ANNUAL REPORT 2017

هيئة تنظيم الكهرباء - عمان
AUTHORITY FOR ELECTRICITY REGULATION, OMAN

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Cover Photograph: Jaafar waterfall is the largest Wadi-Darbat waterfall in Wilayat Taqa, Dhofar Governorate, in southern Oman. The photo shows this vast waterfall gushing after the Tropical Cyclone "Mekunu" hit Dhofar on May 26, 2018.
Photographer: Masoud Al Saadi

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His Majesty
Sultan Qaboos bin Said

CONTENTS

GLOSSARY OF TERMS

Bulk Supply Tariff (BST)	:	Tariffs charged by PWP and RAEC for bulk supplies of electricity and water, where such tariffs are calculated each year and approved by the Authority;
DPC	:	The Dhofar Power Company SAOC
DPS		Dhofar Power System connecting the systems of DPC and OETC in Dhofar region
EHC	:	The Electricity Holding Company SAOC
EPC	:	Engineering, Procurement and Construction
ERWS	:	Electricity and Related Water Sector
GCCIA	:	Gulf Cooperation Council Interconnection Authority
I(W)PP and IPP	:	Independent Power and Water Project
Main Interconnected System or MIS	:	The interconnected systems of OETC, and the Muscat, Majan and Mazoon Discos
Majan or MJEC	:	The Majan Electricity Company SAOC
Mazoon or MZEC	:	The Mazoon Electricity Company SAOC
MAR	:	Maximum Allowed Revenue
MHEW	:	The Ministry of Housing, Electricity and Water
Muscat or MEDC	:	The Muscat Electricity Distribution Company SAOC
OETC	:	The Oman Electricity Transmission Company SAOC
Omanisation	:	The policy for the employment of Omani nationals as issued from time to time by the Government of Oman
Permitted Tariff	:	Tariffs Customers are obliged to pay in consideration for Supply of electricity or for Connection to a Distribution System or a Transmission System, which tariff shall be determined in the manner stipulated in Article (9) of the Sector Law
PAEW	:	The Public Authority for Electricity and Water
PWP	:	The Oman Power and Water Procurement Company SAOC
RAEC	:	The Rural Areas Electricity Company SAOC
OMR	:	Omani Rial
ROP	:	Royal Oman Police
SCRC	:	Schedule Charge Restriction Condition
Sector Law	:	The law for the regulation and privatization of the electricity and related water sector promulgated by Royal Decree 2004/78 as amended by Royal Decree 2009/59.
Related Water	:	Desalinated water in the Sultanate of Oman which is combined or co-located with the electricity sector and which is subject to regulation
The Authority	:	The Authority for Electricity Regulation, Oman, being the authority established pursuant to Article (19) of the Sector Law as amended

CHAIRMAN'S FOREWORD

On behalf of the Authority, it is with great pleasure that I present our Annual Report for 2017. The electricity and water sector sustained its growth and development since the restructuring. The main highlights of 2017 were as follows:

i. The number of electricity Customer accounts in the Sultanate increased by 72804 or 6.8% from 1074597 in 2016 to 1147401. Residential customers accounted for 74.3% of the increase in accounts. Since the 2005 market restructuring the number of electricity accounts has increased 617643 or 116.6%;

ii. Electricity Supply in 2017 reached 32.3 TWh, 6% higher than in 2016 and 240% higher than in 2005;

iii. The Authority's measure of electricity Intensity (MWh per account) reached 28.2 in 2017, lower than 2016 by 0.1% and 58% higher than in 2005. Increasing intensity is an important driver of electricity demand that has implications for costs and subsidy. If the 1147401 registered accounts in 2017 had the same average intensity as in 2005, electricity supply in 2017 would have been 36%, or 11.76 TWh lower with corresponding reductions in costs and subsidy;

iv. Sector gas use increased by 3.0% in 2017 while gross electricity and water production increased by 6.1% and 5.0%, respectively due to efficient use of gas. RAEC consumed about 22,7185,000 litres of diesel in 2017 to support increases in electricity and water production of 10.5% and 3.7%, respectively;

v. Technical and non-technical losses accounted for 8.8% of total units entering electricity systems in the Sultanate in 2017, a decrease on reported losses of 9.2% in 2016. MIS losses decreased from 9.2% in 2016 to 8.8% in 2017, RAEC losses increased from 14.7% in 2016 to 16.3% in 2017, and Dhofar Power System losses decreased slightly from 12.7% in 2016 to 11.5% in 2017;

vi. Total electricity and water sector employment (Direct and Contractor employees) decreased by 9.2% in 2017, reflecting a 2.5% decrease in Direct employment (from 2,870 to 2,798) and a 9.2% decrease in Indirect employment (from 6,623 to 5,823). The 2017 overall electricity and water sector Omanisation rate was 65%;

vii. The Authority issued two new Customer Complaint Determination in 2017, and resolved 35 outstanding complaints on the basis of policy precedents established in 69 previously issued Determinations;

viii. In 2017, Eng. Mahmood Al Habsi, Senior Regulatory Engineer, completed MA in electrical energy systems at the University of Cardiff in the United Kingdom with a distinction. The Authority extends to Engineer Mahmoud the warmest congratulations for this achievement.

ix. The electricity sector benefited from 489.6 million Rial Omani of support from the Ministry of Finance in 2017: 360.2 million Rial Omani of MIS subsidy, 37.1 million Rial Omani of Dhofar Power System subsidy and 90.5 million Rial Omani of RAEC subsidy.

x. Electricity licensees approved 488 electricity related projects in 2017 with a total value of OMR 165.2 million, these projects will support the provision of electricity services in all of the Sultanate's regions; and

xi. The cost of regulating the electricity and related water sector in 2017 was around OMR 3.12 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.

Saleh bin Hamood Al Rashdi
Chairman
Authority for Electricity Regulation, Oman

Electricity and Water Sector Market Structure

Sources: MIS & Dhofar 2015 Capacities from PWP 7-Year Statement (Issue 9), other data AER

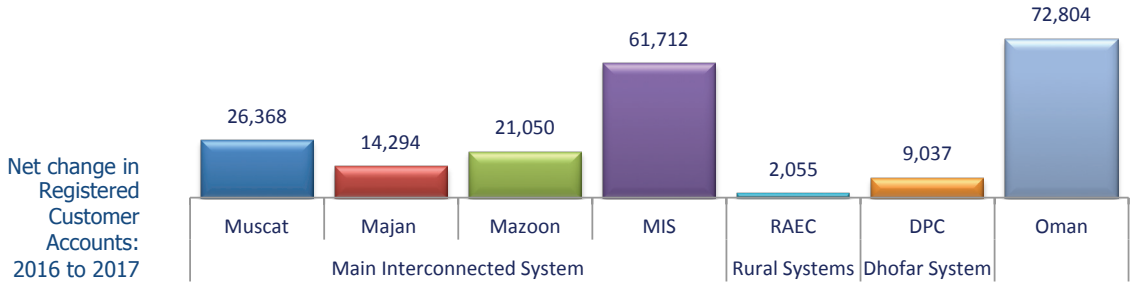
The Sector Law designates certain activities as regulated activities and requires persons seeking to undertake such activities to be authorised by the Authority to do so. Further details of the new market structure and its regulation are available at www.aer-oman.org.

Electricity & Water Sector Activity and Statistics

Customer Accounts: 2016 and 2017

The number of registered electricity customer accounts in the Sultanate, increased by 6.8% in 2017 from 1,074,597 in 2016 to 1,147,401. The MIS accounted for 84.8% of the increase in accounts, lower than what was reported in 2016 (85.7%), while RAEC accounted for 2.8% of the increase (3.1% in 2016), and DPC for 12.4% of the increase (11.2% in 2016). Please refer to Figure 1 below and Table 1 of Annex C for further details.

Figure (1): Registered Customer Accounts by Company: 2016 & 2017



	Muscat	Majan	Mazoon	MIS	RAEC	DPC	Oman
2016 Accounts	336,523	210,901	390,689	938,113	35,458	101,026	1,074,597
2017 Accounts	362,891	225,195	411,739	999,825	37,513	110,063	1,147,401
net change in Accounts	***26,368***	***14,294***	***21,050***	***61,712***	***2,055***	***9,037***	***72,804***
% change in Accounts	7.8%	6.8%	5.4%	6.6%	5.8%	8.9%	6.8%

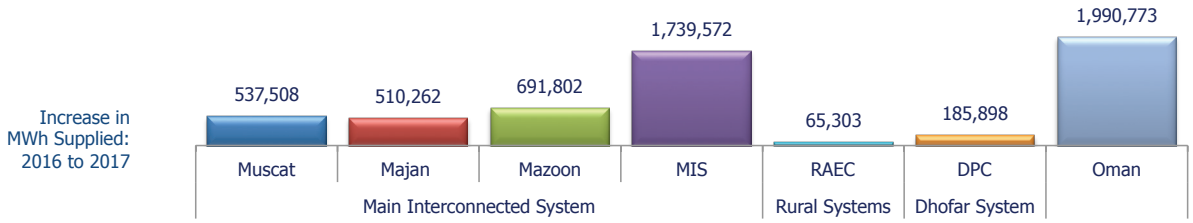
Source: Company returns

For the Sultanate as a whole, Residential customers accounted for 70.7% of the 72,804 increase in accounts and Commercial customers for 20.3% of the increase.

Electricity Supply: 2016 and 2017

Total electricity supply in the Sultanate increased by 2.0 TWh in 2017 from 30.4 TWh in 2016 to 32.3 TWh, an increase of 6.6% following a 5.0% increase in 2016. MIS supply increased by 6.5% (or 1.7 TWh) in 2017, accounting for 87.4 % of the total (2.0 TWh) growth in supply. DPC and RAEC supply were 7.0% and 7.7% higher than in 2016,respectively. See Figure 2 below and Table 2 of Annex C for further details.

Figure(2): Electricity Supply by Company: 2016 & 2017



	Muscat	Majan	Mazoon	MIS	RAEC	DPC	Oman
2016 MWh	10,381,009	8,541,766	7,919,836	26,842,611	848,666	2,667,434	30,358,712
2017 MWh	10,918,517	9,052,027	8,611,639	28,582,183	913,969	2,853,332	32,349,484
net change in MWh	*537,508*	*510,262*	*691,802*	*1,739,572*	*65,303*	*185,898*	*1,990,773*
% change in MWh	5.2%	6.0%	8.7%	6.5%	7.7%	7.0%	6.6%

Source: Company returns

Residential customers accounted for 46.0% of total supply in 2017, compared to a 55.2% share in 2005.

Figure 3 compares the 2017 increase in accounts and supply by customer category. Total Tourism accounts increased by 40%, while supply by around 248%. Residential customer accounts increased by 6.4%; in line with the growth rate in supply.

Supply to Industrial customers decreased by 2.6% and to Government by 1.3%. Large customers of both these categories were subject to an increased (Cost-Reflective) Tariff from 2017.

Figure(3) : 2017 Increases in Accounts & Supply by Customer Category

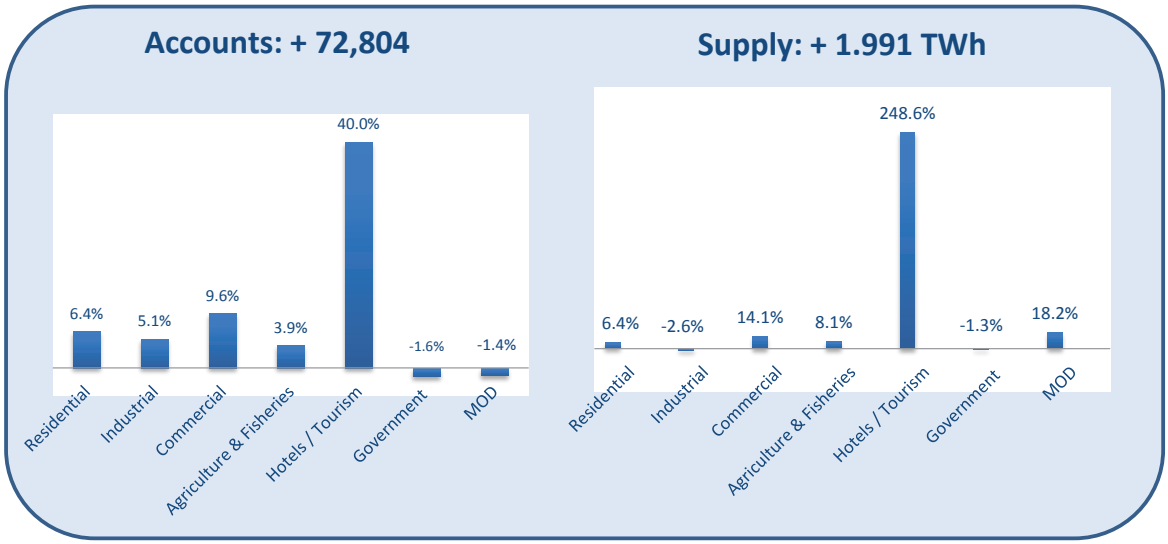
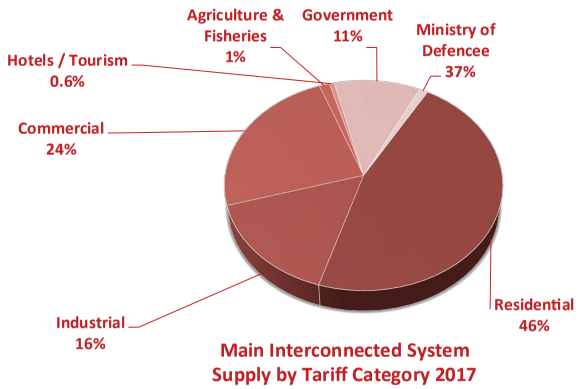


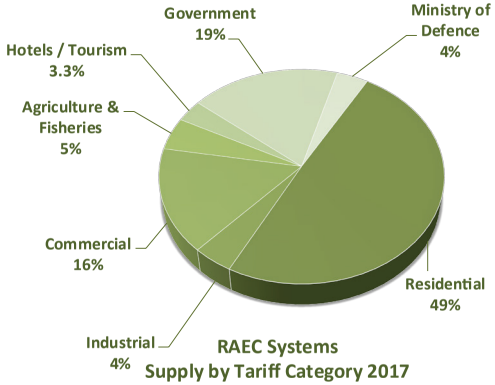
Figure 4 presents electricity Supply by tariff category for each of the three market segments in 2016 and 2017. Figure 5 presents registered customer accounts by tariff category & system in 2016 & 2017

Figure (4): Electricity Supply by Tariff Category & System - 2016 & 2017

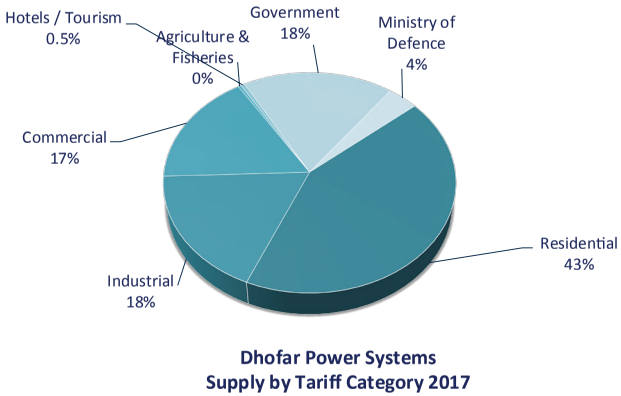
	Main Interconnected System			RAEC Rural Systems			Dhofar Power System		
Category	**2016 MWh**	**2017 MWh**	**% Change**	**2016 MWh**	**2017 MWh**	**% Change**	**2016 MWh**	**2017 MWh**	**% Change**
Residential	12,527,033	13,268,328	6%	400,437	451,348	13%	1,067,331	1,172,414	10%
Industrial	4,607,567	4,487,503	-3%	47,467	38,516	-19%	497,695	494,587	-1%
Commercial	5,817,817	6,827,412	17%	132,921	144,120	8%	562,457	460,204	-18%
Agriculture & Fisheries	351,415	371,048	6%	32,833	44,646	36%	8,962	9,228	3%
Hotels / Tourism	31,381	173,392	453%	28,829	30,508	6%	2,233	13,784	517%
Government	3,280,957	3,143,282	-4%	172,641	169,214	-2%	408,770	501,433	23%
Ministry of Defence	226,442	311,219	37%	33,539	35,618	6%	119,988	102,464	-15%
Totals	**26,842,611**	**28,582,183**	**6.5%**	**848,666**	**913,969**	**8%**	**2,667,434**	**2,754,114**	**3%**



Main Interconnected System
Supply by Tariff Category 2017



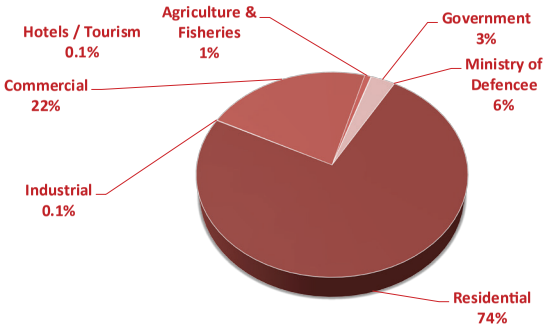
RAEC Systems
Supply by Tariff Category 2017



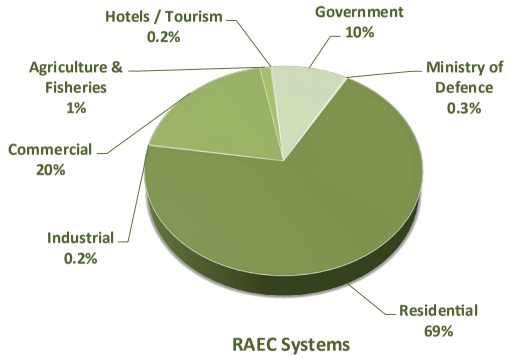
Dhofar Power Systems
Supply by Tariff Category 2017

Figure (5): Registered Customer Accounts by Tariff Category & System - 2016 & 2017

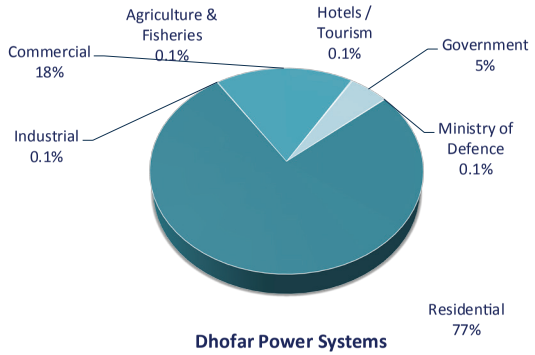
	Main Interconnected System			RAEC Rural Systems			Dhofar Power System		
Category	**2016 Accounts**	**2017 Accounts**	**% Change**	**2016 Accounts**	**2017 Accounts**	**% Change**	**2016 Accounts**	**2017 Accounts**	**% Change**
Residential	699,132	741,912	6%	24,570	25,910	5%	77,203	84,562	10%
Industrial	893	904	1%	61	63	3%	65	104	60%
Commercial	197,303	216,303	10%	6,640	7,291	10%	17,894	19,565	9%
Agriculture & Fisheries	7,840	8,100	3%	443	509	15%	102	105	3%
Hotels / Tourism	527	783	49%	66	67	2%	84	98	17%
Government	32,220	31,614	-2%	3,546	3,558	0%	5,568	5,519	-1%
Ministry of Defence	198	209	6%	132	115	-13%	110	110	0%
Totals	**938,113**	**999,825**	**7%**	**35,458**	**37,513**	**6%**	**101,026**	**110,063**	**9%**



Main Interconnected System
Accounts by Tariff Category 2017



RAEC Systems
Accounts by Tariff Category 2017

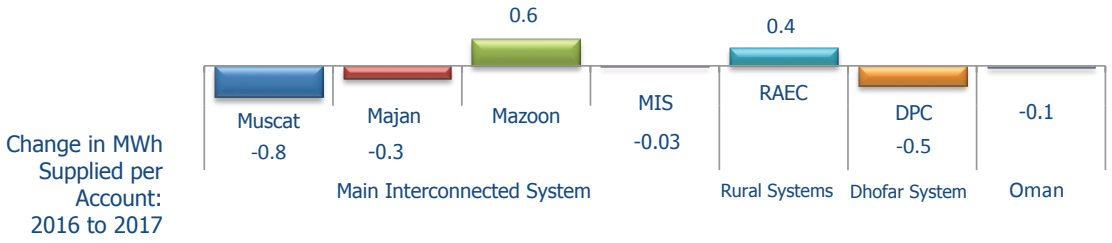


Dhofar Power Systems
Accounts by Tariff Category 2017

Electricity Supply per Account: 2016 & 2017

Electricity intensity (MWh per account) decreased by 0.2% in 2017, from 28.3 in 2016 to 28.2 MWh per account, reflecting a 6.8% increase in total registered accounts compared to a 6.6% increase in supply during the year. Please refer to Figure 6 and Table 3 of Annex C for further details.

Figure (6): MWh Supplied per Registered Account: 2016& 2017



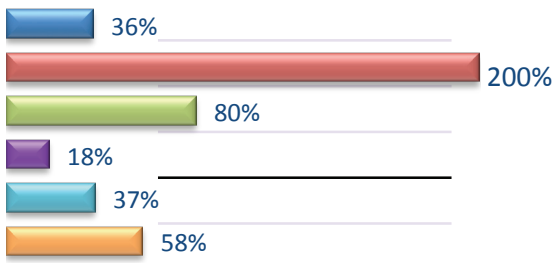
	Muscat	Majan	Mazoon	MIS	RAEC	DPC	Oman
2016 MWh Supply/per Acct	30.8	40.5	20.3	28.6	23.9	26.4	28.3
2017 MWh Supply/per Acct	30.1	40.2	20.9	28.6	24.4	25.9	28.2
net change MWh S/per Acct	***-0.8***	***-0.3***	***0.6***	***-0.03***	***0.4***	***-0.5***	***-0.1***
% change in MWh S/per Acct	-2.5%	-0.8%	3.2%	-0.1%	1.8%	-1.8%	-0.2%

Source: Company returns

The second consecutive year of a decrease in electricity intensity reflects the overall slowdown in supply growth during 2017, 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 2017 the average electricity intensity of all customers increased by 58%, with a significant variation in intensity changes across customer categories

Figure (7): Changes in Electricity Intensity between 2005 and 2017

MWh/Account	***2005***	***2017***	***% change***
Residential	12.8	17.5	***36%***
Industrial*	1,561.5	4,687.8	***200%***
Commercial*	17.2	31.0	***80%***
Agriculture & Fisheries	41.4	48.8	***18%***
Government* & MOD	75.5	103.7	***37%***
All Categories	***17.9***	***28.2***	***58%***



The 200% 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 2017 was 36% and 80% higher, respectively, than in 2005 and who accounted for 69.3% of total 2017 Supply, compared to the 15.5% share of Industrial customers.

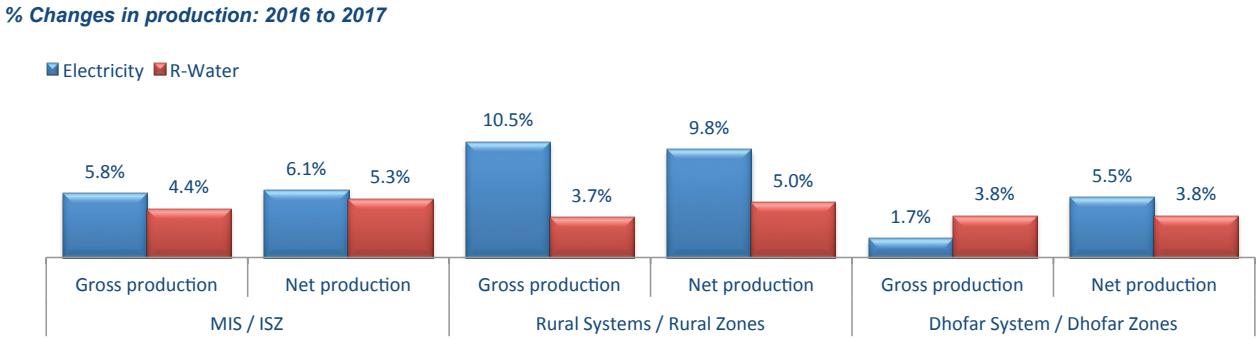
Increasing intensity is an important driver of electricity demand which has implications for costs and subsidy. If the 1,147,401 registered accounts in 2017 had the same average intensity as in 2005, electricity supply in 2017 would have been 36% or 11.76 TWh lower with corresponding reductions in costs 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: 2016 & 2017

In 2017 gross electricity production of 36.1 TWh was 5.5% higher than in 2016. The 35.7 TWh of net electricity generation (including PWP and RAEC purchases from other sources) was 6.1% higher than in 2016. Both, gross and net water production increased by 4.3% and 5.2% (to 308.0 million m³ and 304.9 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: 2016 & 2017



System	Item	Electricity GWh 2016	Electricity GWh 2017	% change	Water '000 m3 2016	Water '000 m3 2017	% change
MIS / ISZ	*Gross production*	30,039.4	31,783.5	5.8%	268,443.9	280,270.0	4.4%
	Net production	29,555.7	31,356.9	6.1%	263,343.5	277,322.6	5.3%
Rural Systems / Rural Zones	*Gross production*	940.0	1,038.3	10.5%	3,424.4	3,549.4	3.7%
	Net production	994.6	1,091.7	9.8%	3,221.4	3,381.0	5.0%
Dhofar System / Dhofar Zones	*Gross production*	3,248.3	3,304.1	1.7%	23,331.5	24,212.1	3.8%
	Net production	3,057.2	3,223.9	5.5%	23,331.5	24,212.1	3.8%
Total Oman	*Gross production*	34,227.7	36,126.0	5.5%	295,199.7	308,031.6	4.3%
	Net production	33,607.4	35,672.6	6.1%	289,896.4	304,915.8	5.2%

Source: Company returns

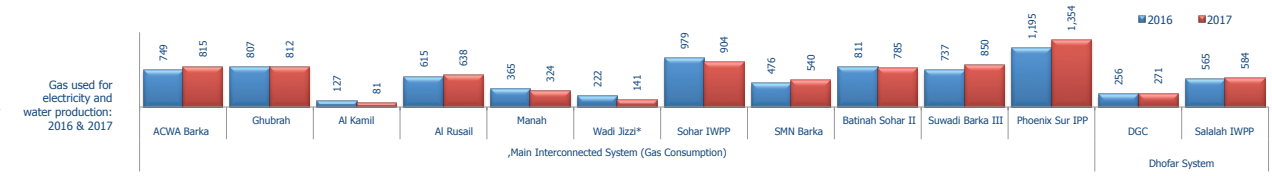
MIS gross generation was 5.8% higher in 2017 than 2016, Rural Systems was 9.8% higher and generation for the Dhofar Power System was 1.7% higher. The net desalinated water production in the Interconnected and Sharqiyah Zones (ISZ) increased by 4.4% in 2017 which accounted for 91% of the increase in total desalinated water production in 2017. Net water production in Rural Zones increased by 5.0% in 2017 and Dhofar Zone by 3.8%.

EWS Fuel Use in 2017

Natural Gas

The electricity and water sector consumed 3.0% more gas in 2017 than 2016, compared to an increase of 6.1% and 5.0% in electricity and water production, respectively, please refer to Figure 9. The specific gas consumption of MIS connected facilities fell to 229 Sm3/MWh in 2017 from 236 Sm3/MWh in 2016 (a 2.7% reduction), and is 35% lower than in 2005.

Figure (9): Gas Consumption at Major Production Facilities: 2016 & 2017



Production Facility:	ACWA Barka	Ghubrah	Al Kamil	Al Rusail	Manah	Wadi Jizzi*	Sohar IWPP	SMN Barka	Batinah Sohar II	Suwadi Barka III	Phoenix Sur IPP	DGC	Salalah IWPP	MuscatCity IWP**	Sharqyiyah Sur IWP**	Musandam Power Company	Total
Fuel	Gas	Gas	Gas	Gas	Gas	Gas	Gas	Gas	Gas	Gas	Gas	Gas	Gas				Gas
2016 gas use: Sm3 10^6	749	807	127	615	365	222	979	476	811	737	1,195	256	565	-	-		**7,904**
2017 gas use: Sm3 10^6	815	812	81	638	324	141	904	540	785	850	1,354	271	584	-	-	43	**8,143**
% of total 2016 gas use	*10%*	*10%*	*1%*	*8%*	*4%*	*2%*	*11%*	*7%*	*10%*	*10%*	*17%*	*3%*	*7%*	-	-		***100%***
% change in gas use	*8.8%*	*0.7%*	*-36.5%*	*3.8%*	*-11.2%*	*-36.3%*	*-7.6%*	*13.5%*	*-3.2%*	*15.3%*	*13.3%*	*5.9%*	*3.4%*	**-**	**-**		***3.0%***
% change in Gross Electricity and Gross Water Output: 2017 to 2016																	
Electricity	*-12.0%*	*5.0%*	*77.9%*	*-5.6%*	*1.5%*	*63.6%*	*10.1%*	*-15.5%*	*1.9%*	*-9.8%*	*-17.7%*	*11.0%*	*-5.5%*	**-**	**-**	**-**	***6.1%***
Water	*-3.8%*	*12.8%*					*4.0%*	*5.8%*					*3.8%*	**-**	**-**	**-**	***5.0%***

Source: PWP & Company returns

* Wadi Jizzi Power Plant only, excludes OMCO units

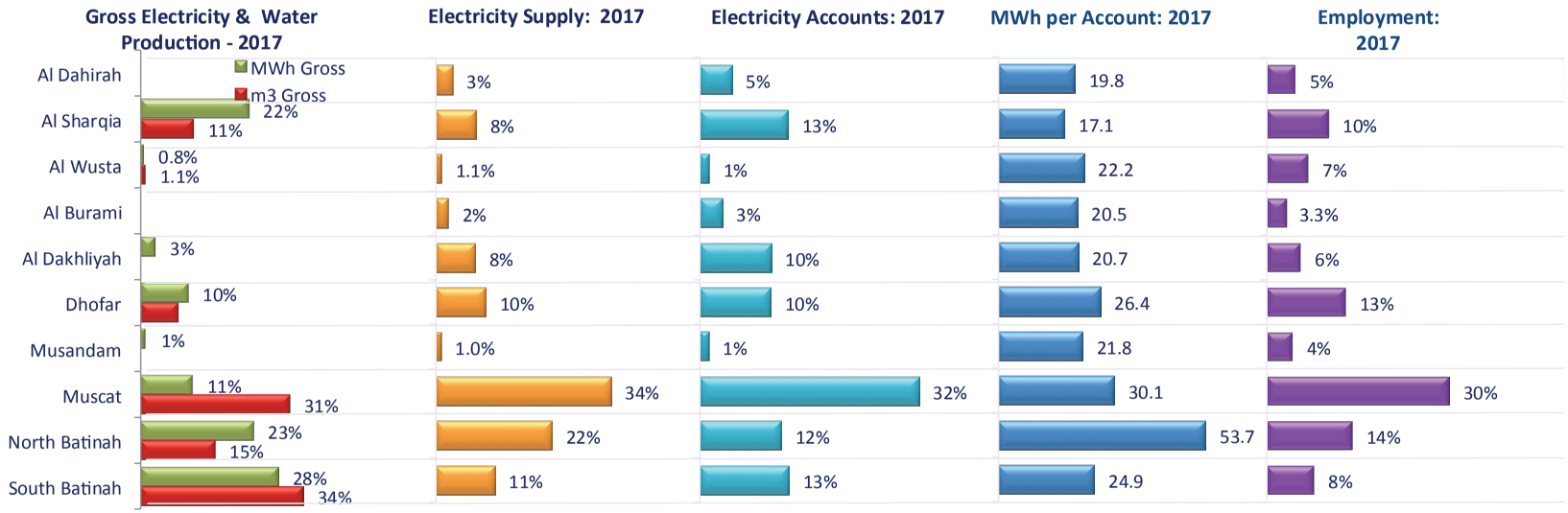
** Muscat CityIWP & Sharqyiyah Sur IWP plants, no direct gas utilization.

EWS Activity by Region: 2017

While all regions of Oman benefited from electricity and water sector activity in 2017, activity is heavily concentrated in Muscat, North Batinah and South Batinah. These three areas accounted for 63% of 2017 electricity production, 80% of water production, 67% of supply, 56% of customer accounts and 52% of sector related employment in 2017.

Figure (10): Electricity & Water Sector Activity by Region 2017

	Electricity Production		Water Production		Electricity Supply & Accounts			Employment
Regions	MWh Gross	MWh Net	m3 Gross	m3 Net	MWh Supplied	Accounts	MWh per Account	Direct + Contractors
Al Dahirah	1,859	1,822			1,050,960	53,198	19.8	407
Al Sharqia	8,109,769	8,093,729	34,039,289	33,334,863	2,498,654	146,090	17.1	883
Al Wusta	278,261	388,156	3,420,890	3,254,230	348,860	15,682	22.2	590
Al Burami					764,662	37,276	20.5	287
Al Dakhliyah	1,133,239	1,125,513			2,447,288	118,254	20.7	482
Dhofar	3,590,696	3,525,711	24,265,848	24,265,320	3,097,893	117,208	26.4	1,122
Musandam	389,051	363,930	74,775	73,610	320,548	14,686	21.8	366
Muscat	3,887,961	3,735,915	95,028,614	94,305,330	10,918,517	362,891	30.1	2,595
North Batinah	8,449,023	8,754,966	47,730,651	46,531,941	7,236,405	134,721	53.7	1,216
South Batinah	10,286,098	9,682,844	103,471,487	103,150,479	3,665,697	147,395	24.9	673
Totals	**36,125,957**	**35,672,587**	**308,031,553**	**304,915,773**	**32,349,484**	**1,147,401**	**28.2**	**8,621**

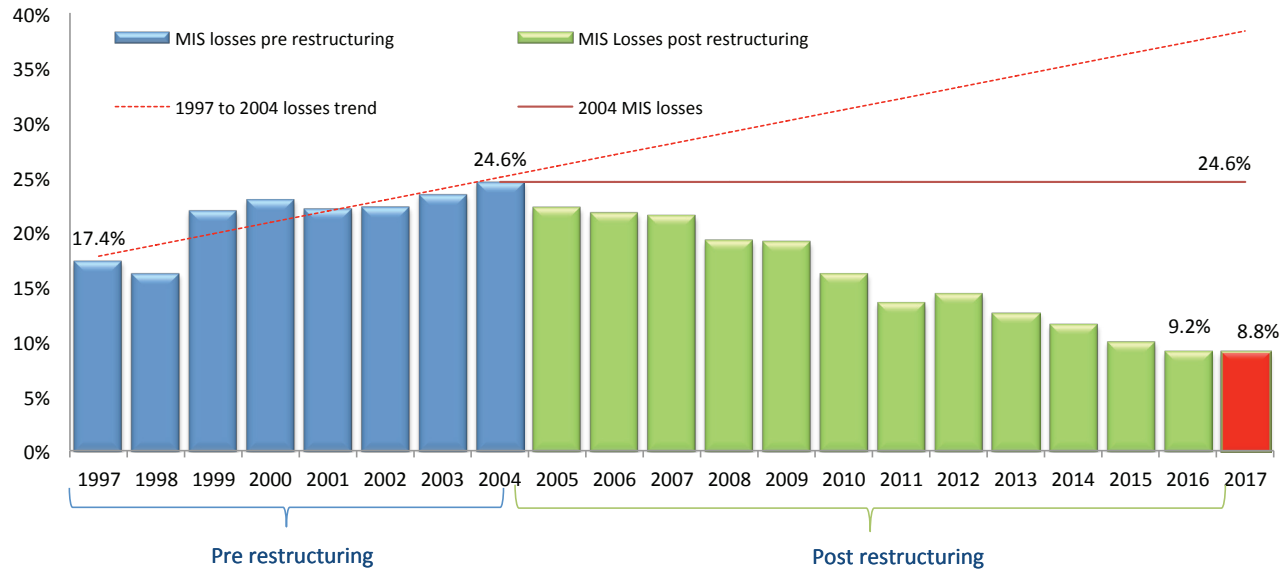


System Losses

Outturn 2017 data of units supplied and units entering electricity systems confirms that MIS losses, which accounts for approximately 90% of the total share of electricity supply in Oman, decreased from 9.2% in 2016 to 8.8% in 2017 and Dhofar Power System losses decreased slightly from 12.7% in 2016 to 11.5% in 2017, while RAEC losses increased from 14.7% in 2016 to 16.3% in 2017.

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 Authority is pleased to note that the outturn MIS losses in 2017 (of 8.8%) are lower than the target level of losses set for the year in 2014 when the Distribution losses target were set.

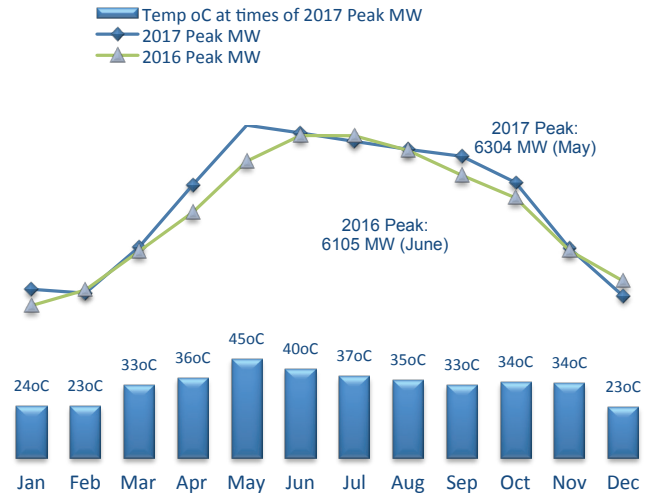
The significant losses reductions achieved since the sector restructuring in 2005 reflects the application of a clear incentive based price control mechanism and the constructive responses of licensees.

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 9.2% in 2016 to 8.8% in 2017 returned benefits of around OMR 1.1 million (the benefit is OMR 49.3 million if assessed against 2004 losses of 24.6%). The cumulative value of MIS losses reductions since 2004 is OMR 29.3 million, and in present value terms the benefit of MIS losses reductions in 2017 is around OMR 18 million, using a discount rate of 6% (OMR 822 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 2016 and 2017

Figure 12 presents monthly MIS peak demands in 2016 and 2017

Figure (12): Main Interconnected System Peak Demand - 2016 & 2017

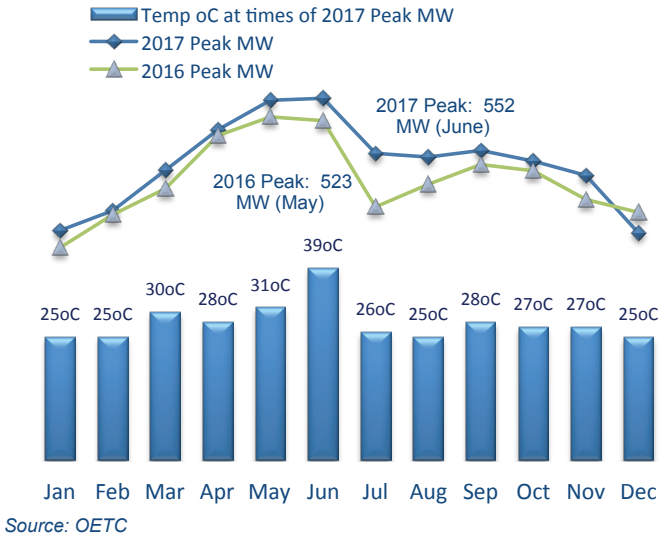


Source: OETC

	2016 Peak MW	2017 Peak MW	% change	Temp oC at times of 2017 Peak MW
Jan	2,846	3,160	11%	24
Feb	3,146	3,085	-2%	23
Mar	3,889	3,968	2%	33
Apr	4,635	5,161	11%	36
May	5,613	6,304	12%	45
Jun	6,105	6,155	1%	40
Jul	6,104	5,992	-2%	37
Aug	5,821	5,843	0%	35
Sep	5,346	5,708	7%	33
Oct	4,910	5,207	6%	34
Nov	3,901	3,946	1%	34
Dec	3,316	3,029	-9%	23
Max MW	**6,105**	**6,304**	**3%**	

Figure 13 presents Dhofar Power System monthly peak demands in 2016 and 2017.

Figure (13): Dhofar Power System Peak Demand - 2016 & 2017



Source: OETC

	2016 Peak MW	2017 Peak MW	% change	Temp oC at times of 2017 Peak MW
Jan	324	350	8%	25
Feb	374	380	2%	25
Mar	414	442	7%	30
Apr	495	504	2%	28
May	523	549	5%	31
Jun	518	552	7%	39
Jul	386	468	21%	26
Aug	421	462	10%	25
Sep	451	472	5%	28
Oct	441	456	3%	27
Nov	398	434	9%	27
Dec	378	346	-8%	25
Max MW	**523**	**552**	**5%**	

Electricity Demand Forecasts

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 12, for the period 2018 to 2024) 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 9,010 MW in 2024 which is slightly higher to the previous forecast. The "low case" projects 4% annual growth, resulting in peak demand of 8,100 MW in 2024, the "high case" projects 8% annual growth and peak demand at 10,510 MW in 2024, about 1,500 MW higher than the expected case.
In terms of energy, the expected, low and high case forecasts for 2024 are 49TWh, 43 TWh and 57 TWh respectively; and

Dhofar System: in the "expected case" peak demand is expected to grow at 6% per year, reaching 810 MW in 2024. The "low case" projects 4% annual growth, reaching 740 MW by 2024. The "high case" allows for more rapid industrialization, and has peak demand increasing at 8% per year to reach 950 MW in 2024.
In terms of energy, the expected, low and high case forecasts for 2024 are 5.1 TWh, 4.6 Wh and 6.0 TWh respectively.

Please refer to Issue 12 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: 2017

Licensed system operators (OETC, MEDC, Majan, Mazoon, RAEC and DPC) approved 488 projects in 2017, with a total value of OMR 165.2 million. Figure 1 presents details of the approved projects by Licensee, region and value.

Table (1): Project Approvals by Licensees in 2017

		Company							
Region		OETC*	Muscat	Majan	Mazoon	RAEC	DPC	**Totals**	**% Total**
Al Dahirah	RO	5,047,134		4,209,726				**9,256,860**	5.6%
Al Sharqiya	RO	23,387,496			4,015,442			**27,402,938**	16.6%
Al Wusta	RO					4,772,467		**4,772,467**	2.9%
Dakhiliya	RO	17,794,811			7,132,613			**24,927,424**	15.1%
Dhofar	RO					1,324,218	18,152,936	**19,477,154**	11.8%
Musandam	RO					1,175,905		**1,175,905**	0.7%
Muscat	RO	38,883,956	23,189,252			449,383		**62,522,592**	37.9%
North Batinah	RO			8,613,575				**8,613,575**	5.2%
South Batinah	RO				6,582,183			**6,582,183**	4.0%
Al Buraimi	RO			447,251				**447,251**	0.3%
Total Value		**85,113,397**	**23,189,252**	**13,270,552**	**17,730,239**	**7,721,973**	**18,152,936**	**165,178,349**	
% of Total		**51.5%**	**14.0%**	**8.0%**	**10.7%**	**4.7%**	**11.0%**		
Number of Projects		8	22	19	14	15	411	**489**	

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 51.5% of approved projects by value, which reflects the significant investment made to connect and transport electricity from production facilities. MEDC accounts for 14.0% of projects value, DPC 11.0%, Mazoon 10.7% , Majan 8.0% and RAEC 4.7%.

In terms of regional investment, Muscat region accounts for 37.9% (OMR 62.5 million) due to significant network investments by OETC, MEDC and RAEC in this region. All regions benefited from ERWS sector investment in 2017 in line with the government's policy commitment to provide electricity and related water services throughout the Sultanate.

EWS Employment & Omanisation: 2016 and 2017

The Authority undertakes an annual survey of the 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 2017 survey.

Table (2): Total EWS Employment by Type, Nationality and Function: 2016 & 2017

		2016			2017		
Type	Function	Omani	Expatriate	Total	Omani	Expatriate	Total
Direct	Admin & Supervisory	999	58	1,057	905	51	956
	Managerial	260	60	320	240	54	294
	Operations	314	28	342	417	28	445
	Technical	901	118	1,019	871	104	975
	Others	124	8	132	119	9	128
Direct Total		**2,598**	**272**	**2,870**	**2,552**	**246**	**2,798**
Contractor	Admin & Supervisory	423	224	647	226	289	515
	Managerial	174	124	298	135	107	242
	Operations	1,403	637	2,040	968	747	1,715
	Technical	591	1,341	1,932	325	965	1,290
	Others	997	709	1,706	1,262	799	2,061
Contractor Total		**3,588**	**3,035**	**6,623**	**2,916**	**2,907**	**5,823**
Total Employment		**6,186**	**3,307**	**9,493**	**5,468**	**3,153**	**8,621**
% Change from 2016					*-11.6%*	*-4.7%*	*-9.2%*

Source: Authority 2017 employment survey

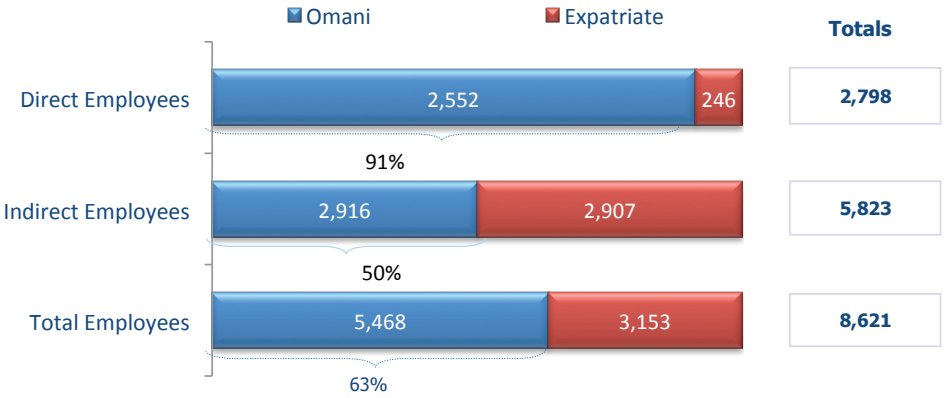
In 2017 the Direct employment was 2.5% lower than in 2016. Indirect employment in 2016 (5,823) was 12.0% lower than the previous year.

Since 2005, total (Direct and Indirect) employment has increased by 80% from 4,796 to 8,621 in 2017. Direct employment accounts for 45% of this increase, with Omani nationals accounting for 92% of the increase in Direct employment.

Figure 14 presents the 2017 Omanisation rates for Direct and Indirect employment.

Figure (14): EWS Employment & Omanisation: 2017

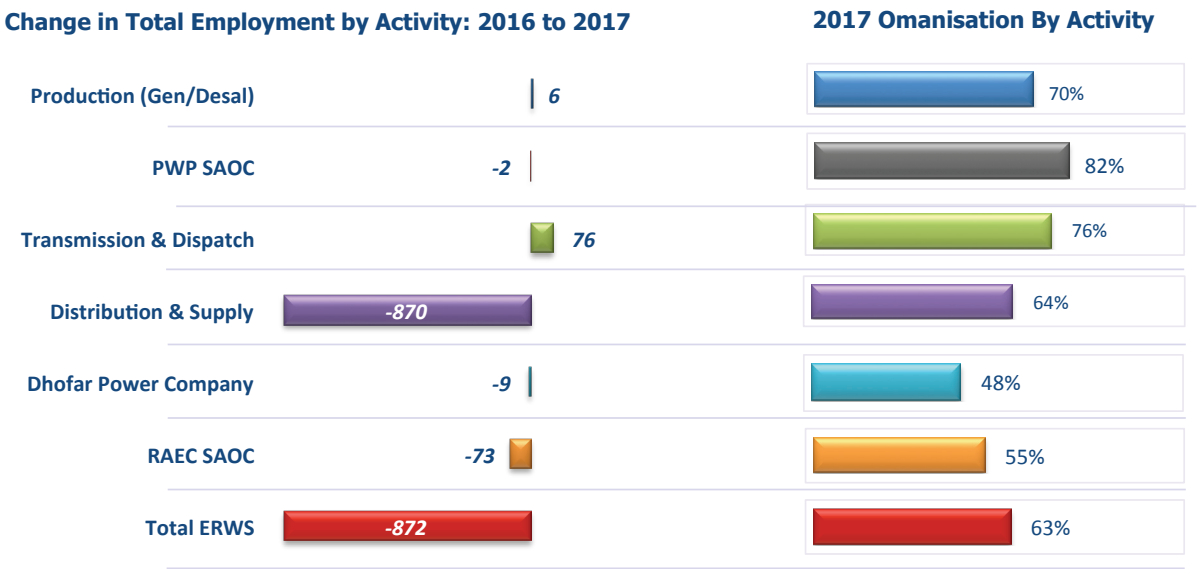
	Omani	Expatriate	Total	% Omani
Direct Employees	2,552	246	2,798	91%
Indirect Employees	2,916	2,907	5,823	50%
Total Employees	**5,468**	**3,153**	**8,621**	**63%**



Source: Authority 2017 employment survey

Omani nationals accounted for 91% of Direct employment in 2017 and for 50% of Indirect employment, contributing to a sector Omanisation rate of 63%.
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: 2017



The reduction in 2017 electricity sector employment (shown in Figure 16) reflects the prevailing conditions. It shows a significant reduction of 872 staff from 2016, primarily from indirect (sub-contractor) staff in the Distribution network business.

Electricity & Related Water Sector Issues in 2017

Health and Safety

Pursuant to its duties under the Sector Law, the Authority continued its efforts to increase awareness of the importance of health and safety in a number of ways, including:

a) Continuing routine inspections of licensee assets in public areas to identify unsecure and potentially unsafe installations, issuing fines to ensure improvement;
b) Running a safety awareness programme "isitsafe" for sector companies which included both workshops and practical walkabout sessions to drive a deeper understanding of potential hazards from electrical installations; and
c) Conducting operational audits of network licensees to follow up on a key action from previous regulatory audits.

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 2017. Regrettably, lives are still lost by people working in the electricity sector, with six deaths reported to the Authority in 2017.

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

Date	Location	Licensee	Incident
21 January 2017	Rustaq	Mazoon	A contractor was killed when a pole that was being erected fell on him.
17 August 2017	Shahab Assaib	RAEC	A contractor was killed when he fell from a roof he was working on.
26 September 2017	Amerat	MEDC	Two emergency contractors were killed in a road traffic accident involving another vehicle.
8 October 2017	Nizwa	Mazoon	A road traffic accident killed one contractor and injured four when their vehicle rolled over.
14 November 2017	Taqa	DPC	A linesman was killed when a pole he was working on collapsed.

Safety Awareness – *"isitsafe"*

In following up actions in response to recommendations from formal health and safety audits, and in noticing a continued level of potentially unsafe electricity assets for which fines had been issued, the Authority decided to run awareness workshops with leaders of the electricity sector. The workshop ran over two days. The first day encouraged a frank and open discussion of the achievements made and challenges that remain for sector companies. The second day comprised a walkaround of a typical electricity network to highlight hazards on the ground.

Operational Audit of Licensees

The Authority conducted audits of how network licensees conduct operational audits. This work was undertaken as a response to findings from regulatory audits and incident investigations. Although it is not an explicit licence condition for operational audits to be undertaken, they are a tool that enables licensees to prevent a decline in operational standards to ensure ongoing compliance with several critical licence

conditions. The audit findings highlighted a range of practices in the sector, from best practices to those with significant opportunities for improvement.

Power System Protection Capability – Appropriate Person Audits

As noted in previous Annual Reports, the Authority has been following up the status of the power system protection capability pursuant the Appropriate Person Criteria. In 2017, a further follow-up audit noted a continued improvement in the sector overall, and that the companies that had previously met the required standard had continued to improve and could be considered to be working at a level of industry best practice. However, two companies had not met the required standard, as shown in Table 1, with the auditors noting with disappointment that the gap between the companies who have achieved the standard and those who have not appears to be widening.

Table (4): Power System Protection Summary

Date	Location	Licensee	Incident
OETC	1	Excellent	Achieved
MJEC	2	Excellent	Achieved
MZEC	3	Excellent	Achieved
DPC	4	Very Good	Achieved
MEDC	5	Disappointing	Possible with Senior Management Support
RAEC	6	Disappointing	Possible with Senior Management Support

The Authority was pleased that the audit report appears to have prompted MEDC to take actions that resulted in meaningful progress being demonstrated to improve performance. Regrettably, the same was not noted for RAEC, which is a significant concern.

Professional Development of Authority Staff

The Authority is committed to the professional development of Omani staff. In 2017;

(i) Mahmoud Al Habsi completed a MS.c in Electrical Energy Systems at Cardiff University Passing with Distinction; and

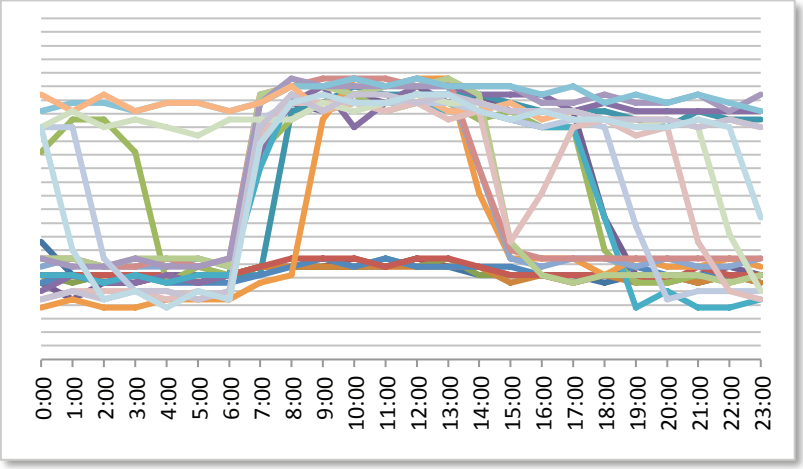
(ii) Salma Al Ismaili has commenced an MS.c in Economics at City University London.

Regulatory Focus 1– Building Energy Audits

The Financial Affairs and Energy Resources Council in 2015 assigned the Authority the responsibility of developing and implementing energy efficiency programmes for Oman. Since then, the Authority has taken a number of initiatives related to energy efficiency, one of which is carrying out energy audits for several government buildings. The main objective of the audits is to understand the trends and drivers of electricity consumption, as well as identify measures and recommendations on how electricity can be more efficiently consumed in these buildings.

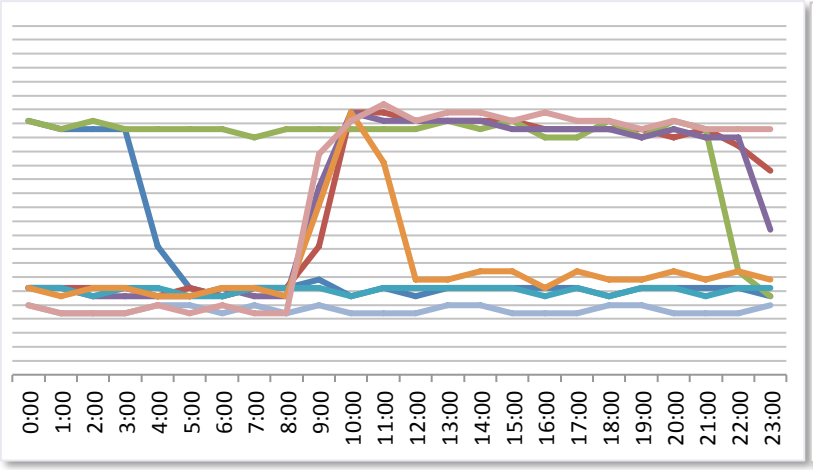
The first step was to collect electricity consumption data: over the three years prior to the audit as well as hourly consumption throughout the audit. All consumption data was then analysed and is illustrated in Figures 16 and 17 below:

Figure (16): Sample hourly consumption during weekdays (kW)



While the majority of days have a normal trend of consumption, whereby electricity is mostly consumed during working hours (6 am to 3 pm), there are a few days where clearly some equipment and appliances

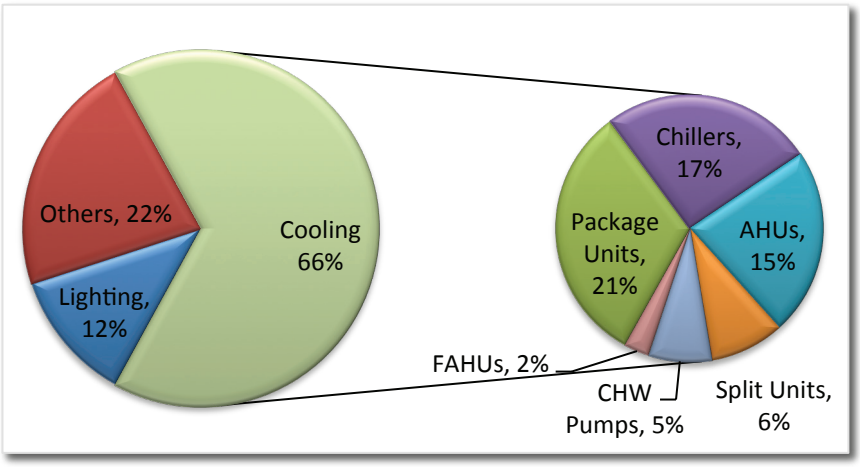
Figure (17): Sample hourly consumption during weekends (kW)



Even during weekends some equipment and appliances are kept switched on to the extent that total consumption is equivalent to weekdays.

The audits also revealed the consumption breakdown of main consuming appliances in each building as shown in figure 18.

Figure (18): Consumption break-down by end use



Space cooling is evidently the major driver of energy consumption in government buildings. For this reason, the majority of the audit's recommendations was to reduce consumption and improve the buildings' efficiency were to do with cooling. The audit also listed the recommendations in terms of required investment, expected savings, and net present value. A summary of these recommendations is explained in Table 1 below.

Table (5): Recommended Energy Conservation Measures from Building Audits

Date	Energy Conservation Measure	Approx. Savings kWh/yr	Investment level
1	Behavioral measures: dedicate an energy manager to ensure that cooling systems, lighting and other office equipment are switched off when not needed. This also includes removing unnecessary bulbs from naturally lit areas; constraining the use of spot and decorative lighting to special events; and setting office equipment on power saving mode.	465,000	No Cost
2	Chiller Plant optimization Controls: install a control system that determines when to add or subtract (off-load) a chiller, and whether they are to be operated at full load or part load operation.	40,000	Low Cost
3	Air Handling Unit (AHU) Variable Frequency Drive (VFD) Retrofit: a new technology for AHUs that allows the unit's drive to run at variable speeds.	200,000	Low Cost
4	FAHU Variable Frequency Drive (VFD) Retrofit: a new technology for FAHU that allows the unit's drive to run at variable speeds.	40,000	Low Cost
5	Adiabatic/evaporative Cooling: a system that uses vapor to cool the surroundings of the outdoor units of chillers in order to improve the efficiency of chiller's units.	130,000	Med Cost

6	Inverter Retrofit of Split AC Units: An Air-Conditioner Inverter is used to control the speed of the compressor motor to drive variable refrigerant flow in an air conditioning system to regulate the conditioned-space temperature.	125,000	Med Cost
7	VRF-AHU AC Retrofit for Package Units: a new technology for AHUs that allows Variable Refrigerant Flow which in turn reduces the consumption of the AHUs.	460,000	Med Cost
8	Heat reflective Window Film: installing heat reflective window film for the external window / glazing will result in substantial energy savings by reducing the solar heat gain and thereby energy savings from the air conditioning energy consumption.	60,000	Med Cost
9	LED Lighting Retrofit: replace the existing inefficient lighting such as fluorescent lamps, compact fluorescent, halogen etc., with more energy efficient equivalent LED lamps / fixtures.	245,000	Med Cost
10	Chiller Replacement: Installing new chillers creates several miscellaneous benefits besides energy savings. New machines can offer features that include: If integrated with VFDs, these chillers offer better part-load operation and more stable water temperatures; easier operator interface and controls.	120,000	High Cost

Regulatory Focus 2 - Small Scale Grid Connected Solar PV Systems – Sahim Initiative

Background

In May 2008, the Authority published an assessment of Oman's renewable energy potential with recommendations on how renewable resources might be efficiently and effectively utilised. The study found solar energy density in Oman to be amongst the highest in the world.

The Sahim Initiative

Building on the 2008 study recommendations and with the Authority's strong commitment to promoting an eco-friendly lifestyle, creating a greener future for generations to come, and contributing to the development and prosperity of Oman, the Authority launched 'Sahim', a renewable energy initiative. Taking advantage of the country's abundant year-round sunshine, Sahim, which means 'contribute' in Arabic, aims to introduce rooftop solar panels to buildings across the country to enable the generation of sustainable and affordable clean energy. The energy generated from renewable resources will reduce the reliance on local fossil-fuel energy resources, as well as produce a surplus of power that can be shared for the benefit of the community as a whole.

Prior to introducing the initiative the Authority consulted with stakeholders on establishing a Regulatory Framework for Small Scale Grid Connected Solar PV Systems Standards. The regulatory framework was developed to ensure the safe and efficient implementation of the panels, and it covers all aspects of their use including the connection of the panels to local electricity and distribution networks. Anyone, or any company, taking part in Sahim must strictly adhere to these regulations at all stages of their involvement, from obtaining of the necessary permits through to the final operation phase.

The objectives of SAHIM include:

To promote renewable energy in Oman through the deployment of a clean, sustainable and efficient technology (photo voltaic) at residential and other Premises; To promote demand reduction, particularly at times of system peak demand, and thereby reduce quantities of electricity supplied from the Main Interconnected System sourced from centrally dispatched gas plant;

To promote distributed generation and thereby reduce the magnitude and cost of Transmission and Distribution System losses; and To deliver long term reductions in electricity subsidy.

The SAHIM initiative will proceed in phases:

The 1st phase commenced in May 2017 and allows households and businesses who install rooftop PV solar systems, at their own cost, to be compensated for PV electricity exported to a licensed system at the relevant approved Bulk Supply Tariff ("BST");

The 2nd phase will drive the wide scale deployment of small PV systems (3kWp – 5kWp) at between 10% to 30% of residential Premises in Oman (the "ResPV initiative"). Unlike the 1st phase of SAHIM, the costs of procuring, installing, operating and maintaining residential PV systems in the 2nd phase will not be met by Customers but by private sector entities who will recover related costs and returns on investment through contracts with Licensed Suppliers.

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	**The Authority does not consider the market ready for this liberalisation measure.** 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.
2	Permitting licensed Production Facilities to sell to persons other than Oman Power and Water Procurement Company SAOC	**The Authority does not consider the market ready for this liberalisation measure.** 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. 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. The electricity spot market is expected to be functional by 2020.
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	**The Authority does not consider the market ready for this liberalisation measure.** 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.

4	Creation of competition amongst Licensed Suppliers	**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.** The Authority appointed a specialised consultant, to advise on the Blueprint for introduction of competition between licensed suppliers and the measures that could be implemented whilst taking into account the existence of a number of Oman specific factors. These include: Government subsidy; the application of uniform national tariffs; wholesale market development; and State ownership of distribution and supply licence holders. Early indications suggest that the review is likely to confirm that the introduction of competition between licence holders and new market entrants is feasible and desirable. Although the precise arrangements will need to reflect the specific circumstances of the Oman market, many of the features and arrangements that characterise international best practice can be incorporated into the approach to be recommended. The work is due to be completed by the end of April 2018.

Electricity Subsidy

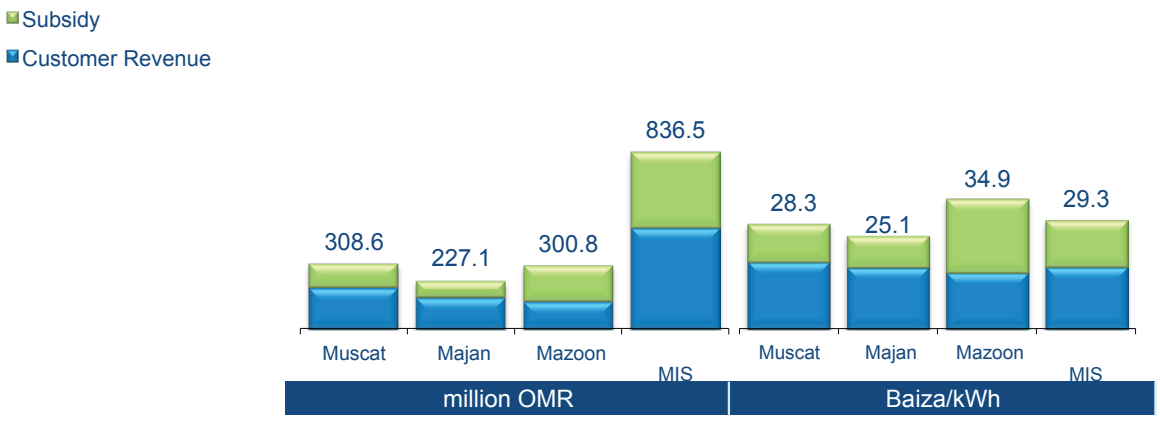
Article (18) of the Sector Law implements a mechanism through which the Ministry of Finance provides electricity Subsidy calculated by the Authority to licensed suppliers on an annual basis. The Authority undertakes three separate Subsidy calculations: (i) Main Interconnected System Subsidy (required by MEDC, Majan and Mazoon); (ii) Dhofar Power System Subsidy (required by DPC); and (iii) Rural Systems Subsidy (required by RAEC).

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

MIS Subsidy in 2017

Outturn MIS Subsidy in 2017 was OMR 362.0 million. This reflects total economic costs of OMR 836.5 million and customer revenues of OMR 474.5 million. Figure 19 presents outturn MIS Subsidy in 2017 by company.

Figure (19): 2017 MIS Outturn Subsidy by Company



Item	MEDC	Majan	Mazoon	MIS	MEDC	Majan	Mazoon	MIS
Customer Revenue	195.8	149.0	129.7	**474.5**	17.9	16.5	15.1	**16.6**
Subsidy	112.8	78.1	171.0	**362.0**	10.3	8.6	19.9	**12.7**
Economic Cost	308.6	227.1	300.8	**836.5**	28.3	25.1	34.9	**29.3**
Subsidy % Economic Cost	37%	34%	57%	**43%**	37%	34%	57%	**43%**
Company share of Subsidy	31%	22%	47%	**100%**				

Source: 2016 audited SCRC Statements & Authority calculations

2017 MIS Subsidy accounted for 43% of the total economic cost of supply (OMR 836.5 million), the remaining 57% of costs was recovered through customer revenue.

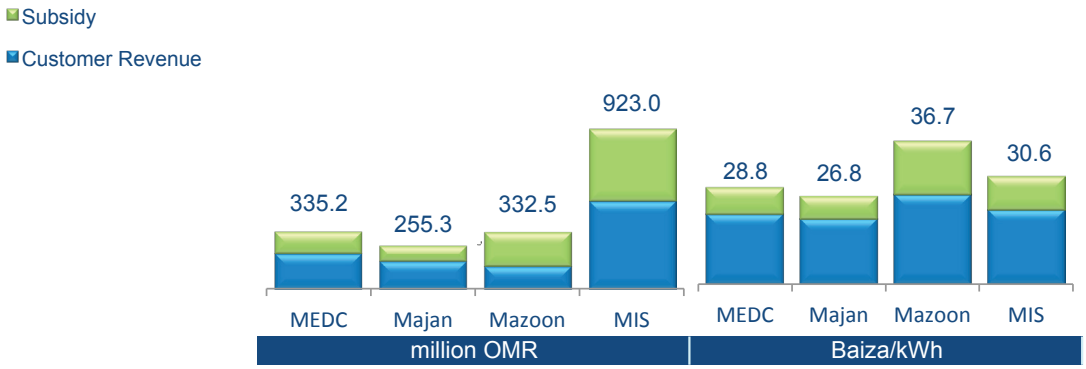
MEDC, Majan and Mazoon accounted for 31%, 22% and 47%, respectively, of total 2017 MIS Subsidy. MEDC's 2017 Subsidy of OMR 112.8 million accounted for 37% of its total economic cost requirements, while Subsidy to Majan and Mazoon (OMR 78.1 million and OMR 171 million respectively) constituted 34% and 57% of their respective 2017 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 2017 MIS outturn Subsidy

2018 MIS Subsidy Forecast

The Authority's estimate of 2018 MIS Subsidy is OMR 416.4 million. This reflects total estimated economic costs of OMR 923.0 million of which 55% (or OMR 506.6 million) is expected to be recovered through customer revenues.

Figure (20): Subsidy Forecast - Main Interconnected System 2017



Item	MEDC	Majan	Mazoon	MIS	MEDC	Majan	Mazoon	MIS
Customer Revenue	207.4	164.6	134.6	**506.6**	17.8	17.3	14.9	**16.8**
Subsidy	127.8	90.8	197.8	**416.4**	11.0	9.5	21.8	**13.8**
Economic Cost	335.2	255.3	332.5	**923.0**	28.8	26.8	36.7	**30.6**
Subsidy % Economic Cost	38%	36%	60%	**45%**	38%	36%	60%	**45%**
Company share of Subsidy	31%	22%	48%	**100%**				

Source: Authority calculations

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

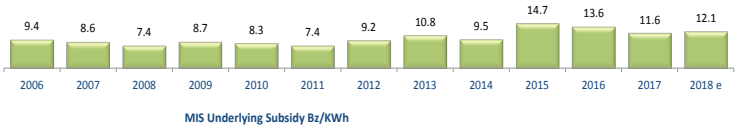
Underlying Movement in MIS Subsidy: 2006 to 2017, and 2018 estimate

Figure 21 presents the Authority's underlying measure of MIS Subsidy between 2006 and 2017 and expected MIS Subsidy in 2018. The underlying measure assumes revenue, costs and efficiencies were correctly forecast between 2006 and 2017 so as to return zero correction factors. The 2018 estimate of MIS Subsidy reflects the 2018 MAR of PWP, OETC, MEDC, Majan and Mazoon and assumed growth in Supply of 5.7%.

Figure (21): Underlying Movement in MIS Subsidy: 2006 to 2017 & 2018 Forecast

Economic Cost (OMR m)	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018 e
PWP (MAR excluding Kt)	140.5	144.5	161.2	177.6	198.3	222.5	249.6	295.4	312.0	498.5	504.5	522.8	572.8
OETC (MAR excluding Kt)	26.5	27.9	31.5	38.5	41.4	44.0	46.9	65.2	68.6	73.9	74.1	73.2	74.7
MEDC (MAR excluding Kt)	22.8	23.8	23.9	32.3	34.9	38.8	55.8	59.2	62.6	64.7	67.8	67.9	65.3
Majan (MAR excluding Kt)	16.6	17.8	19.6	26.0	28.0	30.8	40.8	42.1	44.4	53.1	50.6	53.5	57.7
Mazoon (MAR excluding Kt)	23.0	24.2	27.6	37.5	41.2	45.2	63.3	65.8	68.5	82.8	83.8	87.9	101.2
Underlying Economic Cost	**229.6**	**238.2**	**263.8**	**311.9**	**343.8**	**381.3**	**456.4**	**527.7**	**556.1**	**773.0**	**780.8**	**805.3**	**871.7**
Permitted Tariff (& other) Revenue	143.1	153.9	179.8	201.5	227.1	259.9	286.4	311.2	345.9	399.0	415.5	474.5	506.6
Underlying Economic Subsidy Requirement	**86.5**	**84.3**	**84.0**	**110.4**	**116.7**	**121.5**	**170.0**	**216.5**	**210.2**	**374.0**	**365.3**	**330.8**	**365.1**
Total Units Supplied (GWh)	9,194	9,778	11,317	12,714	14,122	16,374	18,502	20,021	22,098	25,513	26,843	28,582	30,208
Nominal													
Underlying Economic Cost per kWh Supplied	25.0	24.4	23.3	24.5	24.3	23.3	24.7	26.4	25.2	30.3	29.1	28.2	28.9
Customer Revenue per kWh Supplied (bz/kWh)	15.6	15.7	15.9	15.9	16.1	15.9	15.5	15.5	15.7	15.6	15.5	16.6	16.8
Underlying Subsidy per kWh Supplied (bz/kWh)	9.4	8.6	7.4	8.7	8.3	7.4	9.2	10.8	9.5	14.7	13.6	11.6	12.1
Real (2018 prices)													
Underlying Economic Cost per kWh Supplied	36.5	34.6	31.4	28.9	28.4	26.3	26.6	27.7	26.2	31.1	29.8	28.4	28.9
Underlying Subsidy per kWh Supplied (bz/kWh)	13.7	12.3	10.0	10.2	9.6	8.4	9.9	11.4	9.9	15.1	13.9	11.6	12.1

MIS Underlying Subsidy million OMR



MIS Underlying Subsidy Bz/KWh

Source: Authority calculations

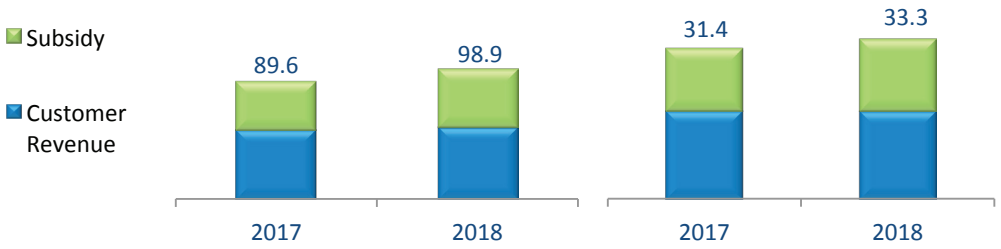
Underlying MIS Subsidy declined by 9.4% (or OMR 34.5 million) in 2017, compared to a 6.5% growth in supply and a 3.1% (or OMR 24.5 million) increase in economic cost over the year. Customer revenue increased by OMR 14.2% (or OMR 59.0 million) during the year, reflecting the introduction of Cost Reflective Tariffs ("CRT") for large Government, Commercial and Industrial customers from 1 January 2017. On a per unit basis, underlying Subsidy per kWh declined by 15%: from 13.6 baiza/kWh in 2016 to 11.6 baiza/kWh in 2017. The Authority estimates that this will increase to 12.1 baiza/kWh in 2018.

Dhofar Power System

Outturn DPS Subsidy in 2017 was OMR 37.1 million. This reflects a total economic cost of OMR 89.6 million and customer revenue of OMR 52.5 million, which increased by around 27% mainly as a result of the introduction of Cost Reflective Tariffs. In 2017 DPS Subsidy accounted for 41% of the total economic cost of supply (OMR 89.6 million), the remaining 59% of costs was recovered through customer revenue.

Figure 22 compares outturn 2017 Subsidy and our 2018 estimate of DPS Subsidy.

Figure (22): DPS 2017 Outturn & 2018 Subsidy forecast



	million OMR		Baiza/kWh	
Item	**2017**	**2018**	**2017**	**2018**
Customer Revenue	**52.5**	**54.5**	18.4	18.3
Subsidy	**37.1**	**44.4**	13.0	14.9
Economic Cost	**89.6**	**98.9**	31.4	33.3
Subsidy % Economic Cost	**41%**	**45%**	41%	45%

Source: 2017 audited SCRC Statements & Authority calculations

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.

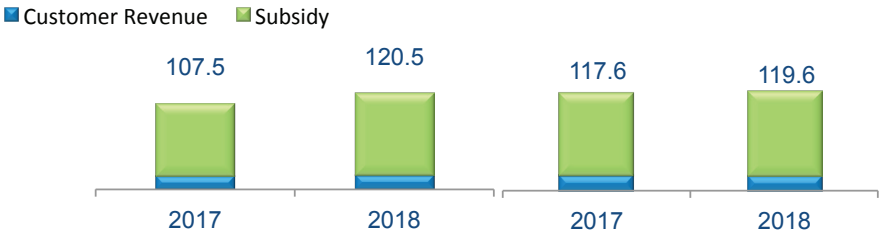
Please refer to Annex D for further details of the 2016 outturn DPC Subsidy and 2017 DPC Subsidy estimate

Rural Systems

Outturn RAEC Subsidy in 2017 was OMR 90.5 million (99 baiza/kWh). This reflects a total economic cost of OMR 107.5 million (117.6 baiza/kWh) and OMR 17.0 million (18.6 baiza/kWh) in customer revenue.

Figure 23 compares outturn 2017 Subsidy and our 2018 estimate of RAEC Subsidy

Figure (23): RAEC 2017 Outturn & 2018 Subsidy Estimate



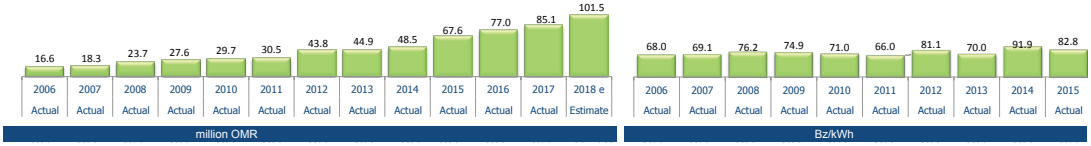
	million OMR		Baiza/kWh	
Item	**2017**	**2018**	**2017**	**2018**
Customer Revenue	**17.0**	**18.0**	18.6	17.8
Subsidy	**90.5**	**102.5**	99.0	101.7
Economic Cost	**107.5**	**120.5**	117.6	119.6
Subsidy % Economic Cost	**84%**	**85%**	84%	85%

Source: 2017 audited SCRC Statements & Authority calculations

RAEC Subsidy is estimated to increase in 2018 to OMR 102.5 million (101.7 baiza/kWh); this is approximately 13.2% higher than outturn Subsidy in 2017. The increase in 2018 RAEC Subsidy is mainly driven by the increase in RAEC's fuel purchase cost following the Government's decision to re-align fuel prices to international market prices. As diesel fuel costs account for around 50% of RAEC's total economic costs, this has a direct and significant impact on the company's overall costs.

Figure 24 presents underlying RAEC Subsidy between 2006 and 2017 and expected underlying RAEC Subsidy in 2018.

Figure (24): RAEC Underlying Movement in Subsidy: 2006 to 2017 & 2018 Forecast



	million OMR													Bz/kWh									
Nominal	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018 e	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Customer Revenue	3.5	3.8	5.4	6.5	7.3	8.7	10.6	12.5	12.4	13.7	13.9	17.0	18.0	14.3	14.5	17.3	17.7	17.6	18.9	19.6	19.5	17.6	16.8
Subsidy	16.6	18.3	23.7	27.6	29.7	30.5	43.8	44.9	48.5	67.6	77.0	85.1	101.5	68.0	69.1	76.2	74.9	71.0	66.0	81.1	70.0	91.9	82.8
Economic Cost	20.1	22.2	29.1	34.1	37.0	39.2	54.4	57.4	60.9	81.3	848.7	102.1	119.4	82.3	83.6	93.5	92.6	88.6	84.9	100.7	89.5	86.6	99.5
Total Units Supplied (GWh)	246.0	273.0	311.5	368.0	420.1	462.1	540.1	641.0	703.4	816.4	848.7	914.0	1,007.5										
Real (2018 prices)																							
Subsidy	24.3	26.0	31.9	32.5	34.6	34.4	47.3	47.2	50.4	69.4	78.9	85.7	101.5	99.3	98.3	102.4	88.3	82.8	74.4	87.5	73.6	95.5	85.1
Economic Cost	29.4	31.5	39.2	40.2	43.1	44.2	58.7	60.3	63.3	83.5	869.5	102.8	119.4	120.2	118.9	125.7	109.2	103.3	95.7	108.7	94.0	90.0	102.2

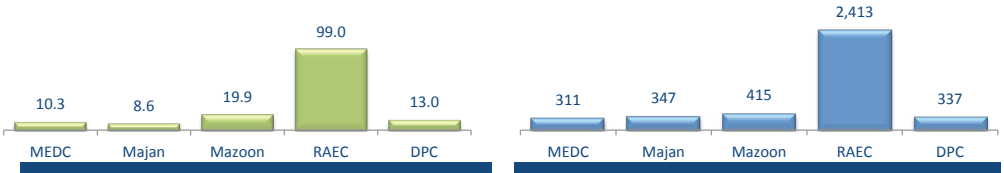
Source: 2006 to 2017 audited SCRC Statement, Authority calculations.

Please refer to Annex D for further details of the 2017 outturn RAEC Subsidy and 2018 RAEC Subsidy estimate.

Comparison of 2017 Subsidy by Company

Figure 25 presents a comparison of Subsidy provided to MEDC, Majan, Mazoon, RAEC and DPC in 2017. The left hand panel presents Subsidy (baiza) per kWh supplied, the right hand panel shows Subsidy (OMR) per Customer Account.

Figure (25): 2017 Subsidy Comparisons by Company



	MEDC	Majan	Mazoon	RAEC	DPC	MEDC	Majan	Mazoon	RAEC	DPC
Subsidy per KWh/Account	10.3	8.6	19.9	99.0	13.0	311	347	415	2,413	337
Subsidy OMR m	112.8	78.1	171.0	90.5	37.1	112.8	78.1	171.0	90.5	37.1
GWh/'000 Accounts	10,919	9,052	8,612	914	2,853	363	225	412	38	110

Source: 2017 audited SCRC Statements & Licensee returns

Mazoon accounts for 34.9% of the OMR 489.6 million of Subsidy and financial support provided to the companies in 2017, MEDC accounts for 23.0%, Majan 16%, RAEC 18.5%, and DPC 7.6%.

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.

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 perkWh	
	May to August: 24 Baiza per kWh			April to July: 24 Baiza per kWh	
Commercial	Flat rate @ 20 Baiza per KWh				
Ministry of Defence and the Sultan Special Forces	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

Figure (26) : Cost Reflective Tariffs

Cost Reflective Tariff = BSTt + 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 cost of supply

[1]not applicable to transmission connected customers

Table 8 below presents the approved 2018 CRT charges

Table (8): Approved 2018 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	11,500 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 2018 PWP electricity Bulk Supply Tariffs are shown in Table 9.

Table (9): PWP 2018 Electricity Bulk Supply Tariffs

A ***PWP Electricity Bulk Supply Tariff for MIS - 2018***

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	16.0	24.0	67.0	38.0
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 13:00 and 17:00 to 22:00
Night Peak	All days : 22:00 to 02:00 (following day)
Weekday Day-peak	Sunday to Thursday, 13:00 to 17:00
Weekend Day-peak	Friday to Saturday, 13:00 to 17:00

Source: PWP 2018 Electricity BST Leaflet for MIS

B ***PWP Electricity Bulk Supply Tariff for DPS - 2018***

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	31.0	31.0	17.0	26.0	23.0	24.0
May to June	53.0	31.0	26.0	38.0	23.0	26.0
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 04:00 and 15:00 to 17:00
On-Peak Weekend	Friday to Saturday : 00:00 to 04:00 and 15:00 to 17:00
Off-Peak Morning	All days : 04:00 to 11:00
Mid-Peak Weekday	Sunday to Thursday : 11:00 to 15:00
Mid-Peak Weekend	Friday to Saturday : 11:00 to 15:00
Off-Peak Night	All days : 17:00 to 24:00

Source: PWP 2018 Electricity BST Leaflet for DPS

PWP Electricity Bulk Supply Tariff for Musandam - 2018

C ***Baiza/kW/Hr***

	Capacity Charge	Variable Charge (Baiza/ kWh)
January to March	3.6	10.47
April	6.4	10.47
May to July	14.9	10.47
August to September	10.7	10.47
October to December	3.6	10.47

Source: PWP 2018 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 2018 PWP and RAEC water Bulk Supply Tariffs.

Table (10): PWP and RAEC 2018 Water Bulk Supply Tariffs

A *Charges for Bulk Supply to PAEW*

Fixed Charges	Rate
Fixed charge for Water Desalination Capacity	OMR 0.212 per day per m^3/day
Fixed charge for OPWP service (based on Water Desalination Capacity)	OMR 0.005 per day per m3/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	0.088	0.088
April	0.096	0.096
May to July	0.273	0.118
August to September	0.141	0.106
October	0.096	0.096
November to December	0.088	0.088

Source: PWP 2018 Water BST Leaflet

B *Charges for Bulk Supply to WDGD*

Fixed Charges	Rate
Fixed charge for Water Desalination Capacity	OMR 0.276 per day per m^3/day
Fixed charge for OPWP service (based on Water Desalination Capacity)	OMR 0.005 per day per m3/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	0.088	0.088
April	0.172	0.129
May to June	0.228	0.152
July to August	0.090	0.090
September to October	0.103	0.094
November to December	0.088	0.088

Source: PWP 2018 Water BST Leaflet

C *Charges for Bulk Supply to MISC*

	Rate
Variable charge for Distillate Water Supplied to MISC	OMR 1.0328 to 0.3228 per day per m3/day

Source: PWP 2018 Water BST Leaflet

D *RAEC Water Bulk Supply Tariff - 2018*

	Rate
RAEC Water Bulk Supply Tariff of a capacity charge	OMR 0.774 per m^3
RAEC Water Bulk Supply Tariff of avariable charge	OMR 0.478 per m^3

Source: RAEC 2018 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 2018 TUoS for both MIS and DPS are shown in Table 11 below.

Table (11): 2018 Transmission Use of System Charge

	System	
OMR/MW	MIS	DPS
2018 TUoS Charge	11,500	11,500

Source: OETC 2018 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 2018 DUoS charge for each distribution company (MEDC, Majan, Mazoon and DPC) are shown in Table 12 below

Table (12): 2018 Distribution Use of System Charges

	Company			
OMR/MWh	MEDC	Majan	Mazoon	DPC
2018 DUoS Charge	4.88	8.33	9.70	8.88

Source: Licensed Distribution companies' 2018 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:

Eng Saleh bin Hamood Al Rashdi- 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);
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 53 Directors and staff, most of whom are Omani national. Professional staff have qualifications relevant to their respective areas of regulation: 30 staff have Bachelor's Degrees and 11 have Master Degrees.

Members Meetings

Members met regularly throughout 2017 on the dates shown in Table 13

Table (13): Members Meetings in 2017

	Dr Amer Al Hinai Chairman & Member	Qais Al Zakwani Executive Director & Member	Ayisha Al Mawali Member	Mohammed Al Shahri Member	Eng Saleh Al Rashdi Member
Appointed for term in:	*May-2014*	*May-2014*	*May-2014*	*May-2014*	*April-2015*
Meeting Dates					
26-January-2017	✓	✓	✓		✓
14-March-2017	✓	✓	✓	✓	✓
18-April-2017	✓	✓	✓	✓	✓

	Eng Saleh Al Rashdi Chairman & Member	Qais Al Zakwani Executive Director & Member	Ayisha Al Mawali Member	Mohammed Al Shahri Member
Appointed for term in:	*May-2017*	*May-2017*	*May-2017*	*May-2017*
Meeting Dates				
5-June-2017	✓	✓	✓	
21-June-2017	✓	✓	✓	✓
4-July-2017	✓		✓	✓
29-August-2017	✓	✓	✓	
16-October-2017	✓		✓	✓
22-November-2017	✓	✓	✓	

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 2010 to 2018, inclusive.

Table (14): Licence Fees 2010 to 2018

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 2017 was around 3.19 Rial Omani per Customer account, less than one tenth of one baiza per kWh Supplied and less that 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 2017 the Authority consulted on its proposed 2018 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 2018 Forward Work programme is presented in Annex (E) 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 enhancing customer awareness of the legal and regulatory framework and the standard of service to which they are entitled.

In 2017 the Directorate:

i. Further to the audit check that was carried out on licensees' system and processes in 2016, the Authority commenced a follow up audit exercise in December 2017 aiming certain areas of concern included meter reading, late payment code of practice, complaint handling and new connections. This was in addition to the regular follow up meetings to discuss progress with the agreed action plans as per the preceding audit report. The follow up audit will be finalized in 2018.

ii. The Directorate continued monitoring the distribution and supply licensees' performance against a number of Key Performance indicators (KPIs) in accordance with the 2015-2017 price control. Reports are received by the Authority on a quarterly basis.

iii. In 2017, the Authority approved a new customer service incentive and penalty scheme to be applied in January 2018 as part of the 2018-2021 distribution and supply price control. This included a new set of customer service KPIs along with a new reporting framework. A guidance note was developed by the Authority to assist licensees with the reporting of their performance against each KPI.

iv. The Directorate contributed to the Metering Audit that was led by the Technical Directorate.

v. Published three videos to enhance customers' awareness on the following codes of practice:
   a. Customer Complaint Handling Procedure;
   b. Late payment Code of Practice; and
   c. Special Needs Code of Practice

vi. Continued to build relations with external stakeholders, focusing on smaller scale community groups who are less well informed about electricity customers' rights;

vii. Issued 2 Determinations related to customer dispute distribution and supply licensee. Received 75 new customer complaints and resolved 35 outstanding customer complaints.

viii. Advised a further 250 customers on their rights and how to progress their complaint using the approved complaint handling procedure;

ix. Contributed to a number of radios program on issues related to electricity customers in Oman.

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.

In 2017, the Authority focused on Mahout and Duqum in Al Wusta and Dhank in Al Dhahira Governorate. The Authority managed to meet its goals using the same approach of the previous events. Furthermore, a visit was carried out to Women Association in Quriat. The meeting generated lively debate and provided the Authority with strong insights into the views and experiences of customers, as well as ensuring that stakeholders better understand the role of the distribution and supply company and its meter reading, billing and collection contractors. Moreover, the Directorate continued monitoring the communication programs in the distribution and Supply companies to ensure the accuracy and quality of messages delivered to customers.

In addition to awareness raising seminars and events, the Authority produced customer friendly videos covering 3 codes of practice Customer Complaint Handling Procedure, Late Payment and Special Needs Customers.

Licences, Codes, Procedures and Charters

Customers have increasingly grown more demanding in terms of the level of service performance they expect from utility companies. In the Authority's view, customer service has often not been satisfactory, due to issues surrounding the interaction between customers and companies. Following this trend, the Authority investigated whether new incentives to improve customer satisfaction might be introduced as the current Key Performance Indicators (KPIs) are reputational, rather than financial in its effect.

With the introduction of new IT systems by the distribution and supply companies, and a record of reporting the data to the Authority during the current price control period, the Authority became more confident that the quality of data has improved. This has provided a greater scope to link the KPIs to financial rewards/ penalty in the forthcoming price controls. Consequently, in October 2017, the Authority approved a new service incentive mechanism that linked to financial rewards/penalty to be applied in January 2018 as part of the 2018-2021 distribution and supply price control to drive performance in poorer performing companies, while continuing to encourage companies that were performing efficiently to maintain their position.

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 73 Determinations in the period 2005 – 2016, covering all main categories of complaint. This body of precedent was sufficient to enable the Authority's staff to resolve a further 35 unresolved complaints during 2016, compared with 75 complaints received during the year. The Authority issued 2 Determinations this year summarized 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
1/2017	MEDC	Customer	The Customer dispute concerns a demand by the Company that the Customer pay a total of OMR 1,089,019.835 in respect of unbilled electricity consumption during the period July 2010 to September 2015 (64 months). The Company has failed in its obligation to read the Customer's meter and provide him with an accurate bill over a long period of time. The Authority determined that the period of which the Company may recover under-recovered revenue on the disputed account shall be limited to no more than 12 months.

			The Customer dispute concerns a demand by the Company that the Customer pay a total of OMR 22,516.316 in respect of unbilled electricity consumption during the period May 2011 to January 2016.
2/2017	MEDC	Customer	The Authority considers it unreasonable for the Company to hold the Customer liable for mistakes or errors of the Company or its contractors, for unlimited periods. The Authority determined that he period for which the Company may recover under-recovered revenue on the disputed account shall be limited to no more than 12 months.

The Authority will continue to make further Determinations when it is necessary to set a further precedent and when a Customer does not accept the resolution of his dispute on the basis of precedent and wishes to pursue the matter in Court.

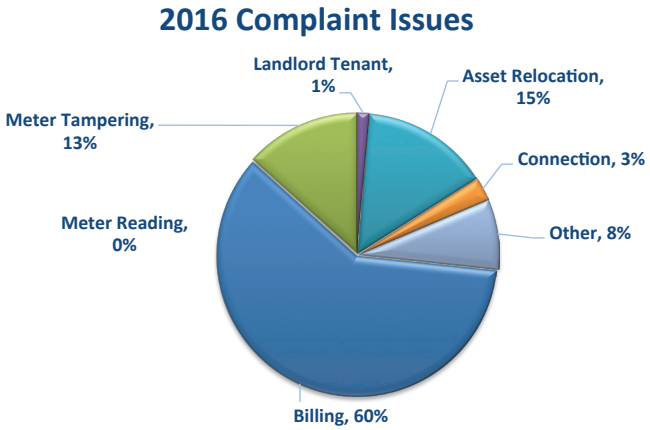
The figure of 75 complaints received during 2017 was similar to the figure of complaints received during 2016. Figure 27 below presents an analysis of the issues that were the cause of those 75 complaints.

The number of billing related complaints recorded in 2017 increased from 44 to 45, which is 60% 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 contract and hand held devices. The number of complaints relating to customer connection was lower than in 2017 at 2 compared with 7.

Figure (27): Categories of Customer Complaint in 2017

Copmplaint Issue	2016		2017	
	#	%	#	%
Billing	44	59%	45	60%
Meter Reading	0	0%	0	0%
Meter Tampering	1	1%	10	13%
Landlord Tenant	1	1%	1	1%
Asset Relocation	20	27%	11	15%
Connection	7	9%	2	3%
Other	2	3%	6	8%
Totals	**75**		**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 2017 the Directorate provided advice to 249 customers, compared with 182 in 2016 and 159 in 2015. Of those 249 cases, 172 related to billing, compared with 125 in 2016, an increase of 38%. Customer connections represented 20 cases, compared with 17 in 2016.

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 2017 the Directorate:

- Completed a price control review of MIS Discos (MEDC, Majan and Mazoon), and DPC. The new 4-year Distribution and Supply price controls came into effect on 1 January 2018;
- Completed a price control review of RAEC. The new 4-year Rural Areas Electricity Company price controls came into effect on 1 January 2018.
- Undertook analysis to confirm outturn (2016) and estimated (2017 and 2018) electricity sector subsidy requirements;
- Undertook a review of the 2018 PWP and RAEC electricity and water Bulk Supply Tariff proposals;
- Reviewed the draft PWP 7-Year Statement submission;
- Oversaw and supported work undertaken by PWP on the development of the electricity spot market, including a review and approval of the draft market rules;
- Initiated work on the development of a high-level blueprint for the introduction of electricity retail competition in Oman; and
- Commenced preparatory work for the Transmission and Dispatch (OETC) and Power and Water Procurement (PWP) price control review.

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.

During 2017 the Directorate:

(i) Conducted a review of the preparation of the Distribution Licensees for summer 2017;
(ii) Performed the technical analysis to support the price controls of DPC, MEDC, MJEC, MZEC, and RAEC;
(iii) Initiated a technical audit to support the review of how OETC spent its price control allowances;
(iv) Conducted the metering audit of the Distribution Licensees and RAEC;
(v) 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 2018;
(vi) Reviewed the 2017 system capability statements of MEDC, MJEC, MZEC, DPC, RAEC and OETC;
(vii) Reviewed the derogation requests and the contingency plans submitted by the Licensees;
(viii) Reviewed the technical requirements for License and License exemption applications;
(ix) Followed up on the progress of implementation of the Rusail Blackout Investigation report;
(x) Followed up implementation of the recommendations from Health and Safety audits of MEDC and RAEC of 2015 and MZEC and MJEC in 2016;
(xi) Continued routine inspections of licensed distribution systems to ensure the safety and physical security of the networks;
(xii) 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;
(xiii) Followed up on the implementation of the Cyber Security standards compliance program by the Licensees;
(xiv) Witnessed blackout restoration drills for both the MIS and Dhofar systems;
(xv) Participated in the discussions with PWP on the development of the Spot Market, and;
(xvi) Reviewed the contingency plans of the different Distribution Licensees against the requirements to comply with the Distribution System Security Standards.

Price Control of Distribution Licensees, DPC, and RAEC

The Directorate concluded its technical review of price control and set new price control allowances for the Licensees.

Price Control technical mini audit of OETC

The Directorate initiated its technical review of price control which is a mini audit of the technical performance of how OETC 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 OETC 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 2018 to inform the discussion to set new price control allowances.

Grid Code Review Panel

The Grid Code Review Panel (GCRP) met four times during 2017, see Table 16.

Table (16): Grid Code Review Panel meetings in 2017

Meeting	Meeting date	Chaired by	Location
GCRP 48	06-Feb-17	OETC	Muscat
GCRP 49	01-May-17	OETC	Barka
GCRP 50	07-Aug-17	OETC	Muscat
GCRP 51	06-Nov-17	OETC	Muscat

Distribution Code Review Panel

The Distribution Code Review Panel (DCRP) met four times during 2017, see Table 17.

Table (17): Distribution Code Review Panel meetings in 2017

Meeting	Meeting date	Chaired by	Location
1/2017	13-Feb-17	DPC	Muscat
2/2017	08-May-17	DPC	Muscat
3/2017	11-Sept-17	DPC	Muscat
4/2017	08-Nov-17	DPC	Muscat

During 2017 the DCRP continued its efforts to improve the product and contractor approval processes. The DCRP continued to improve its internal processes and procedures to be more efficient in product and contractor approvals, and to expedite processes for SME companies, companies that meet their Omanisation requirements, and suppliers of Omani products. DCPR also took proactive steps to enhance the capability of the market to provide competent PV installers and to improve the safety of those working in the electricity sector.

In 2017 the DCRP issued 57 new product approvals. Also, the DCRP reviewed and approved 102 new contractors and 0 consultants in 2017. Also, the DCRP continued to assess and approve protection engineers as 25 approved protection engineers and 43 testing engineers were authorised in 2017. In addition, the DRP issued 245 electricians licenses in 2017

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 steams: 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 handled 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 2017, the Directorate:

1. Concluded the process of granting Musandam Power Company SAOC a Generation Licence to authorize the Licensee to Generate electricity from its Production Facilities effective from 5 January 2017, for a period of 25 years. The Production Facilities are located in Wilayt Bukah at the Governorate of Musandam, with a Production Capacity of (120.747 MW).

2. Reviewed a Licence application from Qurayyat Desalination SAOC (QD). The Authority granted QD 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 26 April 2017, for a period of 25 years. The Desalination Facility of a Special Nature is located in Muscat Governorate- Qurayyat with a Production Capacity of (220.000 m3/day).

3. Modified Part 1, Clause (4) - Licence Activities of Dhofar Generating Company SAOC (DGC) Licence by increasing the maximum Production Capacity of electricity to 718.31 MW. This modification took effect on 26 January 2017.

4. Reviewed a Licence application from Barka Desalination Company (BDC). A Desalination Licence to authorize BDC to undertake the regulated activity of Desalination of water from a Desalination Facility of a Special Nature was to be granted in early 2018.

5. Received a Licence application from Ad Dahirah Generating Company on 7 December 2017.

6. Contributed to the process of issuing a breach of Licence Notice to Muscat Electricity Distribution Company SAOC (MEDC) under Article (116) of the Sector Law. The notice was issued due to MEDC's failure to comply with various Conditions of its Licence. The Notice was issued following an Investigation under Article (147) of the Sector Law.

7. Reviewed and approved an application for Approval of Change of Control for Phoenix Power Company SAOG and Sharqiyah Desalination Company SAOG. The names of Licensees are remained the same following the change of Control.

8. Reviewed and granted consent of Article (106) to ACWA Power Barka SAOG and Qurayyat Desalination SAOC.

9. Represented the Authority in all court cases involving the Authority in litigation levels; Preliminary, Appeals and Supreme Courts).

10. Assisted Government entities in international litigation proceedings involving the Government of the Sultanate in relation to competition cases.

11. Reviewed and approved applications for disposal of assets and transfer of shares submitted by Licensees.

12. Participated in international conferences and meetings (including GCC Interconnection Authority Advisory and Regulatory Committee meetings).

Annex A: Audited Financial Statements

Authority for Electricity Regulation, Oman

Report and Financial Statements for the year ended 31st December 2017

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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 2017 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 21.

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 2017 and of its financial performance and its cash flows for the year then ended in accordance with International Financial Reporting Standards (IFRSs).

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 Authority 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 Authority'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 IFRSs 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 are responsible for overseeing the Authority's financial reporting process.

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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 Authority'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 Authority 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.

Deloitte.

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

Deloitte & Touche (M.E.) & Co. LLC
Muscat, Sultanate of Oman
4 July 2018

ديلويت آند توش (الشرق الأوسط) وشركاه ش.م.م
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Deloitte.
0901-02
Deloitte & Touche (M.E.)& Co. LLC.

AUTHORITY FOR ELECTRICITY REGULATION, OMAN

Statement of financial position at 31 December 2017

	Notes	2017 RO	2016 RO
ASSETS			
Non-current asset			
Property and equipment	5	**99,262**	103,060
Current assets			
Receivables and prepayments	6	**202,505**	38,080
Cash and cash equivalent	7	**1,877,070**	1,534,040
Total current assets		**2,079,575**	1,572,120
Total assets		**2,178,837**	1,675,180
Retained surplus fund and liabilities			
Retained surplus fund	8	**1,820,859**	1,293,932
Liabilities			
Non-current liability			
Provision for employees' end of service benefits	9	**109,947**	133,260
Current liability			
Accruals and other payables	10	**248,032**	247,988
Total liabilities		**357,979**	381,248
Total retained surplus fund and liabilities		**2,178,837**	1,675,180

Chairman **Member** **Executive Director**

AUTHORITY FOR ELECTRICITY REGULATION, OMAN

Statement of revenue and expenses for the year ended 31 December 2017

	Notes	2017 RO	2016 RO
Licence fees	11	**3,739,592**	2,761,118
Interest income		**47,000**	7,736
Other income		**8,912**	79,900
Total revenue		**3,795,504**	2,848,754
Salaries and employee related costs	12	**(2,178,840)**	(1,910,936)
General and administrative expenses	13	**(461,193)**	(466,324)
Consultancy expense		**(580,340)**	(484,797)
Depreciation	5	**(48,204)**	(71,611)
Total expenses		**(3,268,577)**	(2,933,668)
Surplus / (deficit) for the year		**526,927**	(84,914)

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 2017

	Retained surplus RO
Balance at 1 January 2016	1,378,846
Deficit for the year	(84,914)
Balance at 1 January 2017	**1,293,932**
Surplus for the year	**526,927**
Balance at 31 December 2017	**1,820,859**

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 2017

	2017 RO	2016 RO
Operating activities		
Cash receipts from licensees and application fees for license exemptions and other income	**3,728,355**	2,830,554
Cash paid to employees and other suppliers	**(3,349,831)**	(2,670,536)
Net cash from operating activities	**378,524**	160,018
Investing activities		
Purchase of property and equipment	**(44,406)**	(37,703)
Financing activities		
Interest income received	**8,912**	7,736
Net change in cash and cash equivalents	**343,030**	130,051
Cash and cash equivalents at the beginning of the year	**1,534,040**	1,403,989
Cash and cash equivalents at the end of the year (Note 7)	**1,877,070**	1,534,040

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 2017

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 2017, have been adopted in these financial statements.

- Amendments to IAS 12 *Income Taxes* relating to the recognition of deferred tax assets for unrealised losses
- Amendments to IAS 7 *Statement of Cash Flows* to provide disclosures that enable users of financial statements to evaluate changes in liabilities arising from financing activities
- Annual Improvements to IFRS Standards 2014–2016 Cycle – Amendments to IFRS 12

AUTHORITY FOR ELECTRICITY REGULATION, OMAN

Notes to the financial statements for the year ended 31 December 2017 (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

The Authority 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 and IAS 28.	1 January 2018
Annual Improvements to IFRS Standards 2015–2017 Cycle amending IFRS 3, IFRS 11, IAS 12 and IAS 23.	1 January 2019
IFRIC 22 *Foreign Currency Transactions and Advance Consideration* The interpretation addresses foreign currency transactions or parts of transactions where: • 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
IFRIC 23 *Uncertainty over Income Tax Treatments* The interpretation addresses the determination of taxable profit (tax loss), tax bases, unused tax losses, unused tax credits and tax rates, when there is uncertainty over income tax treatments under IAS 12. It specifically considers: • Whether tax treatments should be considered collectively; • Assumptions for taxation authorities' examinations; • The determination of taxable profit (tax loss), tax bases, unused tax losses, unused tax credits and tax rates; and • The effect of changes in facts and circumstances.	1 January 2019
Amendments to IFRS 2 *Share Based Payment* regarding classification and measurement of share based payment transactions.	1 January 2018
Amendments to IFRS 4 *Insurance Contracts*: Relating to the different effective dates of IFRS 9 and the forthcoming new insurance contracts standard.	1 January 2018
Amendments to IAS 40 *Investment Property*: 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

AUTHORITY FOR ELECTRICITY REGULATION, OMAN

Notes to the financial statements for the year ended 31 December 2017 (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) (a)	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 and modification of financial liabilities recorded at amortised cost.
- **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.

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Notes to the financial statements for the year ended 31 December 2017 (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 (continued)	Effective for annual periods beginning on or after
IFRS 15 *Revenue from Contracts with Customers*	1 January 2018

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.	1 January 2018
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.	1 January 2019
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 date deferred indefinitely

AUTHORITY FOR ELECTRICITY REGULATION, OMAN

Notes to the financial statements for the year ended 31 December 2017 (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 Authority'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 Authority in the period of initial application.

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

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.

AUTHORITY FOR ELECTRICITY REGULATION, OMAN

Notes to the financial statements for the year ended 31 December 2017 (continued)

3. Summary of significant accounting policies

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.

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

AUTHORITY FOR ELECTRICITY REGULATION, OMAN

Notes to the financial statements for the year ended 31 December 2017 (continued)

3. Summary of significant accounting policies (continued)

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.

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.

AUTHORITY FOR ELECTRICITY REGULATION, OMAN

Notes to the financial statements for the year ended 31 December 2017 (continued)

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 accounts 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.

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.

AUTHORITY FOR ELECTRICITY REGULATION, OMAN

Notes to the financial statements for the year ended 31 December 2017 (continued)

4. Financial risk management (continued)

Financial risk factors (continued)

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 2017 (continued)

5. Property and equipment

	Furniture, fixtures and office equipment RO	Vehicles RO	Computers RO	Total RO
Cost				
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 1 January 2017	**288,258**	**173,500**	**152,087**	**613,845**
Additions	**27,431**	**-**	**16,975**	**44,406**
Disposals	**-**	**-**	-	**-**
At 31 December 2017	**315,689**	**173,500**	**169,062**	**658,251**
Depreciation				
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 1 January 2017	**260,229**	**110,365**	**140,191**	**510,785**
Charge for the year	**13,897**	**25,213**	**9,094**	**48,204**
Disposals				
At 31 December 2017	**274,126**	**135,578**	**149,285**	**558,989**
Carrying value				
At 31 December 2017	**41,563**	**37,922**	**19,777**	**99,262**
At 31 December 2016	28,029	63,135	11,896	103,060

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. Receivables and prepayments

	2017 RO	2016 RO
License fee receivable	**70,552**	12,315
Prepayments	**85,771**	12,425
Advances and others	**46,182**	13,340
	202,505	38,080

AUTHORITY FOR ELECTRICITY REGULATION, OMAN

Notes to the financial statements for the year ended 31 December 2017 (continued)

7. Cash and cash equivalents

	2017 RO	2016 RO
Cash on hand	**1,522**	686
Cash at bank	**1,875,548**	1,533,354
	1,877,070	1,534,040

8. 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.

9. Provision for employees' end of service benefits

	2017 RO	2016 RO
At 1 January	**133,260**	120,624
Paid during the year	**(50,311)**	-
Charge for the year (Note 12)	**26,998**	12,636
At 31 December	**109,947**	133,260

10. Accruals and other payables

Accruals	**246,592**	247,276
Other payables	**1,440**	712
	248,032	247,988

11. Licence fees

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

AUTHORITY FOR ELECTRICITY REGULATION, OMAN

Notes to the financial statements for the year ended 31 December 2017 (continued)

12. Salaries and employee related costs

	2017 RO	2016 RO
Salaries and allowances	**1,854,109**	1,642,380
Cost of end of service benefits for expatriate employees (Note 8)	**26,998**	12,636
Contribution to defined contribution retirement plan	**152,954**	135,058
Other employee related costs	**144,779**	120,862
	2,178,840	1,910,936

13. General and administrative expenses

Rent	**179,400**	172,800
Insurance	**74,511**	68,826
Communications	**14,826**	13,405
Advertisement and publicity	**23,147**	77,499
Travelling and conveyance	**66,986**	50,277
Printing and stationery	**18,456**	11,985
Utilities	**11,969**	8,217
Repairs and maintenance	**8,186**	8,184
Miscellaneous expenses	**63,712**	55,131
	461,193	466,324

14. Taxation

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

15. 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.

The Government is not considered as a related party in view of the exemption from disclosure requirements set out in IFRS in relation to related party transactions and outstanding balances with a government that has control or joint control of, or significant influence over the Authority and an entity that is a related party of the same government. The Authority has applied the exemptions in IAS 24:25 related to government entities and only disclosed certain information to meet the disclosure requirements of IAS 24."

AUTHORITY FOR ELECTRICITY REGULATION, OMAN

Notes to the financial statements for the year ended 31 December 2017 (continued)

15. Related party transactions (continued)

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

	2017 RO	2016 RO
Short term employment benefits	**196,483**	171,160
Pension fund contribution	**6,372**	2,520

16. 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:

	2017 RO	2016 RO
Other receivables	**157,527**	25,655
Bank balances	**1,875,548**	1,533,354
	2,033,075	1,559,009

Licence fees receivable of RO 51,760 (2016: 12,065) at the reporting date were past due for 60 days (2016: 60 days).

17. Liquidity risk

The following are the maturities of the financial liabilities.

	Carrying amount		6 months or less	
	2017 RO	2016 RO	2017 RO	2016 RO
Accruals	**246,592**	247,276	**246,592**	247,276
Other payables	**1,439**	712	**1,439**	712
	248,031	247,988	**248,031**	247,988

AUTHORITY FOR ELECTRICITY REGULATION, OMAN

Notes to the financial statements for the year ended 31 December 2017 (continued)

18. Interest rate risk

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

	2017 RO	2016 RO
Fixed rate instruments		
Financial assets	**1,875,548**	1,533,354

19. Commitments

Operating lease commitments	**346,328**	134,618

20. Approval of financial statements

These financial statements were approved and authorized for issue by the Members on 25 June 2018.

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 of 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

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.

Musandam Power Company SAOC
Regulated Activity: Generation of Electricity

Qurayyat Desalination SAOC
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
Regualted Activities : the Generation of elecricity and Desalination of water ; Distribution and supply of electricity to Premises.

Oman LNG LLC
Regualted Activities : the Generation of electricity and Desalination of water ; Distribution and Supply of electrcity.

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 electrcity 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 : 2016 and 2017

2016 Accounts	Main Interconnected System (MIS)								Rural Systems		Dhofar System		Total Oman	
	Muscat	% Total	Majan	% Total	Mazoon	% Total	Total MIS	% Total	RAEC	% Total	DPC	% Total		% 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%	800,905	74.5%
Industrial	195	0.1%	562	0.3%	136	0.0%	893	0.1%	61	0.2%	65	0.1%	1,019	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%	221,837	20.6%
Agriculture & Fisheries	189	0.1%	3,845	1.8%	3,806	1.0%	7,840	0.8%	443	1.2%	102	0.1%	8,385	0.8%
Hotels / Tourism	61	0.0%	376	0.2%	90	0.0%	527	0.1%	66	0.2%	84	0.1%	677	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%	41,334	3.8%
Ministry of Defence	81	0.0%	70	0.0%	47	0.0%	198	0.0%	132	0.4%	110	0.1%	440	0.0%
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%	**1,074,597**	100.0%
% of Oman	31.3%		19.6%		36.4%		87.3%		3.3%		9.4%		100.0%	

2017 Accounts	Main Interconnected System (MIS)								Rural Systems		Dhofar System		Total Oman	
	Muscat	% Total	Majan	% Total	Mazoon	% Total	Total MIS	% Total	RAEC	% Total	DPC	% Total		% Total
Residential	274,255	75.6%	160,745	71.4%	306,912	74.5%	741,912	74.2%	25,910	69.1%	84,562	76.8%	852,384	74.3%
Industrial	6	0.0%	357	0.2%	41	0.0%	404	0.0%	35	0.1%	45	0.0%	484	0.0%
Commercial	76,215	21.0%	50,143	22.3%	84,038	20.4%	210,396	21.0%	7,181	19.1%	19,049	17.3%	236,626	20.6%
Agriculture & Fisheries	189	0.1%	4,026	1.8%	3,885	0.9%	8,100	0.8%	509	1.4%	105	0.1%	8,714	0.8%
Hotels / Tourism	284	0.1%	396	0.2%	103	0.0%	783	0.1%	67	0.2%	98	0.1%	948	0.1%
Government	7,403	2.0%	7,912	3.5%	13,873	3.4%	29,188	2.9%	3,329	8.9%	5,024	4.6%	37,541	3.3%
Ministry of Defence	80	0.0%	72	0.0%	57	0.0%	209	0.0%	115	0.3%	110	0.1%	434	0.0%
CRT/Commercial	3,561	1.0%	774	0.3%	1,572	0.4%	5,907	0.6%	110	0.3%	516	0.5%	6,533	0.6%
CRT/Government	726	0.2%	532	0.2%	1,168	0.3%	2,426	0.2%	229	0.6%	495	0.4%	3,150	0.3%
CRT/Industrial	172	0.0%	238	0.1%	90	0.0%	500	0.1%	28	0.1%	59	0.1%	587	0.1%
2017 Totals	**362,891**	100.0%	**225,195**	100.0%	**411,739**	100.0%	**999,825**	100.0%	**37,513**	100.0%	**110,063**	100.0%	**1,147,401**	100.0%
% of Oman	31.6%		19.6%		35.9%		87.1%		3.3%		9.6%		100.0%	
Net Change in Accounts	**26,368**		**14,294**		**21,050**		**61,712**		**2,055**		**9,037**		**72,804**	
Annual % Change	7.8%		6.8%		5.4%		6.6%		5.8%		8.9%		6.8%	

Table 2

Electricity Customer Accounts by System, Company and tariff Category : 2016 and 2017

2016 MWh	Main Interconnected System (MIS)								Rural Systems		Dhofar System		Total Oman	
	Muscat	% Total	Majan	% Total	Mazoon	% Total	Total MIS	% Total	RAEC	% Total	DPC	% Total		% 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%	**13,994,800**	46.1%
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%	**5,152,729**	17.0%
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%	**6,513,194**	21.5%
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%	**393,210**	1.3%
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%	**62,443**	0.2%
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%	**3,862,367**	12.7%
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%	**379,969**	1.3%
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%	**30,358,712**	100.0%
% of Total Oman	34.2%		28.1%		26.1%		**88.4%**		**2.8%**		**8.8%**		**100.0%**	

2017 MWh	Main Interconnected System (MIS)								Rural Systems		Dhofar System		Total Oman	
	Muscat	% Total	Majan	% Total	Mazoon	% Total	Total MIS	% Total	RAEC	% Total	DPC	% Total		% Total
Residential	5,032,326	46.1%	3,063,802	33.8%	5,172,200	60.1%	**13,268,328**	46.4%	451,348	49.4%	1,172,414	41.1%	**14,892,090**	46.0%
Industrial	-8,772	-0.1%	11,548	0.1%	2,843	0.0%	**5,619**	0.0%	722	0.1%	-1,232	0.0%	**5,109**	0.0%
Commercial	1,159,226	10.6%	547,388	6.0%	899,150	10.4%	**2,605,764**	9.1%	83,228	9.1%	230,102	8.1%	**2,919,094**	9.0%
Agriculture & Fisheries	7,500	0.1%	159,799	1.8%	203,749	2.4%	**371,048**	1.3%	44,646	4.9%	9,228	0.3%	**424,922**	1.3%
Hotels / Tourism	125,318	1.1%	24,872	0.3%	23,201	0.3%	**173,392**	0.6%	30,508	3.3%	13,784	0.5%	**217,684**	0.7%
Government	398,768	3.7%	296,042	3.3%	446,182	5.2%	**1,140,993**	4.0%	91,426	10.0%	175,697	6.2%	**1,408,116**	4.4%
Ministry of Defence	80,485	0.7%	17,849	0.2%	212,885	2.5%	**311,219**	1.1%	35,618	3.9%	102,464	3.6%	**449,302**	1.4%
CRT/Commercial	2,596,891	23.8%	726,918	8.0%	897,839	10.4%	**4,221,648**	14.8%	60,892	6.7%	329,320	11.5%	**4,611,859**	14.3%
CRT/Government	1,117,776	10.2%	263,644	2.9%	620,870	7.2%	**2,002,290**	7.0%	77,788	8.5%	325,736	11.4%	**2,405,813**	7.4%
CRT/Industrial	408,999	3.7%	3,940,165	43.5%	132,719	1.5%	**4,481,884**	15.7%	37,794	4.1%	495,819	17.4%	**5,015,496**	15.5%
2017 Totals	**10,918,517**	100.0%	**9,052,027**	100.0%	**8,611,639**	100.0%	**28,582,183**	100.0%	**913,969**	100.0%	**2,853,332**	100.0%	**32,349,484**	100.0%
% of Total Oman	33.8%		28.0%		26.6%		**88.4%**		**2.8%**		**8.8%**		**100.0%**	
Change in MWh	**537,508**		**510,262**		**691,802**		**1,739,572**		**65,303**		**185,898**		**1,990,773**	
Annual % Change	**5.2%**		**6.0%**		**8.7%**		**6.5%**		**7.7%**		**7.0%**		**6.6%**	

Table 3

Customer Accounts, MWh Supplied and MWh per Account by System, Company and tariff Category : 2016 and 2017

2017		Main Interconnected System (MIS)				Rural Systems	Dhofar System	
Tariff Category	Item	Muscat	Majan	Mazoon	Total MIS	RAEC	DPC	Total Oman
Residential	Accounts	274,255.0	160,745.0	306,912.0	741,912.0	25,910.0	84,562.0	852,384.0
Residential	MWh Supplied	5,032,325.7	3,063,802.0	5,172,200.0	13,268,327.6	451,347.8	1,172,414.3	14,892,089.7
Residential	MWh Supplied per Account	18.3	19.1	16.9	17.9	17.4	13.9	17.5
Industrial	Accounts	6.0	357.0	41.0	404.0	35.0	45.0	484.0
Industrial	MWh Supplied	-8,771.6	11,547.6	2,843.4	5,619.3	721.7	-1,232.0	5,109.0
Industrial	MWh Supplied per Account	-1,461.9	32.3	69.4	13.9	20.6	-27.4	10.6
Commercial	Accounts	76,215.0	50,143.0	84,038.0	210,396.0	7,181.0	19,049.0	236,626.0
Commercial	MWh Supplied	1,159,225.8	547,388.0	899,150.4	2,605,764.2	83,227.8	230,102.1	2,919,094.0
Commercial	MWh Supplied per Account	15.2	10.9	10.7	12.4	11.6	12.1	12.3
Agriculture & Fisheries	Accounts	189.0	4,026.0	3,885.0	8,100.0	509.0	105.0	8,714.0
Agriculture & Fisheries	MWh Supplied	7,500.1	159,798.8	203,748.7	371,047.6	44,646.0	9,228.3	424,921.8
Agriculture & Fisheries	MWh Supplied per Account	39.7	39.7	52.4	45.8	87.7	87.9	48.8
Hotels / Tourism	Accounts	284.0	396.0	103.0	783.0	67.0	98.0	948.0
Hotels / Tourism	MWh Supplied	125,318.4	24,872.2	23,201.4	173,392.1	30,508.1	13,783.8	217,684.0
Hotels / Tourism	MWh Supplied per Account	441.3	62.8	225.3	221.4	455.3	140.7	229.6
Government	Accounts	7,403.0	7,912.0	13,873.0	29,188.0	3,329.0	5,024.0	37,541.0
Government	MWh Supplied	398,767.8	296,042.3	446,182.4	1,140,992.5	91,426.0	175,697.2	1,408,115.8
Government	MWh Supplied per Account	53.9	37.4	32.2	39.1	27.5	35.0	37.5
Ministry of Defence	Accounts	80.0	72.0	57.0	209.0	115.0	110.0	434.0
Ministry of Defence	MWh Supplied	80,485.0	17,849.3	212,885.0	311,219.2	35,618.1	102,464.1	449,301.5
Ministry of Defence	MWh Supplied per Account	1,006.1	247.9	3,734.8	1,489.1	309.7	931.5	1,035.3
CRT/Commercial	Accounts	3,561.0	774.0	1,572.0	5,907.0	110.0	516.0	6,533.0
CRT/Commercial	MWh Supplied	2,596,890.6	726,918.4	897,838.6	4,221,647.6	60,891.8	329,319.8	4,611,859.2
CRT/Commercial	MWh Supplied per Account	729.3	939.2	571.1	714.7	553.6	638.2	705.9
CRT/Government	Accounts	726.0	532.0	1,168.0	2,426.0	229.0	495.0	3,150.0
CRT/Government	MWh Supplied	1,117,776.1	263,643.6	620,870.0	2,002,289.7	77,787.6	325,735.7	2,405,812.9
CRT/Government	MWh Supplied per Account	1,539.6	495.6	531.6	825.3	339.7	658.1	763.8
CRT/Industrial	Accounts	172.0	238.0	90.0	500.0	28.0	59.0	587.0
CRT/Industrial	MWh Supplied	408,999.3	3,940,165.3	132,718.9	4,481,883.6	37,794.1	495,818.6	5,015,496.4
CRT/Industrial	MWh Supplied per Account	2,377.9	16,555.3	1,474.7	8,963.8	1,349.8	8,403.7	8,544.3

Table 3

Customer Accounts, MWh Supplied and MWh per Account by System, Company and tariff Category : 2016 and 2017

Total Customer Accounts in 2017	362,891	225,195	411,739	999,825	37,513	110,063	1,147,401
Total MWh Supplied in 2017	10,918,517	9,052,027	8,611,639	28,582,183	913,969	2,853,332	32,349,484
MWh Supplied per Account in 2017	**30.1**	**40.2**	**20.9**	**28.6**	**24.4**	**25.9**	**28.2**
% change MWh per Account from 2016	-2.5%	-0.8%	3.2%	-0.1%	1.8%	-1.8%	-0.2%

Table 4

Electricity Supply & Registered Accounts by Region & Company : 2016 and 2017

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**

2017

Region	Company	MWh Supplied	% Oman	Accounts	% Oman	MWh Supply per Account
Al Dahirah	Majan	1,050,960	3.2%	53,198	4.6%	19.8
Al Sharquia North	Mazoon	1,140,711	3.5%	74,910	6.5%	15.2
Al Sharquia South	Mazoon	1,357,943	4.2%	71,180	6.2%	19.1
Al Wusta	RAEC	348,860	1.1%	15,682	1.4%	22.2
Burami	Majan	764,662	2.4%	37,276	3.2%	20.5
Dakhliyah	Mazoon	2,447,288	7.6%	118,254	10.3%	20.7
Dhofar	DPC	2,853,332	8.8%	110,063	9.6%	25.9
Dhofar	RAEC	244,562	0.8%	7,145	0.6%	34.2
Musandam	RAEC	320,548	1.0%	14,686	1.3%	21.8
Muscat	Muscat	10,918,517	33.8%	362,891	31.6%	30.1
North Batinah	Majan	7,236,405	22.4%	134,721	11.7%	53.7
South Batinah	Mazoon	3,665,697	11.3%	147,395	12.8%	24.9
Sultanate Totals 2017		**32,349,484**		**1,147,401**		**28.2**
Change from 2016 (%)		*6.6%*		*6.8%*		*-0.2%*

Table 5

Electricity Production by System : 2014 to 2017

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%*	29,555,694	*87.9%*
Rural Systems	940,008	*2.7%*	994,557	*3.0%*
Dhofar Power System	3,248,297	*9.5%*	3,057,168	*9.1%*
Total for 2016	**34,227,662**		**33,607,419**	

2017	Electricity Production			
System	**Gross MWh**	*% Year*	**Net MWh**	*% Year*
Main Interconnected System	31,783,535	*88.0%*	31,356,939	*87.9%*
Rural Systems	1,038,319	*2.9%*	1,091,702	*3.1%*
Dhofar Power System	3,304,103	*9.1%*	3,223,947	*9.0%*
Total for 2017	**36,125,957**		**35,672,587**	

Table 6

Electricity Production by System and Company : 2016 & 2017

	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	*12.0%*	4,022,981	*12.0%*
Phoenix Power Company SAOC	6,424,173	*18.8%*	6,424,019	*19.1%*
PWP other purchases			664,016	*2.0%*
SMN Barka SAOG	2,057,455	*6.0%*	1,855,662	*5.5%*
Sohar Power Company SAOG	3,929,811	*11.5%*	3,696,645	*11.0%*
UPC Manah SAOG	1,149,906	*3.4%*	1,142,004	*3.4%*
Wadi Jizzi SAOC	615,323	*1.8%*	611,699	*1.8%*
MIS sub-total	**30,039,357**	***87.8%***	**29,555,694**	***87.9%***
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%***
C: Dhofar Power System				
DGC SAOC	735,686	*2.1%*	724,181	*2.2%*
PWP other purchases	0	*0.0%*	1,010	*0.0%*
SembcorpSalalah SAOC	2,512,611	*7.3%*	2,331,977	*6.9%*
Dhofar System sub-total	**3,248,297**	***9.5%***	**3,057,168**	***9.1%***
Totals for 2016	**34,227,662**	***100%***	**33,607,419**	***100%***

	Electricity Production			
2017	**Gross MWh**	***% Oman***	**Net MWh**	***% Oman***
A: Main Interconnected System				
ACWA Power Barka SAOG	3,282,503	*9.1%*	2,987,638	*8.4%*
Al Batinah PC SAOC	4,501,556	*12.5%*	4,331,115	*12.1%*
Al Ghubrah SAOC	1,969,933	*5.5%*	1,817,169	*5.1%*
Al Kamil SAOG	217,272	*0.6%*	214,390	*0.6%*
Al Rusail SAOG	1,918,028	*5.3%*	1,903,338	*5.3%*
Al Suwadi PC SAOC	4,570,363	*12.7%*	4,471,289	*12.5%*
Phoenix Power Company SAOC	7,809,942	*21.6%*	7,809,787	*21.9%*
PWP other purchases			778,541	*2.2%*
SMN Barka SAOG	2,433,232	*6.7%*	2,223,916	*6.2%*
Sohar Power Company SAOG	3,571,197	*9.9%*	3,320,642	*9.3%*
UPC Manah SAOG	1,133,239	*3.1%*	1,125,513	*3.2%*
Wadi Jizzi SAOC	376,270	*1.0%*	373,600	*1.0%*
MIS sub-total	**31,783,535**	***88.0%***	**31,356,939**	***87.9%***
% change from 2016	**5.8%**		**6.1%**	
B: Rural Systems				
Bahwan Astonfield Solar Power LLC	569	*0.0%*	564	*0.0%*
Musandam Power Company SAOC	206,654	*0.6%*	188,514	*0.5%*
RAEC purchases from PDO			125,618	*0.4%*
RAEC SAOC	831,096	*2.3%*	777,005	*2.2%*
Rural Systems sub-total	**1,038,319**	***2.9%***	**1,091,702**	***3.1%***
% change from 2016	**10.5%**		**9.8%**	
C: Dhofar Power System				
DGC SAOC	663,437	*1.8%*	786,205	*2.2%*
PWP other purchases			-6,361	*0.0%*
SembcorpSalalah SAOC	2,640,666	*7.3%*	2,444,103	*6.9%*
Dhofar System sub-total	**3,304,103**	***9.1%***	**3,223,947**	***9.0%***
% change from 2016	**1.7%**		**5.5%**	
Totals for 2017	**36,125,957**	***100%***	**35,672,587**	***100%***
Actual change from 2016	**1,898,295**		**2,065,168**	
% change from 2016	**5.5%**		**6.1%**	

Table 7

Electricity Production by Region : 2016 & 2017

2016 Region	Electricity Production MWh Gross	% Oman	MWh Net	% Oman
Al Dahirah	1,851	0.0%	1,814	0.0%
Al Sharqiya	6,885,428	20.1%	6,867,814	20.4%
Al Wusta	245,447	0.7%	286,994	0.9%
Dakhliyah	1,149,906	3.4%	1,142,004	3.4%
Dhofar	3,500,154	10.2%	3,324,864	9.9%
Musandam	365,444	1.1%	351,928	1.0%
Muscat	3,878,883	11.3%	3,731,030	11.1%
North Batinah	9,130,665	26.7%	9,442,887	28.1%
South Batinah	9,069,885	26.5%	8,458,083	25.2%
Totals for 2016	**34,227,662**		**33,607,419**	

2017 Region	Electricity Production MWh Gross	% Oman	MWh Net	% Oman
Al Dahirah *Change from 2016 (%)*	1,859 *0.4%*	0.0%	1,822 *0.4%*	0.0%
Al Sharqiya *Change from 2016 (%)*	8,109,769 *17.8%*	22.4%	8,093,729 *17.9%*	22.7%
Al Wusta *Change from 2016 (%)*	278,261 *13.4%*	0.8%	388,156 *35.2%*	1.1%
Dakhliyah *Change from 2016 (%)*	1,133,239 *-1.4%*	3.1%	1,125,513 *-1.4%*	3.2%
Dhofar *Change from 2016 (%)*	3,590,696 *2.6%*	9.9%	3,525,711 *6.0%*	9.9%
Musandam *Change from 2016 (%)*	389,051 *6.5%*	1.1%	363,930 *3.4%*	1.0%
Muscat *Change from 2016 (%)*	3,887,961 *0.2%*	10.8%	3,735,915 *0.1%*	10.5%
North Batinah *Change from 2016 (%)*	8,449,023 *-7.5%*	23.4%	8,754,966 *-7.3%*	24.5%
South Batinah *Change from 2016 (%)*	10,286,098 *13.4%*	28.5%	9,682,844 *14.5%*	27.1%
Totals for 2017 Change from 2016 (%)	**36,125,957** *5.5%*		**35,672,587** *6.1%*	

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

Table 8

Electricity Production by Region and Company : 2016 & 2017

2016 Region	Company	Electricity Production Gross MWh	% Oman	Net MWh	% Oman
Al Dahirah	RAEC SAOC	1,851	*0.0%*	1,814	*0.0%*
Al Sharqiya	Al Kamil SAOG	385,845	*1.1%*	380,840	*1.1%*
Al Sharqiya	Phoenix Power Company SAOC	6,424,173	*18.8%*	6,424,019	*19.1%*
Al Sharqiya	PWP other purchases			20	*0.0%*
Al Sharqiya	RAEC SAOC	75,410	*0.2%*	62,935	*0.2%*
Al Wusta	PWP other purchases			-23,188	*-0.1%*
Al Wusta	RAEC purchases from PDO			88,169	*0.3%*
Al Wusta	RAEC SAOC	245,447	*0.7%*	222,014	*0.7%*
Dakhliyah	UPC Manah SAOG	1,149,906	*3.4%*	1,142,004	*3.4%*
Dhofar	Bahwan Astonfield Solar Power LL	571	*0.0%*	559	*0.0%*
Dhofar	DGC SAOC	735,686	*2.1%*	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	2,512,611	*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			5,679	*0.0%*
North Batinah	Al Batinah PC SAOC	4,585,531	*13.4%*	4,453,037	*13.3%*
North Batinah	PWP other purchases			681,506	*2.0%*
North Batinah	Sohar Power Company SAOG	3,929,811	*11.5%*	3,696,645	*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	*12.0%*	4,022,981	*12.0%*
South Batinah	SMN Barka SAOG	2,057,455	*6.0%*	1,855,662	*5.5%*
Sultanate Totals 2016		**34,227,662**		**33,607,419**	

2017 Region	Company	Electricity Production Gross MWh	% Oman	Net MWh	% Oman
Al Dahirah	RAEC SAOC	1,859	*0.0%*	1,822	*0.0%*
Al Sharqiya	Al Kamil SAOG	217,272	*0.6%*	214,390	*0.6%*
Al Sharqiya	Phoenix Power Company SAOC	7,809,942	*21.6%*	7,809,787	*21.9%*
Al Sharqiya	PWP other purchases			82	*0.0%*
Al Sharqiya	RAEC SAOC	82,555	*0.2%*	69,470	*0.2%*
Al Wusta	PWP other purchases			33,442	*0.1%*
Al Wusta	RAEC purchases from PDO			100,523	*0.3%*
Al Wusta	RAEC SAOC	278,261	*0.8%*	254,192	*0.7%*
Dakhliyah	UPC Manah SAOG	1,133,239	*3.1%*	1,125,513	*3.2%*
Dhofar	Bahwan Astonfield Solar Power LL	569	*0.0%*	564	*0.0%*
Dhofar	DGC SAOC	663,437	*1.8%*	786,205	*2.2%*
Dhofar	PWP other purchases			-6,361	*0.0%*
Dhofar	RAEC purchases from PDO			25,096	*0.1%*
Dhofar	RAEC SAOC	286,024	*0.8%*	276,105	*0.8%*
Dhofar	SembcorpSalalah SAOC	2,640,666	*7.3%*	2,444,103	*6.9%*
Musandam	Musandam Power Company SAOC	206,654	*0.6%*	188,514	*0.5%*
Musandam	RAEC SAOC	182,397	*0.5%*	175,416	*0.5%*
Muscat	Al Ghubrah SAOC	1,969,933	*5.5%*	1,817,169	*5.1%*
Muscat	Al Rusail SAOG	1,918,028	*5.3%*	1,903,338	*5.3%*
Muscat	PWP other purchases			15,409	*0.0%*
North Batinah	Al Batinah PC SAOC	4,501,556	*12.5%*	4,331,115	*12.1%*
North Batinah	PWP other purchases			729,609	*2.0%*
North Batinah	Sohar Power Company SAOG	3,571,197	*9.9%*	3,320,642	*9.3%*
North Batinah	Wadi Jizzi SAOC	376,270	*1.0%*	373,600	*1.0%*
South Batinah	ACWA Power Barka SAOG	3,282,503	*9.1%*	2,987,638	*8.4%*
South Batinah	Al Suwadi PC SAOC	4,570,363	*12.7%*	4,471,289	*12.5%*
South Batinah	SMN Barka SAOG	2,433,232	*6.7%*	2,223,916	*6.2%*
Sultanate Totals 2017		**36,125,957**		**35,672,587**	
	Change from 2016 (%)	*5.5%*		*6.1%*	

Table 9i

Monthly Electricity Production by System : MIS 2014 to 2017

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**	

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**	

Table 9i

Monthly Electricity Production by System : MIS 2014 to 2017

2016		Electricity Production			
System	Month	Gross GWh	% Year	Net GWh	% Year
MIS	Jan-16	1,696.5	5.6%	1,614.0	5.5%
MIS	Feb-16	1,642.1	5.5%	1,561.4	5.3%
MIS	Mar-16	2,016.1	6.7%	1,928.1	6.5%
MIS	Apr-16	2,257.3	7.5%	2,165.1	7.3%
MIS	May-16	2,981.2	9.9%	3,112.9	10.5%
MIS	Jun-16	3,115.5	10.4%	3,275.0	11.1%
MIS	Jul-16	3,463.9	11.5%	3,328.8	11.3%
MIS	Aug-16	3,378.9	11.2%	3,226.7	10.9%
MIS	Sep-16	2,869.9	9.6%	2,856.1	9.7%
MIS	Oct-16	2,635.1	8.8%	2,665.9	9.0%
MIS	Nov-16	2,069.7	6.9%	1,995.7	6.8%
MIS	Dec-16	1,913.0	6.4%	1,825.9	6.2%
2016 Totals		**30,039.4**		**29,555.7**	

2017		Electricity Production			
System	Month	Gross GWh	% Year	Net GWh	% Year
MIS	Jan-17	1,854.0	5.8%	1,772.6	5.7%
MIS	Feb-17	1,641.5	5.2%	1,567.9	5.0%
MIS	Mar-17	2,172.5	6.8%	2,088.3	6.7%
MIS	Apr-17	2,704.2	8.5%	2,592.6	8.3%
MIS	May-17	3,323.8	10.5%	3,312.1	10.6%
MIS	Jun-17	3,481.8	11.0%	3,501.5	11.2%
MIS	Jul-17	3,563.2	11.2%	3,584.5	11.4%
MIS	Aug-17	3,309.2	10.4%	3,351.6	10.7%
MIS	Sep-17	3,061.5	9.6%	3,093.4	9.9%
MIS	Oct-17	2,855.6	9.0%	2,833.3	9.0%
MIS	Nov-17	2,144.3	6.7%	2,056.1	6.6%
MIS	Dec-17	1,672.0	5.3%	1,603.0	5.1%
2017 Totals		**31,783.5**		**31,356.9**	

Table 9ii

Monthly Electricity Production by System : Rural Systems 2014 to 2017

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**	

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**	

Table 9ii

Monthly Electricity Production by System : Rural Systems 2014 to 2017

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**	

2017		Electricity Production			
System	Month	Gross GWh	% Year	Net GWh	% Year
Rural Systems	Jan-17	62.6	6.0%	58.1	5.3%
Rural Systems	Feb-17	56.3	5.4%	51.0	4.7%
Rural Systems	Mar-17	74.9	7.2%	83.7	7.7%
Rural Systems	Apr-17	92.6	8.9%	96.0	8.8%
Rural Systems	May-17	108.7	10.5%	114.3	10.5%
Rural Systems	Jun-17	112.6	10.8%	122.6	11.2%
Rural Systems	Jul-17	104.8	10.1%	107.8	9.9%
Rural Systems	Aug-17	103.1	9.9%	99.5	9.1%
Rural Systems	Sep-17	102.3	9.9%	113.9	10.4%
Rural Systems	Oct-17	97.9	9.4%	112.7	10.3%
Rural Systems	Nov-17	68.7	6.6%	73.4	6.7%
Rural Systems	Dec-17	53.8	5.2%	58.8	5.4%
2017 Totals		**1,038.3**		**1,091.7**	

Table 9iii

Monthly Electricity Production by System : Dhofar Power Systems 2014 to 2017

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**	

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**	

Table 9iii

Monthly Electricity Production by System : Dhofar Power Systems 2014 to 2017

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	9.5%	283.9	9.3%
Dhofar Power System	May-16	351.1	10.8%	332.7	10.9%
Dhofar Power System	Jun-16	311.1	9.6%	304.5	10.0%
Dhofar Power System	Jul-16	261.1	8.0%	243.2	8.0%
Dhofar Power System	Aug-16	277.7	8.5%	262.7	8.6%
Dhofar Power System	Sep-16	278.7	8.6%	263.8	8.6%
Dhofar Power System	Oct-16	279.5	8.6%	264.6	8.7%
Dhofar Power System	Nov-16	258.0	7.9%	237.3	7.8%
Dhofar Power System	Dec-16	241.7	7.4%	228.1	7.5%
2016 Totals		**3,248.3**		**3,057.2**	

2017		Electricity Production			
System	Month	Gross GWh	% Year	Net GWh	% Year
Dhofar Power System	Jan-17	223.9	6.8%	208.9	6.5%
Dhofar Power System	Feb-17	206.2	6.2%	192.9	6.0%
Dhofar Power System	Mar-17	278.0	8.4%	262.3	8.1%
Dhofar Power System	Apr-17	319.9	9.7%	294.8	9.1%
Dhofar Power System	May-17	356.8	10.8%	337.2	10.5%
Dhofar Power System	Jun-17	364.5	11.0%	338.7	10.5%
Dhofar Power System	Jul-17	297.5	9.0%	285.1	8.8%
Dhofar Power System	Aug-17	297.2	9.0%	283.8	8.8%
Dhofar Power System	Sep-17	298.9	9.0%	281.8	8.7%
Dhofar Power System	Oct-17	272.1	8.2%	284.6	8.8%
Dhofar Power System	Nov-17	235.6	7.1%	253.6	7.9%
Dhofar Power System	Dec-17	153.4	4.6%	200.2	6.2%
2017 Totals		**3,304.1**		**3,223.9**	

Table 10 i

Quarterly Electricity Production by System : 2014 to 2017

		Electricity Production			
System	Period	Gross GWh	% Year	Net GWh	% Year
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%	5,103.5	17.3%
MIS	Qtr 2-16	8,354.0	27.8%	8,552.9	28.9%
MIS	Qtr 3-16	9,712.7	32.3%	9,411.6	31.8%
MIS	Qtr 4-16	6,617.8	22.0%	6,487.6	22.0%
2016 Totals		**30,039.4**		**29,555.7**	
MIS	Qtr 1-17	5,668.0	17.8%	5,428.9	17.3%
MIS	Qtr 2-17	9,509.7	29.9%	9,406.2	30.0%
MIS	Qtr 3-17	9,933.9	31.3%	10,029.4	32.0%
MIS	Qtr 4-17	6,671.9	21.0%	6,492.4	20.7%
2017 Totals		**31,783.5**		**31,356.9**	

Table 10 ii

Quarterly Electricity Production by System : 2014 to 2017

		Electricity Production			
System	**Period**	**Gross GWh**	% Year	**Net GWh**	% Year
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**	
Rural Systems	Qtr 1-17	193.8	*18.7%*	192.8	*17.7%*
Rural Systems	Qtr 2-17	313.9	*30.2%*	332.9	*30.5%*
Rural Systems	Qtr 3-17	310.2	*29.9%*	321.1	*29.4%*
Rural Systems	Qtr 4-17	220.4	*21.2%*	244.9	*22.4%*
2017 Totals		**1,038.3**		**1,091.7**	

Table 10 iii

Quarterly Electricity Production by System : 2014 to 2017

		Electricity Production			
System	**Period**	**Gross GWh**	% Year	**Net GWh**	% Year
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	21.0%	636.4	20.8%
Dhofar Power System	Qtr 2-16	970.9	29.9%	921.1	30.1%
Dhofar Power System	Qtr 3-16	817.6	25.2%	769.7	25.2%
Dhofar Power System	Qtr 4-16	779.2	24.0%	729.9	23.9%
2016 Totals		**3,248.3**		**3,057.2**	
Dhofar Power System	Qtr 1-17	708.1	21.4%	664.1	20.6%
Dhofar Power System	Qtr 2-17	1,041.2	31.5%	970.7	30.1%
Dhofar Power System	Qtr 3-17	893.6	27.0%	850.7	26.4%
Dhofar Power System	Qtr 4-17	661.1	20.0%	738.5	22.9%
2017 Totals		**3,304.1**		**3,223.9**	

Table 11

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

2017				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
Al Dahirah																
02/020	Masrooq	Electricity	1994	1,200	960	3			50oC	520	45.8%	1,859	1,822			628
	Totals for 1 Systems in Al Dahirah			**1,200**	**960**	**3**						**1,859**	**1,822**			**628**
Al Sharqiya																
02/019	Masirah	Cogen	1976	22,431	17,945	17	146,400	10	50oC	16,570	7.7%	72,223	59,814	1,577	1,437	19,010
02/059	Masirah (New)	Electricity	2017	56,000	44,800	7			50oC	15,301	65.8%	10,333	9,656			2,777
	Totals for 2 Systems in Al Sharqiya			**78,431**	**62,745**	**24**	**146,400**	**10**				**82,555**	**69,470**	**1,577**	**1,437**	**21,787**
Al Wusta																
02/001	AbuMudabi	Cogen	1985	0	0		4,800	3	50oC			0	0	45	44	1
02/027	Sawgrah	Cogen	1998	0	0		6,000	2	50oC					47	47	0
02/037	Al Duqm (new)	Cogen	2010	52,789	42,231	9	192,000	4	50oC	30,700	27.3%	148,709	128,263	1,770	1,708	40,683
02/005	Al Khaluf	Electricity	2007	2,508	2,006	3			50oC	1,013	49.5%	4,366	4,221			1,334
02/006	Al Khuiaima	Electricity	2004	5,948	4,758	9			50oC	3,310	30.4%	15,000	14,696			4,276
02/010	AlNajdah	Electricity	2007	2,700	1,760	4			50oC	1,223	30.5%	4,318	4,193			1,362
02/016	Hij	Electricity	1999	18,892	16,280	7			50oC	13,530	16.9%	56,649	56,279			15,646
02/017	Hitam	Electricity	2007	3,432	2,746	7			50oC	1,420	48.3%	6,080	5,761			1,879
02/030	Surab	Electricity	2006	3,500	2,800	6			50oC	1,616	42.3%	6,225	6,041			2,037
02/045	Dhafrat	Electricity	2009	2,260	1,808	4			50oC	1,200	33.6%	3,774	3,592			1,566
02/046	Al Khadra	Electricity	2011	12,676	10,140	5			50oC	6,150	39.3%	27,412	25,418			7,943
02/057	Nahaida	Electricity	2016	1,000	850	1			50oC	750	11.8%	64	64			288
02/058	Wadi Aswad (P)	Electricity	2016	8,000	6,000	8			50oC	5,600	6.7%	5,664	5,664			1,524
	Totals for 13 Systems in Al Wusta			**113,705**	**91,379**	**63**	**202,800**	**9**				**278,261**	**254,192**	**1,862**	**1,799**	**78,539**

Table 11

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

2017				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	1,565	1,252	5	4,752	3	50oC	460	63.3%	1,933	1,300	54	53	603
01/002	Al Mathfa	Electricity	2002	660	528	5			50oC	220	58.3%	784	778			341
01/004	Andat	Electricity	2011	2,012	1,610	6			50oC	820	49.1%	3,030	3,019			872
01/007	Ayun	Electricity	2000	749	599	3			50oC	200	66.6%	855	846			356
01/008	Barbazum	Electricity	2000	1,488	1,190	6			50oC	695	41.6%	2,753	2,740			812
01/012	Dhahabun	Electricity	2000	3,760	3,008	6			50oC	1,724	42.7%	6,527	6,510			2,182
01/014	Fatkhat	Electricity	2002	534	427	3			50oC	265	37.9%	1,168	1,160			420
01/016	Hirweeb	Electricity	2001	1,775	1,420	6			50oC	1,150	19.0%	3,804	3,782			1,174
01/019	Mahwice	Electricity	2002	905	724	6			50oC	228	68.5%	996	987			349
01/020	Maqshan	Electricity	2001	1,788	1,430	7			50oC	820	42.7%	3,577	3,532			1,249
01/021	Mazyunah	Electricity	2000	14,000	11,200	8			50oC	7,860	29.8%	33,595	32,092			9,194
01/023	Mitan	Electricity	2001	3,207	2,566	7			50oC	1,040	59.5%	3,882	3,862			1,186
01/024	Mothorah	Electricity	2006	2,012	1,609	5			50oC	445	72.3%	1,938	1,893			626
01/035	Shahb Asayb	Electricity	2000	14,000	11,200	9			50oC	9,280	17.1%	45,089	44,330			11,944
01/037	Sharbatat	Electricity	1998	2,292	1,833	6			50oC	1,070	41.6%	4,839	4,775			1,594
01/040	Tushnat	Electricity	2001	1,170	936	4			50oC	360	61.5%	1,598	1,582			518
01/046	Mudhai (new)	Electricity	2011	3,404	3,078	6			50oC	2,000	35.0%	8,247	7,755			2,506
01/047	Hasik (new)	Electricity	2012	5,000	4,000	6			50oC	2,572	35.7%	10,536	10,290			3,326
01/052	Saih Al Khirat (N	Electricity	2016	48,702	38,962	6			50oC	24,400	37.4%	150,875	144,870			36,637
	Totals for 19 Systems in Dhofar			**109,023**	**87,572**	**110**	**4,752**	**3**				**286,024**	**276,105**	**54**	**53**	**75,890**

Table 11

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

2017				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	930	350	2	10,800	3	50oC	80	77.1%	0	0	75	74	0
03/002	Dibba	Electricity	1978	23,430	22,744	5			50oC	20,100	11.6%	87,885	87,542			24,277
03/005	Khasab	Electricity	1982	67,400	53,920	13			50oC	40,100	25.6%	66,019	61,150			17,437
03/007	Madha	Electricity	1982	11,300	9,040	6			50oC	7,220	20.1%	28,493	26,723			8,627
	Totals for 4 Systems in Musandam			**103,060**	**86,054**	**26**	**10,800**	**3**				**182,397**	**175,416**	**75**	**74**	**50,341**
	Totals for 39 RAEC Production Systems			**405,419**	**328,710**	**226**	**364,752**	**25**				**831,096**	**777,005**	**3,567**	**3,363**	**227,185**

note 1 Tibat Power Station was commissioned on summer 2017, and replaced Khasab power station.

note 2 Rental generation supported systems with negative demand margins.

note 3 additional rental engines was included in Wadi Aswad (02/058) and Nehaida (02/057) network systems.

2017 Regional Summary	Generating Capacity			Water Capacity		Production & Fuel Consumption				
	Installed kW	Derated kW	Num units	Installed m3/day	Num units	Gross MWh	Net MWh	Gross 000'm3	Net 000'm3	Diesel 000'Ltrs
Totals for 1 RAEC System in Al Dahirah	1,200	960	3			1,859	1,822			628
Totals for 2 RAEC Systems in Al Sharqiya	78,431	62,745	24	146,400	10	82,555	69,470	1,577	1,437	21,787
Totals for 13 RAEC Systems in Al Wusta	113,705	91,379	63	202,800	9	278,261	254,192	1,862	1,799	78,539
Totals for 19 RAEC Systems in Dhofar	109,023	87,572	110	4,752	3	286,024	276,105	54	53	75,890
Totals for 4 RAEC Systems in Musandam	103,060	86,054	26	10,800	3	182,397	175,416	75	74	50,341
Totals for 39 RAEC Production System	**405,419**	**328,710**	**226**	**364,752**	**25**	**831,096**	**777,005**	**3,567**	**3,363**	**227,185**

Table 12

Technical and non-technical Losses by System : 2010 to 2017

	Main Interconnected System								% Changes 2016-2017
GWh	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	
Sent out Generation:	16,552.4	18,385.5	21,022.7	21,998.3	24,462.9	27,676.3	28,891.7	30,578.4	*5.8%*
'Other' Purchases (note 1):	302.6	564.8	596.4	559.7	530.2	657.3	664.0	778.5	*17.2%*
GWh entering systems:	16,855.0	18,950.3	21,619.1	22,558.0	24,993.1	28,333.6	29,555.7	31,356.9	*6.1%*
Supply to Customers:	14,121.6	16,374.5	18,502.2	20,021.0	22,097.7	25,512.6	26,842.6	28,582.2	*6.5%*
Total Losses %	**16.2%**	**13.6%**	**14.4%**	**11.2%**	**11.6%**	**10.0%**	**9.2%**	**8.8%**	***-0.3%pp***

	Rural Systems								% Changes 2016-2017
GWh	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	
Sent out Generation:	412.8	470.1	556.0	635.3	698.1	806.7	880.0	777.0	*-11.7%*
'Other' Purchases (note 1):	48.7	59.9	74.7	94.3	124.7	107.4	114.5	314.7	*174.8%*
GWh entering systems:	461.5	530.0	630.7	729.6	822.8	914.1	994.6	1,091.7	*9.8%*
Supply to Customers (note	420.1	468.9	559.4	650.9	747.1	816.4	848.7	914.0	*7.7%*
Total Losses %	**9.0%**	**11.5%**	**11.3%**	**10.8%**	**9.2%**	**10.7%**	**14.7%**	**16.3%**	***1.6%pp***

	Dhofar Power System								% Changes 2016-2017
GWh	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	
Sent out Generation:	1,819.0	1,907.3	2,269.3	2,467.9	2,651.7	2,939.2	3,056.2	3,230.3	*5.7%*
'Other' Purchases (note 1):	72.4	26.4	0.0	0.0	0.0	2.4	1.0	-6.4	*-729.9%*
GWh entering systems:	1,891.4	1,933.7	2,269.3	2,467.9	2,651.7	2,941.7	3,057.2	3,223.9	*5.5%*
Supply to Customers:	1,590.8	1,668.9	1,896.6	2,118.8	2,327.3	2,583.4	2,667.4	2,853.3	*7.0%*
Total Losses %	**15.9%**	**13.7%**	**16.4%**	**14.1%**	**12.2%**	**12.2%**	**12.7%**	**11.5%**	***-1.25% 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, Bahwan Aston Field Solar Power LLC and Musandam Power Company; and Dhofar Other purchases are units purchased by PWP from RAEC (2010-2011) and PDO (2015-2017).

Water Sector Statistics

Table 1

Water Production by Zone : 2014 to 2017

2014	Water Production			
Zone	**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	Water Production			
Zone	**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	Water Production			
Zone	**Gross m3**	*% Year*	**Net m3**	*% Year*
Interconnected & Sharqiyah Zones	268,443,881	*90.9%*	263,343,474	*90.8%*
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**		**289,896,386**	

2017	Water Production			
Zone	**Gross m3**	*% Year*	**Net m3**	*% Year*
Interconnected & Sharqiyah Zones	280,270,041	*91.0%*	277,322,613	*91.0%*
Rural Zones	3,549,383	*1.2%*	3,381,030	*1.1%*
Dhofar Zone	24,212,130	*7.9%*	24,212,130	*7.9%*
Total for 2017	**308,031,553**		**304,915,773**	

Table 2

Water Production by Zone and Company : 2016 to 2017

2016	Water Production			
	Gross m3	% Oman	Net m3	% Oman
A: Interconnected & Sharqiyah Zones				
ACWA Power Barka SAOG	64,676,368	*21.9%*	64,547,411	*22.3%*
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%*	**263,343,474**	*90.8%*
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%*
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%*
Totals for 2016	**295,199,724**	*100%*	**289,896,386**	*100%*

2017	Water Production			
	Gross m3	% Oman	Net m3	% Oman
A: Interconnected & Sharqiyah Zones				
ACWA Power Barka SAOG	62,221,232	*20.2%*	62,089,830	*20.4%*
Al Ghubrah SAOC	37,865,959	*12.3%*	37,142,662	*12.2%*
Muscat City Desalination Company SAOC	57,162,655	*18.6%*	57,162,668	*18.7%*
Sharqiyah Desalination Company SAOG	34,039,289	*11.1%*	33,334,863	*10.9%*
SMN Barka SAOG	41,250,255	*13.4%*	41,060,649	*13.5%*
Sohar Power Company SAOG	47,730,651	*15.5%*	46,531,941	*15.3%*
ISZ sub-total	**280,270,041**	*91.0%*	**277,322,613**	*91.0%*
% change from 2016	**4.4%**		**5.3%**	
B: Rural Zones				
RAEC SAOC	3,549,383	*1.2%*	3,381,030	*1.1%*
Rural Zones sub-total	**3,549,383**	*1.2%*	**3,381,030**	*1.1%*
% change from 2016	**3.7%**		**5.0%**	
C: Dhofar Zone				
SembcorpSalalah SAOC	24,212,130	*7.9%*	24,212,130	*7.9%*
Dhofar Zone sub-total	**24,212,130**	*7.9%*	**24,212,130**	*7.9%*
% change from 2016	**3.8%**		**3.8%**	
Totals for 2017	**308,031,553**	*100%*	**304,915,773**	*100%*
Actual change from 2016	**12,831,829**		**15,019,387**	
% change from 2016	**4.3%**		**5.2%**	

Table 3

Water Production by Zone Region : 2016 to 2017

2016 Region	Water Production m3 Gross	% Oman	m3 Net	% Oman
Al Sharqiya	31,366,990	10.6%	29,116,162	10.0%
Al Wusta	3,301,357	1.1%	3,099,740	1.1%
Dhofar	23,380,822	7.9%	23,380,496	8.1%
Musandam	73,664	0.0%	72,676	0.0%
Muscat	87,527,581	29.7%	86,721,673	29.9%
North Batinah	45,875,948	15.5%	44,128,150	15.2%
South Batinah	103,673,362	35.1%	103,377,489	35.7%
Totals for 2016	**295,199,724**		**289,896,386**	

2017 Region	Water Production m3 Gross	% Oman	m3 Net	% Oman
Al Sharqiya *Change from 2016 (%)*	34,039,289 *8.5%*	11.1%	33,334,863 *14.5%*	10.9%
Al Wusta *Change from 2016 (%)*	3,420,890 *3.6%*	1.1%	3,254,230 *5.0%*	1.1%
Dhofar *Change from 2016 (%)*	24,265,848 *3.8%*	7.9%	24,265,320 *3.8%*	8.0%
Musandam *Change from 2016 (%)*	74,775 *1.5%*	0.0%	73,610 *1.3%*	0.0%
Muscat *Change from 2016 (%)*	95,028,614 *8.6%*	30.9%	94,305,330 *8.7%*	30.9%
North Batinah *Change from 2016 (%)*	47,730,651 *4.0%*	15.5%	46,531,941 *5.4%*	15.3%
South Batinah *Change from 2016 (%)*	103,471,487 *-0.2%*	33.6%	103,150,479 *-0.2%*	33.8%
Totals for 2017 Change from 2016 (%)	**308,031,553** *4.3%*		**304,915,773** *5.2%*	

Table 4

Water Production by Region and Company : 2015 to 2016

2016 Region	Company	Water Production Gross m3	% Oman	Net m3	% Oman
Al Sharqiya	Sharqiyah 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 Company SAOG	45,875,948	*15.5%*	44,128,150	*15.2%*
South Batinah	ACWA Power Barka SAOG	64,676,368	*21.9%*	64,547,411	*22.3%*
South Batinah	SMN Barka SAOG	38,996,994	*13.2%*	38,830,078	*13.4%*
Sultanate Totals 2016		**295,199,724**		**289,896,386**	

2017 Region	Company	Water Production Gross m3	% Oman	Net m3	% Oman
Al Sharqiya	Sharqiyah Desalination Compa	34,039,289	*11.1%*	33,334,863	*10.9%*
Al Wusta	RAEC SAOC	3,420,890	*1.1%*	3,254,230	*1.1%*
Dhofar	RAEC SAOC	53,718	*0.0%*	53,190	*0.0%*
Dhofar	SembcorpSalalah SAOC	24,212,130	*7.9%*	24,212,130	*7.9%*
Musandam	RAEC SAOC	74,775	*0.0%*	73,610	*0.0%*
Muscat	Al Ghubrah SAOC	37,865,959	*12.3%*	37,142,662	*12.2%*
Muscat	Muscat City Desalination Comp	57,162,655	*18.6%*	57,162,668	*18.7%*
North Batinah	Sohar Power Company SAOG	47,730,651	*15.5%*	46,531,941	*15.3%*
South Batinah	ACWA Power Barka SAOG	62,221,232	*20.2%*	62,089,830	*20.4%*
South Batinah	SMN Barka SAOG	41,250,255	*13.4%*	41,060,649	*13.5%*
Sultanate Totals 2017		**308,031,553**		**304,915,773**	
Change from 2016 (%)		*4.3%*		*5.2%*	

Table 5i

Monthly Water Production by Zone : Interconnected & Sharqiyah Zone 2014 to 2017

2014 Zone	Month	Water Production Gross '000 m3	% Year	Net '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**	

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**	

Table 5i

Monthly Water Production by Zone : Interconnected & Sharqiyah Zone 2014 to 2017

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%	19,333.5	7.3%
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	8.4%
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**		**263,343.5**	

2017 Zone	Month	Water Production Gross '000 m3	% Year	Net '000 m3	% Year
Interconnected & Sharqiyah Zone	Jan-17	21,830.0	7.8%	21,512.8	7.8%
Interconnected & Sharqiyah Zone	Feb-17	19,448.2	6.9%	19,152.4	6.9%
Interconnected & Sharqiyah Zone	Mar-17	21,987.6	7.8%	21,651.7	7.8%
Interconnected & Sharqiyah Zone	Apr-17	22,476.8	8.0%	22,211.1	8.0%
Interconnected & Sharqiyah Zone	May-17	24,442.3	8.7%	24,199.4	8.7%
Interconnected & Sharqiyah Zone	Jun-17	24,108.2	8.6%	23,858.0	8.6%
Interconnected & Sharqiyah Zone	Jul-17	25,177.2	9.0%	24,904.7	9.0%
Interconnected & Sharqiyah Zone	Aug-17	24,928.5	8.9%	24,751.5	8.9%
Interconnected & Sharqiyah Zone	Sep-17	23,832.4	8.5%	23,651.6	8.5%
Interconnected & Sharqiyah Zone	Oct-17	25,309.4	9.0%	25,093.0	9.0%
Interconnected & Sharqiyah Zone	Nov-17	23,657.8	8.4%	23,495.3	8.5%
Interconnected & Sharqiyah Zone	Dec-17	23,071.7	8.2%	22,841.1	8.2%
2017 Totals		**280,270.0**		**277,322.6**	

Table 5ii

Monthly Water Production by Zone : Rural Zone 2014 to 2017

2014 Zone	Month	Water Production Gross '000 m3	% Year	Net '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**	

2015 Zone	Month	Water Production 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**	

Table 5ii

Monthly Water Production by Zone : Rural Zone 2014 to 2017

2016 Zone	Month	Water Production 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**	

2017 Zone	Month	Water Production Gross '000 m3	% Year	Net '000 m3	% Year
Rural Zone	Jan-17	286.7	8.1%	273.4	8.1%
Rural Zone	Feb-17	262.3	7.4%	248.6	7.4%
Rural Zone	Mar-17	308.8	8.7%	291.5	8.6%
Rural Zone	Apr-17	308.4	8.7%	293.8	8.7%
Rural Zone	May-17	322.6	9.1%	306.7	9.1%
Rural Zone	Jun-17	295.5	8.3%	281.3	8.3%
Rural Zone	Jul-17	294.4	8.3%	277.0	8.2%
Rural Zone	Aug-17	298.4	8.4%	280.2	8.3%
Rural Zone	Sep-17	284.7	8.0%	263.0	7.8%
Rural Zone	Oct-17	296.4	8.4%	273.2	8.1%
Rural Zone	Nov-17	300.0	8.5%	283.6	8.4%
Rural Zone	Dec-17	291.2	8.2%	308.8	9.1%
2017 Totals		**3,549.4**		**3,381.0**	

Table 5iii

Monthly Water Production by Zone : Dhofar Zone 2014 to 2017

2014 Zone	Month	Water Production Gross '000 m3	% Year	Net '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**	

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**	

Table 5iii

Monthly Water Production by Zone : Dhofar Zone 2014 to 2017

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**	

2017 Zone	Month	Water Production Gross '000 m3	% Year	Net '000 m3	% Year
Dhofar Zone	Jan-17	2,019.8	8.3%	2,019.8	8.3%
Dhofar Zone	Feb-17	1,800.8	7.4%	1,800.8	7.4%
Dhofar Zone	Mar-17	1,951.1	8.1%	1,951.1	8.1%
Dhofar Zone	Apr-17	2,037.1	8.4%	2,037.1	8.4%
Dhofar Zone	May-17	2,113.9	8.7%	2,113.9	8.7%
Dhofar Zone	Jun-17	2,038.5	8.4%	2,038.5	8.4%
Dhofar Zone	Jul-17	2,102.2	8.7%	2,102.2	8.7%
Dhofar Zone	Aug-17	1,934.6	8.0%	1,934.6	8.0%
Dhofar Zone	Sep-17	2,038.9	8.4%	2,038.9	8.4%
Dhofar Zone	Oct-17	2,097.4	8.7%	2,097.4	8.7%
Dhofar Zone	Nov-17	2,008.5	8.3%	2,008.5	8.3%
Dhofar Zone	Dec-17	2,069.4	8.5%	2,069.4	8.5%
2017 Totals		**24,212.1**		**24,212.1**	

Table 6i

Quarterly Water Production by Zone : 2014 to 2017

		Water Production			
Zone	**Period**	**Gross '000 m3**	% Year	**Net '000 m3**	% Year
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%	61,850.5	23.5%
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	25.7%
Interconnected & Sharqiyah Zones	Qtr 4-16	67,156.2	25.0%	66,180.2	25.1%
2016 Totals		**268,443.9**		**263,343.5**	
Interconnected & Sharqiyah Zones	Qtr 1-17	63,265.8	22.6%	62,316.9	22.5%
Interconnected & Sharqiyah Zones	Qtr 2-17	71,027.3	25.3%	70,268.5	25.3%
Interconnected & Sharqiyah Zones	Qtr 3-17	73,938.0	26.4%	73,307.9	26.4%
Interconnected & Sharqiyah Zones	Qtr 4-17	72,038.9	25.7%	71,429.4	25.8%
2017 Totals		**280,270.0**		**277,322.6**	

Table 6ii

Quarterly Water Production by Zone : 2014 to 2017

		Water Production			
Zone	**Period**	**Gross '000 m3**	% Year	**Net '000 m3**	% Year
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**	
Rural Zones	Qtr 1-17	857.7	24.2%	813.5	24.1%
Rural Zones	Qtr 2-17	926.5	26.1%	881.8	26.1%
Rural Zones	Qtr 3-17	877.5	24.7%	820.2	24.3%
Rural Zones	Qtr 4-17	887.7	25.0%	865.6	25.6%
2017 Totals		**3,549.4**		**3,381.0**	

Table 6iii

Quarterly Water Production by Zone : 2014 to 2017

		Water Production			
Zone	**Period**	**Gross '000 m3**	% Year	**Net '000 m3**	% Year
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**	
Dhofar Zone	Qtr 1-17	5,771.7	23.8%	5,771.7	23.8%
Dhofar Zone	Qtr 2-17	6,189.5	25.6%	6,189.5	25.6%
Dhofar Zone	Qtr 3-17	6,075.7	25.1%	6,075.7	25.1%
Dhofar Zone	Qtr 4-17	6,175.3	25.5%	6,175.3	25.5%
2017 Totals		**24,212.1**		**24,212.1**	

Annex D

Electricity Subsidy Calculations

2017 MIS Outturn Subsidy

Maximum Allowed Supply Revenue				2017 outturn	2016 Outturn	
Rial Omani	MEDC	MJEC	MZEC	Total	Total	% Change
PC (Energy cost)	218,513,709	171,045,988	181,628,400	**571,188,098**	**536,109,775**	**7%**
TUoS (Transmission cost)	27,659,601	17,009,873	25,193,475	**69,862,949**	**70,659,161**	**-1%**
DUoS (Distribution cost)	44,862,176	41,237,500	70,928,320	**157,027,996**	**162,368,506**	**-3%**
SB (Supply cost)	12,062,799	8,432,386	12,760,693	**33,255,878**	**31,335,476**	**6%**
LF (Licence fee)	86,389	86,389	86,389	**259,167**	**160,476**	**61%**
KS (Correction factor)	(5,390,368)	10,674,732	(10,168,304)	**(4,883,939)**	**(4,764,102)**	**3%**
Maximum Allowed Supply Revenue	**308,575,043**	**227,137,404**	**300,765,581**	**836,478,028**	**805,397,496**	**4%**

Actual Regulated Supply Revenue						
Rial Omani	MEDC	MJEC	MZEC	Total	Total	Variance
Approved Subsidy	98,496,427	82,238,780	148,558,553	**329,293,760**	**384,763,899**	**-14%**
Permitted Tariff (& other) Revenue	195,782,231	149,014,203	129,727,244	**474,523,678**	**415,504,595**	**14%**
Actual Regulated Supply Revenue	294,278,658	231,252,983	278,285,797	**803,817,438**	**800,268,494**	**0%**
Outturn Subsidy Requirement	112,792,811	78,123,201	171,038,337	**361,954,350**	**389,892,900**	**-7%**

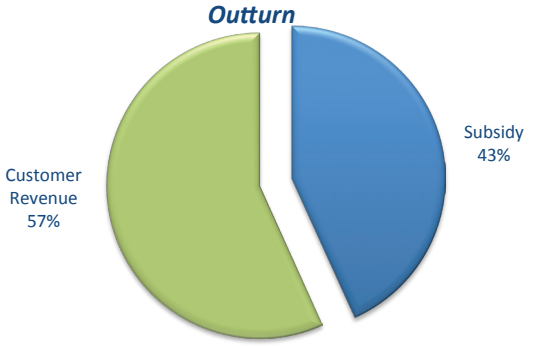
Subsidy per kWh						
(bz/kWh)	Muscat	Majan	Mazoon	Total	Total	Variance
Economic Cost	28.3	25.1	34.9	**29.3**	**30.0**	**-2%**
Subsidy (Outturn)	10.3	8.6	19.9	**12.7**	**14.5**	**-13%**
Customer Revenue	17.9	16.5	15.1	**16.6**	**15.5**	**7%**

Source: Company SCRCs, Authority calculations

Key:

PC means the cost of bulk supply purchaces 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 Revenue and Subsidy Outturn



2018 MIS Subsidy Forecast

Maximum Allowed Supply Revenue				2018 Forecast	2017 outturn	
Rial Omani	Muscat	Majan	Mazoon	Total	Total	% Change
PC (Energy cost)	225,255,015	179,398,850	182,043,105	**586,696,970**	**571,188,098**	**3%**
TUoS (Transmission cost)	26,984,747	18,391,366	26,540,525	**71,916,639**	**69,862,949**	**3%**
DUoS (Distribution cost)	55,797,925	52,236,785	88,730,683	**196,765,393**	**157,027,996**	**25%**
SB (Supply cost)	12,609,477	9,378,040	12,283,550	**34,271,067**	**33,255,878**	**3%**
LF (Licence fee)	99,614	99,614	99,614	**298,842**	**259,167**	**15%**
KS (Correction factor)	(14,469,847)	4,165,514	(22,752,539)	**(33,056,872)**	**(4,883,939)**	**577%**
Maximum Allowed Supply Revenue	**335,216,626**	**255,339,141**	**332,450,016**	**923,005,783**	**836,478,028**	**10%**

Actual Regulated Supply Revenues						
Rial Omani	Muscat	Majan	Mazoon	Total	Total	Variance
Approved Subsidy	127,431,322	99,886,865	193,457,894	**420,776,081**	**329,293,760**	**28%**
Permitted Tariff (& other) Revenue	207,408,603	164,580,989	134,641,442	**506,631,034**	**474,523,678**	**7%**
Actual Regulated Supply Revenue	334,839,925	264,467,854	328,099,336	**927,407,115**	**803,817,438**	**15%**

Subsidy per kWh						
(bz/kWh)	Muscat	Majan	Mazoon	Total	Total	Variance
Economic Cost	28.8	26.8	36.7	**30.6**	**29.3**	**4%**
Subsidy (Estimate)	11.0	9.5	21.8	**13.8**	**12.7**	**9%**
Customer Revenue	17.8	17.3	14.9	**16.8**	**16.6**	**1%**

Source: Company returns, Authority estimates

Key:

PC means the cost of bulk supply purchaces from PWP
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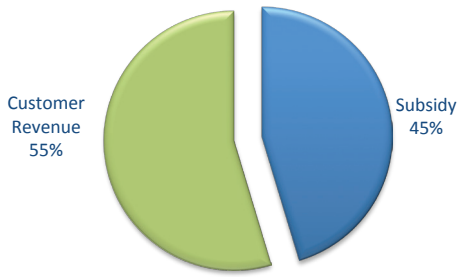
All in relevant year t

2018 MIS Revenue & Subsidy
Forecast



2017 RAEC Subsidy Outturn

Maximum Allowed Supply Revenue	2017 outturn	2016 outturn	
Rial Omani	Total	Total	% Change
PC (Energy cost)	59,871,962	55,963,787	7%
TUoS (Transmission cost)	6,217,590	6,184,782	1%
DUoS (Distribution cost)	16,816,814	16,035,246	5%
SB (Supply cost)	4,594,753	4,227,348	9%
LF (Licence fee)	86,402	53,492	62%
KS (Correction factor)	(2,000,832)	(1,590,893)	26%
Maximum Allowed Supply Revenue	89,588,352	84,055,549	7%

Actual Regulated Supply Revenue			
Rial Omani	Total	Total	Variance
Approved Subsidy	37,458,451	38,219,973	-2%
Permitted Tariff (& other) Revenue	52,458,876	42,423,508	24%
Actual Regulated Supply Revenue	89,917,327	79,643,481	13%
Outturn Subsidy Requirement	37,129,476	42,632,041	-13%

Subsidy per kWh			
(bz/kWh)	Total	Total	Variance
Economic Cost	31.4	31.5	0%
Subsidy (Estimate)	13.0	16.0	-19%
Customer Revenue	18.4	15.5	19%

Source: Company returns, Authority estimates

Key:

PC means the cost of bulk supply purchaces from PWP
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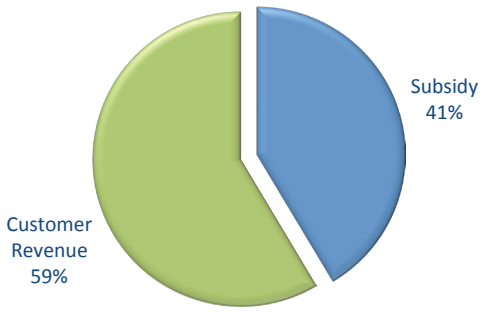
All in relevant year t

2017 DPC Revenue & Subsidy *Outturn*



2017 RAEC Subsidy Forecast

Maximum Allowed Electricity Revenue	2017 outturn	2016 outturn	
Rial Omani	Total	Total	% Change
MAGR (Generation cost)	76,967,021	66,743,859	15%
MANR (Networks cost)	18,885,006	18,466,338	2%
MASR (Supply cost)	5,813,050	5,507,119	6%
LF (Licence fee)	438,267	249,139	76%
K (Correction factor)	(5,406,695)	(965,642)	460%
Maximum Allowed Electricity Revenue	107,510,038	91,932,097	17%

Actual Regulated Electricity Revenue			
Rial Omani	Total	Total	Variance
Approved Subsidy	89,523,460	72,641,793	23%
Permitted Tariff (& other) Revenue	16,983,342	13,948,405	22%
Actual Regulated Electricity Revenue	106,506,802	86,590,198	23%
Outturn Subsidy Requirement	90,526,696	77,983,691	16%

Subsidy per kWh

(bz/kWh)	Total	Total	Variance
Economic Cost	117.6	108.3	9%
Subsidy (Outturn)	99.0	91.9	8%
Customer Revenue	18.6	16.4	13%

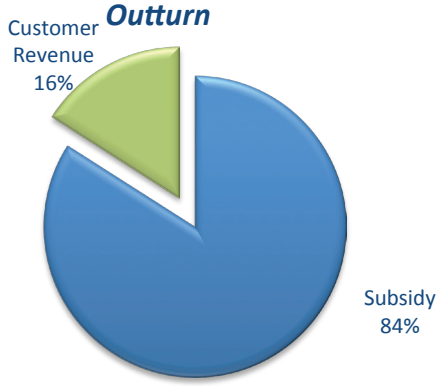
Source: Company SCRCs, Authority calculations

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 Revenue & Subsidy *Outturn*



2018 DPC Outturn Subsidy

Maximum Allowed Electricity Revenue *Rial Omani*	2018 Forecast Total	2017 outturn Total	% Change
MAGR (Generation cost)	86,625,685	76,967,021	13%
MANR (Networks cost)	26,959,148	18,885,006	43%
MASR (Supply cost)	5,268,822	5,813,050	-9%
LF (Licence fee)	591,992	438,267	35%
K (Correction factor)	(1,015,409)	(5,406,695)	-81%
Maximum Allowed Electricity Revenue	120,461,056	107,510,038	12%

Actual Regulated Electricity Revenue *Rial Omani*	Total	Total	Variance
Approved Subsidy	95,896,488	89,523,460	7%
Permitted Tariff (& other) Revenue	17,953,951	16,983,342	6%
Actual Regulated Electricity Revenue	113,850,439	106,506,802	7%

Subsidy per kWh

(bz/kWh)	Total	Total	Variance
Economic Cost	119.6	117.6	2%
Subsidy (Estimate)	101.7	99.0	3%
Customer Revenue	17.8	18.6	-4%

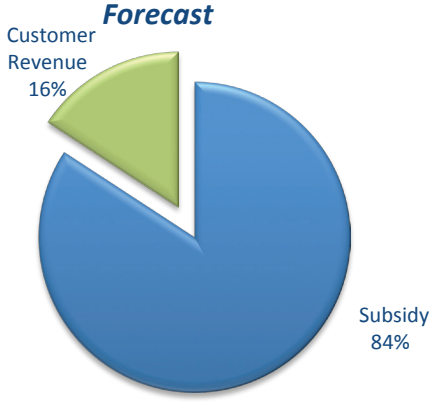
Source: Company returns, Authority estimates

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

2018 RAEC Revenue & Subsidy

Forecast



2016 Outturn & 2017 Forecast DPC Subsidy

Maximum Allowed Supply Revenue	2018 Forecast	2017 outturn	
Rial Omani	Total	Total	% Change
PC (Energy cost)	61,214,745	59,871,962	2.2%
TUoS (Transmission cost)	6,310,219	6,217,590	1.5%
DUoS (Distribution cost)	27,613,733	16,816,814	64.2%
SB (Supply cost)	4,031,877	4,594,753	-12.3%
LF (Licence fee)	99,614	86,402	15.3%
KS (Correction factor)	332,966	(2,000,832)	-116.6%
Maximum Allowed Supply Revenue	98,937,221	89,588,352	10.4%

Actual Regulated Supply Revenue			
Rial Omani	Total	Total	Variance
Approved Subsidy	39,592,519	37,458,451	6%
Permitted Tariff (& other) Revenue	54,525,928	52,458,876	4%
Actual Regulated Supply Revenue	94,118,447	89,917,327	5%

Subsidy per kWh			
(bz/kWh)	Total	Total	Variance
Economic Cost	33.3	31.4	6%
Subsidy (Estimate)	14.9	13.0	15%
Customer Revenue	18.3	18.4	0%

Source: Company returns, Authority estimates

Key:

PC means the cost of bulk supply purchaces from PWP
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SB means Supply Business costs
LF means the Supply Business Licence Fees
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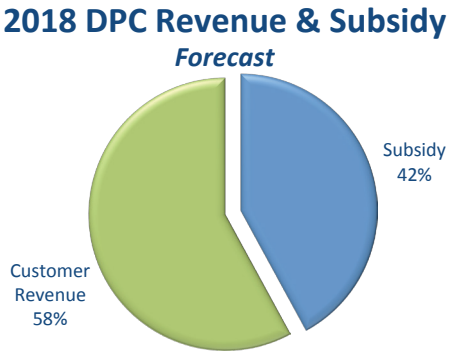

Annex E

2018 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 related water services in Oman;
- Promote competition in the electricity and related water sector;
- Secure the safe, effective and economic operation of the electricity and related 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;
- fFacilitate the privatisation of the electricity and related water sector;
- Review on an annual basis the scope for further liberalisation of the electricity and related 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 2018 Forward Work Plan, must be conducted in accordance with these statutory duties.

Consultation

The Authority consulted on the draft 2018 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 2018 Forward Work Programme

The 2018 Forward Work Programme is the thirteenth programme published by the Authority since its establishment.

All of the work items in the 2018 Forward Work Programme are in addition to work undertaken by the Authority in the normal course of business.

2018 Work Priorities

The 2018 Forward Work Programme includes a number of 'high priority' areas of work:

GP1 Electric Vehicles

The Authority intends to to carry out a review of international best practice in relation to the regulatory framework to support the introduction of Electric Vehicles (EV) in the Sultanate of Oman. The review will look into potential capital costs from development of public EV recharge stations, network and connection issues, safety issues, metering costs and the required licence and Code modifications required in relation to Distribution Network Operator responsibilities.

GP2 Development of competitive market

The Authority will work on developing an overall programme of work and timescale to progress the competitive market review (CMR) in 2018. The Authority commenced preparatory work on the development of competition amongst Licensed Suppliers in 2017 and intends to implement the recommendations in 2018. This will include engagement with key-stakeholders which will enable the Authority to develop a timescale from the introduction of competition in the supply business.

GP3 Deployment of residential PV initiative (Sahim)

The Authority launched the Sahim initiative in 2017 to facilitate the deployment of residential PV systems. In 2018, the Authority intends to build on the work undertaken in 2017 with the objective of launching a tender for an initial tranche of PV installations in residential premises. This will entail ensuring that issues such as regulatory arrangements, contractual frameworks, customer propositions, output monitoring methodology and other related issues are addressed prior to the launch of the first tranche.

GP4 Establishment of an ESCos Mark

The Authority undertook a number of government building audits in 2017. In 2018, the Authority intends to build on the work undertaken in 2017 with the objective of establishing local Energy Services Companies to support the government's energy efficiency objectives. This includes assessing best sectors in the country to target and ensure reasonable demand, and raise the capabilities of local SMEs to undertake the work of ESCos.)

GP5 Waste to Energy Initiative

The Authority, in coordination with the Oman Power and Water Procurement Company and the Oman Environmental Services Holding Company (Beah), intends to commence preparatory work to assess the possibility of procuring waste to energy projects. We intend to build on the considerable work undertaken by Beah with regards to waste to energy and establish the framework, including the project definition and competition process, to facilitate the implementation of such projects in the future.

Other areas of work planned for 2018

In addition to the 'high priority' areas of work outlined above, the Authority expects to progress other areas of work during 2018, including:

GP6 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 2018.

GP7 Protection: Appropriate Person Criteria follow-up

During 2017 the Authority conducted audit of protection capability for the companies. The audit identified two companies that have not achieved Appropriate Person Criteria. The Authority intends to monitor progress of the two companies, and once adequate progress has been to re audit their protection capability.

GP8 Health and Safety Audits of OETC, PWP and DPC

To complete the Health and Safety audit cycle, the Authority plan to perform health and safety audits of OETC, PWP and DPC in 2018. For PWP, the Authority is keen to examine in some detail how effectively the contractual arrangements facilitate adequate control of health and safety.

GP9 OETC and PWP Price Control Review

Current OETC and PWP price controls are due to expire on 31 December 2018. New price controls are therefore required to be set for 1 January 2019.

As part of the OETC price control review the Authority intends to assess options for evolving OETC's charging basis, taking into account a number of developments including: (i) the recent implementation of Cost-Reflective Tariffs; (ii) potential developments to the grid, interconnecting the MIS, Duqum, Dhofar and PDO Systems; and (iii) the introduction of an electricity spot market.

GP10 Assessment of Cost Reflective Tariffs

Following the completion of a full year from the implementation of Cost-Reflective Tariffs, the study will assess how different categories of consumers (Industrial, Government and Commercial) have responded to the new tariffs. We will also explore possible refinements to the CRT.

GP11 Cyber Security Standard

The Authority intends to audit the licensees' implementation and compliance to the SCADA and DCS cyber security standard that was issued by the Authority in 2015. The audit would review aspects related to governance of the SCADA and DCS environment including management systems and implementation of technical controls. The audit would also review the existing standard and its validity to any new cyber security attacks to the energy industry.

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