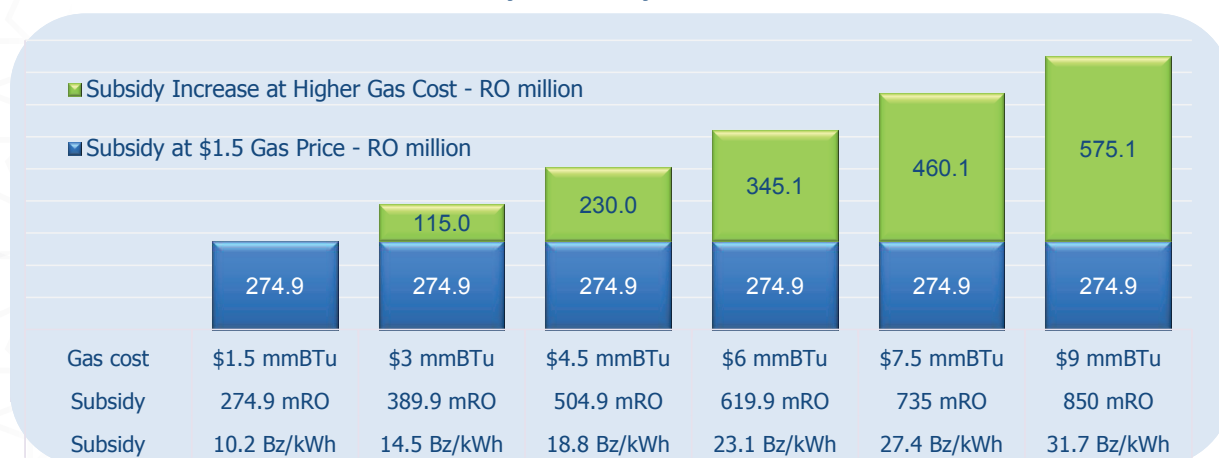
2017 DPC Revenue & Subsidy Forecast



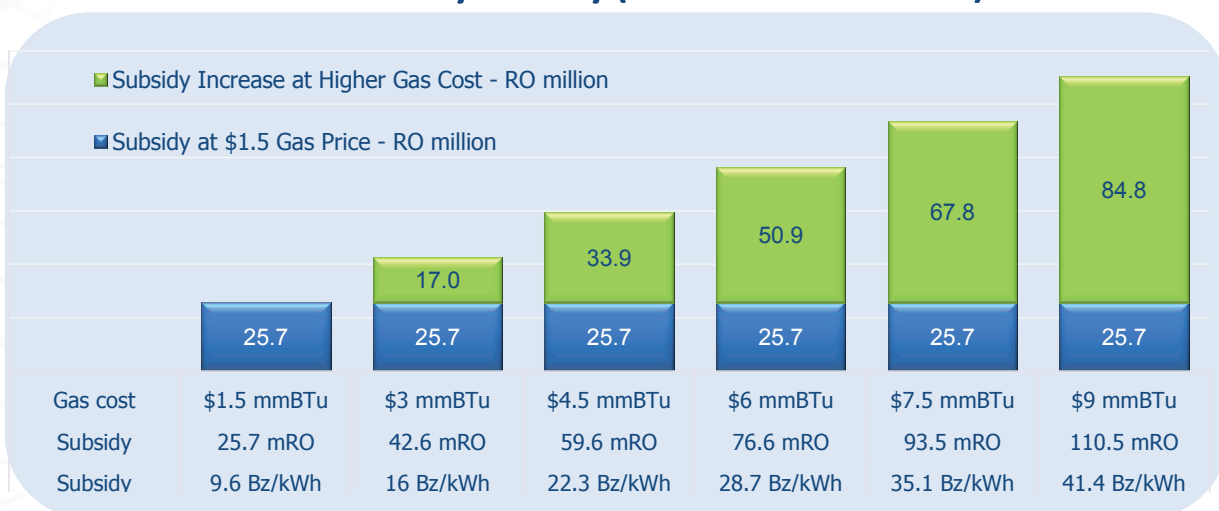


Annex E: Economic Electricity Subsidy 2016

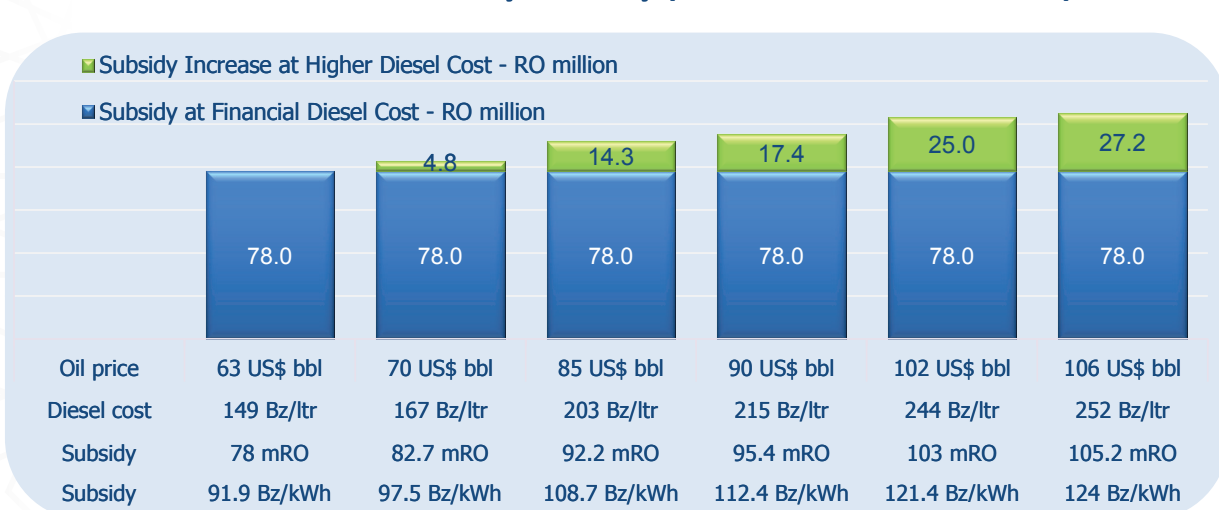
2016 MIS Electricity Subsidy (Gas Cost Sensitivities)



2016 DPC Electricity Subsidy (Gas Cost Sensitivities)



2016 RAEC Electricity Subsidy (Diesel Cost Sensitivities)





Annex F: 2017 Forward Work Programme



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Foreword

The Authority for Electricity Regulation, Oman ("the Authority") is responsible for regulating the electricity and related water sector in the Sultanate of Oman. The Authority was established pursuant to Article (19) of the law for the regulation and privatization of the electricity and related water sector (the "Sector Law") promulgated by Royal Decree 78/2004 and amended by Royal Decree 59/2009 and Royal Decree 47/2013.

Article (34) of the Sector Law requires the Authority to publish a Forward Work Programme before the commencement of each Financial Year (1 January to 31 December) setting out the principal areas of work for the coming year.

Further information about the Authority and the structure and regulation of the electricity and water sector in Oman is available for review on the Authority's website: www.aer-oman.org.

Statutory Functions and Duties

The Authority has a range of statutory functions and duties that are set out in various sections of the Sector Law. The Authority's principal duties (see Article (22) of the Sector Law) require the Authority to:

- Secure the provision of electricity and water services in Oman;
- Promote competition in the electricity and water sector;
- Secure the safe, effective and economic operation of the electricity and water sector in the public interest;
- Protect the interests of customers, in particular those with limited income, the elderly and sick; to prepare criteria relating to the welfare of customers and to act in accordance with such criteria;
- Secure compliance with Government policy relating to the protection of the environment, Omanisation and Omani Content;
- Ensure the financial and technical capabilities of licensees and ensure companies operating efficiently can finance their activities;
- Secure the conduct of fair and transparent competitions for new capacity by the Oman Power and Water Procurement Company SAOC;
- Facilitate the privatisation of the electricity and water sector;
- Review on an annual basis the scope for further liberalisation of the electricity and water sector; and
- Prepare and maintain a Public Register of all matters relating to licenses and exemptions.

The Authority is also subject to important governance duties including a duty not discriminate against or unduly prefer any Person; to act consistently treating like cases alike and, in particular, to ensure, so far as it is appropriate, that all Licenses and Exemptions for the same Regulated Activities are granted in substantially the same form; a duty to minimise, insofar as it is able to do so, the regulatory burden on licence holders and exemption holders; and to give written reasons for its decisions.

All of the Authority's work, including that envisaged in the 2017 Forward Work Plan, must be conducted in accordance with these statutory duties.

Consultation

The Authority consulted on the draft 2017 Forward Work Programme and invited interested Persons to submit comments and objections. The Authority responded to all comments and objections received in response to this consultation within thirty days of receipt as described above.

Purpose of Forward Work Programme

The Authority's Forward Work Programme serves a number of purposes:

- (i) Publication of each Forward Work Programme provides notice to Persons who may be affected by the programme thereby affording them the opportunity to comment on what is proposed;
- (ii) The Forward Work Programme is an important determinant of the Authority's costs (and licensees' fees) and as such is an important input in the development of the Authority's budget; and
- (iii) Publication of a Forward Work Programme reinforces transparency and accountability by allowing interested Persons, such as licensees and the Government, to ensure work planned for each subsequent year is consistent with Government objectives and aligned to the Authority's statutory functions and duties.

Each Forward Work Programme sets out work the Authority proposes to undertake in the coming year. During the course of a year the Authority may need to reprioritise work in response to events and changing circumstances and may therefore undertake work that was not included in a Forward Work Programme and be unable to undertake or complete items in a published programme.

Context & Content of 2017 Forward Work Programme

The 2017 Forward Work Programme is the twelfth programme published by the Authority since its establishment.

All of the work items in the 2017 Forward Work Programme are in addition to work undertaken by the Authority in the normal course of business.

2017 Work Priorities

The 2017 Forward Work Programme includes a number of general policy areas of work:

GP1 Customer Service Compliance Audit

The Authority intends to repeat the audits undertaken in 2016 of all supply licensees to ascertain their compliance with statutory obligations towards their customers. The repeated audits will support the Authority's assessment for price control incentives and will help to ensure that action plans are received and acted on for each company to follow up on 2016 compliance assessment in conjunction with policy development work stream.

GP2 Development of Supply Competition

The Authority aims to develop an overall programme of work and timescale to advance the Competitive Market Review (CMR). The review will identify key issues to be considered as part of the CMR and the Authority intends to publish consultation papers and arrange stakeholder consultation discussions as part of the process..

GP3 Energy Efficiency Measures

The Authority intends to pursue a number of energy efficiency related work streams during 2017. The establishment of an energy efficiency data framework in 2016 will enable the Authority to further specific actions

GP4 Renewable Energy

The Authority will continue to promote the competitive based deployment of renewable energy in Oman, including:

- (i) Finalizing and approving the new regulatory framework for small scale grid-connected renewable facilities and monitoring the implementation.
- (ii) Supervising and supporting development of large scale renewable energy projects (Solar IPP)

GP5 Operational Audits

During its various audits of Licensees the Authority identified a weakness in the form of lack of operational audits by the Licensees for their activities. The Authority intends to undertake Operational Audits of Licensees that the Authority hopes will show the companies how such audits are undertaken and will allow the Authority to monitor real progress achieved by the companies in implementing the recommendations from other Audits.



GP6 Development of an Electricity Spot Market

The Authority will continue to support work on the development and finalisation of detailed market rules that would govern the operation of the spot market, this will include review and modification of licenses.

GP7 Disco and RAEC Price Control Review

Current Disco and RAEC price controls are due to expire on 31 December 2017. New price controls are therefore required to be set for 1 January 2018.

GP8 Cyber Security Regulations

During 2016 the Authority worked closely with Licensees on the implementation plans of the Cyber Security requirements. The Authority intends to review the technical control and audit the progress achieved by Licensees during 2017.

GP9 Oman Electrical Standards and Electrical Regulations

The Authority aims to continue to review the OES and work to update and issue revised and new OES throughout 2017.

Authority for Electricity Regulation, Oman

Glossary of Terms

Licence	An authorization granted by the Authority to undertake one or more of the Regulated Activities stipulated in Article (3) of the Sector Law
OES	Oman Electrical Standards
Discos	The Distribution & Supply Licensees; Muscat Electricity Distribution Company SAOC, Majan Electricity Company SAOC, Mazoon Electricity Company SAOC and Dhofar Power Company SAOC
PAEW	The Public Authority for Electricity and Water established by Royal Decree 92/2007
Price control	A mechanism for determining the maximum allowed revenue a licensee can recover in each year from users of its services, as stipulated in a schedule charge restriction condition of a Licence
RAEC	The Rural Areas Electricity Company SAOC
Regulated Activities	The activities stipulated in Article (3) of the Sector Law
Sector Law	The law for the regulation and privatization of the electricity and related water sector promulgated by Royal Decree 78/2004 and amended by Royal Decree 59/2009 and Royal Decree 47/2013
Cyber Security	The tools, policies, security concepts, security safeguards, guidelines, risk management approaches, actions, training, best practices, assurance and technologies used to protect and safeguard SCADA and DCS systems from threats to the availability and integrity of those systems, and the confidentiality of data held by those systems and/or exchanged with other systems.
The Authority	The Authority for Electricity Regulation, Oman, being the authority established pursuant to Article (19) of the Sector Law