

His Majesty Sultan Qaboos bin Said

ANNUAL REPORT 2015



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### **CHAIRMAN'S FOREWORD**

On behalf of the Authority, it is with great pleasure that I present our Annual Report for 2015, a year of further strong growth in the demand for electricity and water, and corresponding increases in production to meet demand. The main highlights of 2015 are as follows:

- The number of electricity Customer accounts in the Sultanate increased by 73,245, or 7.9% 927,184
  in 2014 to 1,000,429. Residential customers accounted for 71% of the increase in accounts. Since the 2005 market restructuring the number of electricity accounts increased by 470,178 or 88.7%;
- ii. Electricity Supply in 2015 reached 28.9 TWh,14.9% higher than in 2014 and 204% higher than in 2005;
- iii. The Authority's measure of electricity Intensity (MWh per account) reached 28.9 in 2015, higher than 2014 by 6.6% and 61% higher than in 2005. Increasing intensity is an important driver of electricity demand that has implications for costs and subsidy. If the 1,000,429 registered accounts in 2015 had the same average intensity as in 2005, electricity supply in 2015 would have been 38%, or 10.96 TWh lower with corresponding reductions in costs and subsidy;
- iv. Sector gas use increased by 4.2% in 2015 to support increases in gross electricity and water production of 12.4% and 18.2%, respectively. RAEC consumed about 239,825,000 litres of diesel in 2015 to support increases in electricity and water production of 14.1% and 16.9%, respectively;
- v. Technical and non-technical losses accounted for 10.2% of total units entering electricity systems in the Sultanate in 2015, a decrease on reported losses of 11.6% in 2014. MIS losses decreased from 11.6% in 2014 to 10% in 2015, RAEC losses increased from 9.2% in 2014 to 10.7% in 2015, and Dhofar Power System losses increased slightly from 12.2% in 2014 to 12.3% in 2015;
- vi. Total electricity and water sector employment (Direct and Contractor employees) fell by 4.4% in 2015, reflecting a 2.2% increase in Direct employment (from 2,825 to 2,888) and a 7.3% decrease in Indirect employment (from 6,322 to 5,860). The 2015 overall electricity and water sector Omanisation rate was 64%;
- vii. The Authority issued no new Customer Complaint Determination in 2015, and resolved 92 outstanding complaints on the basis of policy precedents established in 69 previously issued Determinations;
- viii. In 2015 Eng Hilal Al Ghaithi, Deputy Director of Customer Affairs completed an MSc in Renewable Energy and Power Systems Management at the City University London passing with Distinction, an excellent result for which we congratulate Hilal. Also, Bushra Al Maskari, Regulatory Advisor in the Office of the Executive Director completed a MSc of Public Policy Programme at the University of Oxford passing with Merit, a result for which we offer Bushra our sincere congratulation;
- ix. In March 2015 the Council of Ministers approved the appointment of the Authority's fifth Member, Eng Saleh bin Hamood Al Rashdi;



- The electricity sector benefited from OMR 454.4 million of support from the Ministry of Finance in 2015:
  OMR 344.2 million of MIS subsidy, OMR 67.4 million of RAEC subsidy and OMR 42.8 million Rial Omani of Dhofar Power System subsidy.
- xi. Electricity licensees approved 520 electricity related projects in 2015 with a total value of OMR 335.9 million, these projects will support the provision of electricity services in all of the Sultanate's regions; and
- xii. The cost of regulating the electricity and water sector in 2015 was around OMR 3.2 per Customer account, around one tenth of one baiza per kWh Supplied and less than 0.25% of total electricity and water sector turnover, metrics we believe compare favourably to international benchmarks of regulatory costs.

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

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



### **Electricity and Water Sector Market Structure**

1. Main Intercon	nected System		
Wadi Al Jizzi PC SAOC.	325 netMW		
Al Ghubrah P&DC SAOC.	430 netMW 37 MIGD		
Al Rusail PC SAOG.			Muscat Electricity Distribution Company SAOC
UPC (Manah) SAOG.			
Al Kamil PC SAOG.		Oman Power & Water Procurement	2015 Supply: 10,104 GWh Accounts: 309,803
ACWA P&DC SAOG.	435 netMW 30 MIGD	Company SAOC	
	585 netMW 33 MIGD		Majan Electricity Company SAOC
SMN Barka P&DC SAOG.	677 netMW 26 MIGD		2015 Supply: 7,858 GWh Accounts: 198,005
Al Batinah PC SAOG.			ACCOUNIS: 198,005
Al Sawadi PC SAOG.		Oman Electricity Transmission Company SAOC	Mazoon Electricity Company
Phoenix PC SAOG.	2000 netMW		SAOC
Muscat DC SAOG.	42 MIGD		2015 Supply: 7,550 GWh Accounts: 366,716
Qurayyat DC SAOC. 2017	44 MIGD		
Barka IWP 2018	61.8 MIGD		
Sohar IWP 2018	55 MIGD		

### 2. Rural Systems

Transmission	Distribution & Supply 2015 Supply 816 GWh Accounts: 33,187
Oman Power & Water	Dhafar Dawar Campany 6400
Procurement Company	Dhofar Power Company SAOC
JAUC	2015 Supply: 2,583 GWh
Oman Electricity	Accounts: 92,718
	Oman Power & Water Procurement Company SAOC

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: 2014 and 2015

The number of registered electricity customer accounts in the Sultanate increased by 7.9% in 2015 from 927,184 in 2014 to 1,000,429. The MIS accounted for 85.2% of the increase in accounts, same as reported in 2014 (85.2% in 2014), RAEC accounted for 3.1% of the increase (3.9% in 2014) and DPC for 11.7% of the increase (10.7% in 2014). Please refer to Figure 1 below and Table 1 of Annex C for further details.



### Figure 1: Registered Customer Accounts by Company: 2014 & 2015

	Muscat	Majan	Mazoon	MIS	RAEC	DPC	Oman
2014 Accounts	284,625	186,605	340,923	812,153	30,904	84,127	927,184
2015 Accounts	309,803	198,005	366,716	874,524	33,187	92,718	1,000,429
net change in Accounts	25,178	11,400	25,793	62,371	2,283	8,591	73,245
% change in Accounts	8.8%	6.1%	7.6%	7.7%	7.4%	10.2%	7.9%

Source: Company returns

For the Sultanate as a whole, Residential customers accounted for 71.0% of the 73,245 increase in accounts and Commercial customers for 25.5% of the increase.

Residential customers accounted for 74.8% of all customer accounts in 2015.

### Electricity Supply: 2014 and 2015

Total electricity supply in the Sultanate increased by 3.7 TWh in 2015 from 25.2 TWh in 2014 to 28.9 TWh, an increase of 14.9% following the 10.4% increase in 2014. MIS supply increased by 15.5% (or 3.4 TWh) in 2015, accounting for 91.3% of the total (3.7 TWh) growth in supply. RAEC supply was 9.3% higher than in 2014, reflecting strong growth in supply to Residential, Industrial and Commercial customers. DPC supply growth of 11.0% in 2015 was higher than the 9.8% increase in 2014. See Figure 2 below and Table 2 of Annex C for further details.





Figure 2: Electricity Supply by Company: 2014 & 2015

Residential customers accounted for 47.6% of total supply in 2015, compared to a 55.2% share in 2005.

Figure 3 compares the 2015 increases in accounts and supply by customer category. Residential customers accounted for 71.0% of the 73,245 increase in accounts, but for just 48.1% of the 3.7 TWh increase in Supply. Commercial customers accounted for 25.5% of the accounts increase and for 19.7% of the Supply increase. Industrial customers accounted for 14.3% of the increase in Supply while the number of Industrial accounts slightly reduced.



### Figure 3: 2015 Increases in Accounts & Supply by Customer Category

Source: Company returns

The structure of electricity demand in Oman continues to change as the rate of growth in supply to Industrial and Commercial customers exceeds that to other customer categories. Industrial and Commercial customers accounted for 36.2% of total supply in 2015, up from 23% in 2005. Supply to Majan's Commercial and Industrial customers accounted for 55% of Majan's total 2015 supply, compared to just 21% in 2005, 40% in 2010, and 50% in 2011.

Figure 4 presents electricity Supply by tariff category for each of the three market segments in 2014 and 2015.

Figure 5 presents registered customer accounts by tariff catergory & Systerm in 2014 and 2015.

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### Figure 4: Electricity Supply by Tariff Category & System - 2014 & 2015

	Main Inter	Main Interconnected System	E	RAECI	RAEC Rural Systems		Dhofar I	Power System	
Category	2014 MWh	2015 MWh	% Change	2014 MWh	2015 MWh	% Change	2014 MWh	2015 MWh	% Change
Residential	10,697,579	12,339,571		342,148	401,818		919,557	1,015,575	
Industrial	3,641,101	4,176,110		37,989	44,469		509,739	502,840	
Commercial	4,449,640	5,092,048		117,944	125,672		431,245	518,219	
<b>Agriculture &amp; Fisheries</b>	303,406	340,845		26,191	29,849		9,458	9,095	
Hotels / Tourism	25,981	28,872	11%	23,028	29,378		2,124	2,371	
Government	2,777,264	3,326,616		168,156	155,883		346,846	418,792	
<b>Ministry of Defence</b>	202,731	208,548		31,663	29,352		108,302	116,550	8%
Totals	22,097,701	25,512,611	15%	747,119	816,420	<b>0</b> %6	2,327,270	2,583,442	11%





## Figure 5: Registered Customer Accounts by Tariff Category & System - 2014 & 2015

	Main Intercor	connected System	E	RAEC	<b>RAEC Rural Systems</b>		Dhofar	Dhofar Power System	
	2014	2015	%	2014	2015	%	2014	2015	%
category	Accounts	Accounts	Change	Accounts	Accounts	Change	Accounts	Accounts	Change
Residential	610,380	654,118	7%	21,688	23,134	7%	63,750	70,584	
Industrial	822	820	%0	44		14%	71		
Commercial	163,429	180,206	10%	5,651	6,119	8%	15,101	16,549	
<b>Agriculture &amp; Fisheries</b>	7,053	7,517	7%	336		17%	101		
Hotels / Tourism	463	496	7%	63	64	2%	84	84	%0
Government	29,784	31,144	5%	3,047		9%6	4,910	5,231	
<b>Ministry of Defence</b>	222	223	0%0	75	104	39%	110	109	-1%
Totals	22,097,701	25,512,611	15%	30,904	33,187	7%	2,327,270	2,583,442	11%





### Electricity Supply per Account: 2014 & 2015

Electricity intensity (MWh per account) increased by 6.6% in 2015, from 27.1 in 2014 to 28.9 MWh per account. Customers of electricity suppliers in the Sultanate registered increased electricity intensity in 2015: MIS customers registered a 7.2% increase, RAEC customers a 1.8% increase and DPC customers a 0.7% increase. Please refer to Figure 6 and Table 3 of Annex C for further details.



### Figure 6: MWh Supplied per Registered Account: 2014 & 2015

	Muscat	Majan	Mazoon	MIS	RAEC	DPC	Oman
2014 MWh Supply/per Acct	30.5	35.9	19.7	27.2	24.2	27.7	27.1
2015 MWh Supply/per Acct	32.6	39.7	20.6	29.2	24.6	27.9	28.9
net change MWh S/per Acct	2.1	3.8	0.9	2.0	0.4	0.2	1.8
% change in MWh S/per Acct	6.8%	10.5%	4.7%	7.2%	1.8%	0.7%	6.4%

Source: Company returns

The increase in electricity intensity, reflects continued strong growth in Supply to Industrial, Commercial and Government customers in 2015. Electricity intensity is an increasingly important driver of electricity demand. Figure 7 shows that between 2005 and 2015 the average electricity intensity of all customers increased by 61% with significant variation in intensity changes across customer categories.

### Figure 7: Changes in Electricity Intensity between 2005 and 2015

MWh/Account	2005	2015	% change	
Residential	12.8	18.4	44%	44%
Industrial	1,561.5	5,089.9	226%	226%
Commercial	17.2	28.3	64%	64%
Agriculture & Fisheries	41.4	47.4	14%	14%
Government & MOD	75.5	106.0	<b>40</b> %	40%
All Categories	17.9	28.9	<b>61%</b>	61%

The 226% 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 7 than Residential and Commercial customers, whose intensity in 2015 was 44% and 64% higher, respectively, than in 2005 and who accounted for 67.4% of total 2015 Supply, compared to the 16.3% share of Industrial customers.

Increasing intensity is an important driver of electricity demand that has implications for costs and subsidy. If the 1,000,429 registered accounts in 2015 had the same average intensity as in 2005, electricity supply in 2015 would have been 38% or 10.96 TWh lower with corresponding reductions in costs and subsidy.

The Authority does not consider intensity increases of this magnitude to be sustainable and continues to believe that the 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: 2014 & 2015

2015 gross electricity production of 32.7 TWh was 12.4% higher than in 2014. The 32.1 TWh of net electricity generation (including PWP and RAEC purchases) was 13.2% higher than in 2014. Both, gross and net water production increased by 18.2% and 18.5% (to 249.53 million m<sup>3</sup> and 246.3 million m<sup>3</sup> respectively). Please refer to Figure 8 and Table 6 of Annex C for further details.

### Figure 8: Electricity & Water Production by System & Zones: 2014 & 2015



### % Changes in production: 2014 to 2015

		Electricity G	Wh	%	Water '000 n	13	%
System	Item	2014	2015	chng	2014	2015	chng
MIS / ISZ	Gross production	25,544.2	28,772.3	12.6%	184,975.3	224,926.7	21.6%
	Net production	24,993.1	28,333.6	13.4%	181,973.3	221,891.7	21.9%
Rural Systems / Rural Zones	Gross production	756.7	863.1	14.1%	2,397.5	2,801.6	16.9%
	Net production	698.1	807.0	15.6%	2,236.6	2,627.2	17.5%
Dhofar System / Dhofar Zones	Gross production	2,836.2	3,122.6	10.1%	23,652.7	21,804.0	-7.8%
	Net production	2,651.7	2,941.7	10.9%	23,652.7	21,804.0	-7.8%
Total Oman	Gross production	29,137.1	32,758.0	12.4%	211,025.5	249,532.3	18.2%
	Net production	28,342.9	32,082.3	13.2%	207,862.6	246,322.8	18.5%

Source: Company returns

MIS gross generation was 12.6% higher in 2015 than in 2014, RAEC generation was 14.1% higher and generation for the Dhofar Power System was 10.1% higher. The net desalinated water production in the Interconnected and Sharqiyah Zones (ISZ) increased by 21.9% in 2015 which accounted for 90% of the 2015 increase in total Water production in 2015. Net water production in the Rural Zones increased by 17.5% increase from 2014. Alternate (the net production of the Dhofar Zone decreased by 7.8% in 2015 than in 2014, which accounted for 8.9% of the 2015 increase in total water production in Oman).



### EWS Fuel Use in 2015

### **Natural Gas**

The electricity and water sector consumed 4.2% more gas in 2015 than in 2014, compared to an increase of 12.4% and 18.2% in electricity and water production, respectively, please refer to Figure 9. The specific gas consumption of MIS connected facilities fell to 256 Sm3/MWh in 2015 from 278 Sm3/MWh in 2014 (a 7.9% reduction), and is 28% lower than in 2005.



### Figure 9: Gas Consumption at Major Production Facilities: 2014 & 2015

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

### EWS Activity by Region: 2015

While all regions of Oman benefitted from electricity and water sector activity in 2015, activity is heavily concentrated in Muscat, North Batinah and South Batinah. These three areas accounted for 69% of 2015 electricity production, 79% of water production, 67% of supply, 56% of customer accounts and 54% of sector related employment in 2015.

Figure 10 presents details of the regional distribution of electricity and water sector activities in 2015.



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# Figure 10: EWS Activity by Region (Production, Supply, Accounts, Intensity & Employment): 2015

	Electricity Production	oduction	Water Production	uction	Electricity Supply & Accounts	V & Accounts		Employment
Regions	MWh Gross	MWh Net	m3 Gross	m3 Net	MWh Supplied	Accounts	MWh per Account	Direct + Contractors
Al Dahirah	1,282	1,246			919,935	47,028	19.6	459
Al Sharqia	4,975,613	4,968,603	27,519,744	27,462,520	2,277,169	131,345	17.3	885
AI Wusta	296,646	280,177	2,696,472	2,523,574	322,805	13,635	23.7	617
Al Burami					742,107	33,777	22.0	249
AI Dakhliyah	1,303,166	1,293,871			2,081,034	106,249	19.6	537
Dhofar	3,329,614	3,140,597	21,838,044	21,837,641	2,764,469	99,004	27.9	819
Musandam	358,212	343,270	71,040	69,938	312,589	13,266	23.6	461
Muscat	5,633,161	5,439,879	54,545,368	53,754,075	10,103,710	309,803	32.6	2,872
North Batinah	8,261,631	8,562,036	49,711,949	47,787,492	6,196,418	117,200	52.9	1,168
South Batinah	8,598,695	8,052,598	93,149,649	92,887,577	3,192,238	129,122	24.7	681
Totals	32,758,020	32,082,276	249,532,266	246,322,817	28,912,474	1,000,429	28.9	8,748





### System Losses

Outturn 2015 data of units supplied and units entering electricity systems imply that MIS losses, which accounts for approximately 90% of the total share of electricity supply in Oman, decreased from 11.6% in 2014 to 10.0% in 2015, RAEC losses increased from 9.2% in 2014 to 10.7% in 2015, and Dhofar Power System losses increased slightly from 12.2% in 2014 to 12.3% in 2015.

Figure 11 shows annual MIS losses reductions since 2005.



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

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

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

Losses reductions are of considerable economic value in terms of achieved and future cost savings. If the cost saving of a 1 MWh reduction in losses is OMR 10, the reduction in MIS losses from 11.6% in 2014 to 10.0% in 2015 returned benefits of around OMR 4 million (the benefit is OMR 41.2 million if assessed against 2004 losses of 24.6%). The cumulative value of MIS losses reductions since 2004 is a little under OMR 26 million, and in present value terms the benefit of MIS losses reductions in 2015 is around OMR 72 million, using a discount rate of 6% (OMR 687 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.



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### System Peak Demands: MIS and Dhofar Power System in 2014 and 2015

Figure 12 presents monthly MIS peak demands in 2014 and 2015.



	2014 Peak MW	2015 Peak MW	% change	times of 2015 Peak MW
Jan	2,338	2,682	15%	24
Feb	2,290	3,022	32%	31
Mar	2,744	3,707	35%	30
Apr	4,191	4,722	13%	37
May	5,079	5,534	9%	44
Jun	5,269	5,618	7%	40
Jul	4,980	5,744	15%	46
Aug	4,871	5,448	12%	37
Sep	4,835	5,603	16%	36
Oct	4,101	4,681	14%	36
Nov	3,357	3,879	16%	29
Dec	2,602	2,946	13%	26
Max MW	5,269	5,744	9%	

Figure 13 presents Dhofar Power System monthly peak demands in 2014 and 2015.

### Figure 13: Dhofar Power System Peak Demand - 2014 & 2015



	2014 Peak MW	2015 Peak MW	% change	Temp oC at times of 2015 Peak MW
Jan	268	300	12%	24
Feb	283	313	11%	25
Mar	357	397	11%	22
Apr	406	443	9%	28
May	434	495	14%	30
Jun	439	493	12%	31
Jul	394	440	12%	28
Aug	395	427	8%	27
Sep	403	449	11%	28
Oct	396	449	13%	27
Nov	380	420	10%	28
Dec	329	361	10%	27
Max MW	439	495	13%	



### **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 10, for the period 2016 to 2022) 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 8% per year to reach 9,529 MW in 2022 which is lower than the previous forecast. The "low case" projects 6% annual growth, resulting in peak demand of 8,266 MW in 2022, the "high case" projects 10% annual growth and peak demand at 11,036 MW in 2022, about 1,500 MW higher than the central case. In terms of energy, the expected, low and high case forecasts for 2022 are 50 TWh, 42 TWh
- Dhofar System: in the expected case peak demand is expected to grow at 9% per year, reaching 884 MW in 2022. The "low case" projects 6% annual growth, reaching 758 MW by 2022. The "high case" allows for more rapid industrialization, and has peak demand increasing at 12% per year to reach 1,089 MW in 2022. Iln terms of energy, the expected, low and high case forecasts for 2022 are 5.5 TWh, 4.4

Please refer to Issue 10 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 forecasted demand for electricity and water.

### **Approved Projects and Capital Expenditure: 2015**

and 60 TWh respectively; and

TWh and 7.1 TWh respectively.

Licensed system operators (OETC, MEDC, Majan, Mazoon, RAEC and DPC) approved 520 projects in 2015, with a total value of OMR 335.9 million. Table 1 presents details of the approved projects by Licensee, region and value.

				Company					
Region		OETC*	Muscat	Majan	Mazoon	RAEC	DPC	Totals	% Total
Al Dahirah	RO	24,494,343		10,698,530				35,192,873	10.5%
Al Sharqiya	RO	8,715,000			4,410,312	7,997,166		21,122,478	6.3%
Al Wusta	RO					1,768,096		1,768,096	0.5%
Dakhiliya	RO	58,892,266			5,772,697	107,786		64,772,749	19.3%
Dhofar	RO	31,143,067				3,835,309	21,208,994	56,187,370	16.7%
Musandam	RO					4,586,619		4,586,619	1.4%
Muscat	RO	39,051,333	24,762,202			779,764		64,593,298	19.2%
North Batinah	RO	15,488,962		21,695,632	535,216			37,719,810	11.2%
South Batinah	RO	34,694,304			6,524,107			41,218,411	12.3%
Al Buraimi	RO			5,380,773				5,380,773	1.6%
Other**	RO			2,747,238		622,507		3,369,744	1.0%
							•	•	
Total Value		212,479,274	24,762,202	40,522,172	17,242,333	19,697,246	21,208,994	335,912,221	
% of Total		63.3%	7.4%	12.1%	5.1%	5.9%	6.3%		
Number of Project	s	18	24	190	19	39	230	520	

### Table 1: Project Approvals by Licensees in 2015

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 63.3% of approved projects by value, which reflects the significant investment made to connect and transport electricity from production facilities. Majan accounts for 12.1% of projects value, MEDC 7.4%, DPC 6.3%, RAEC 5.9% and Mazoon 5.1%.

In terms of regional investment, Dakhiliya region accounts for 19.3% (OMR 64.7 million) of approved projects and Muscat 19.2% (OMR 64.5 million) due to significant network investments by OETC, MEDC and Mazoon in these regions.

All regions benefited from EWS investment in 2015 in line with the government's policy commitment to provide electricity and water services throughout the Sultanate.

### EWS Employment & Omanisation: 2014 and 2015

The Authority undertakes an annual survey of electricity and water 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 2015 survey.

			2014			2015	
Туре	Function	Omani	Expatriate	Total	Omani	Expatriate	Total
Direct	Admin & Supervisory	882	80	962	998	76	1,074
	Managerial	196	56	252	220	60	280
	Operations	217	39	256	264	38	302
	Technical	1,097	104	1,201	969	94	1,063
	Others	142	12	154	154	15	169
Direct Total		2,534	291	2,825	2,605	283	2,888
Contractor	Admin & Supervisory	215	197	412	248	162	410
	Managerial	129	111	240	89	89	178
	Operations	505	706	1,211	732	462	1,194
	Technical	457	1,425	1,882	593	1,294	1,887
	Others	1,468	1,109	2,577	1,303	888	2,191
Contractor 1	lotal	2,774	3,548	6,322	2,965	2,895	5,860
Total Emplo	yment	5,308	3,839	9,147	5,570	3,178	8,748
% Change from 2014					4.9%	-17.2%	-4.4%

### Table 2: Total EWS Employment by Type, Nationality and Function: 2014 & 2015

Source: Authority 2015 employment survey

2015 Direct employment was 2.2% higher than in 2014. Indirect employment in 2015 (5,860) was 7.3% lower than the previous year and reflects the reduction of 653 Expatriate contractors.

Since 2005, total (Direct and Indirect) employment has increased by 82% from 4,796 to 8,748 in 2015. Direct employment accounts for 46% of this increase, with Omani nationals accounting for 90% of the increase in Direct employment.

Figure 14 presents the 2015 Omanisation rates for Direct and Indirect employment.



### Figure 14: EWS Employment & Omanisation: 2015



Source: Authority 2015 employment survey

Omani nationals accounted for 90% of Direct employment in 2015 and for 51% of Indirect employment, contributing to a sector Omanisation rate of 64%. The Authority's annual employment survey highlights changes in the underlying composition of electricity and water sector employment; these are shown in figure 15.

### Figure 15: Employment & Omanisation by Activity: 2015



The increase in 2015 EWS employment shown in Figure 15 reflects the continuing employment needs of a sector that is working hard to keep pace with strong electricity demand growth. Licensees have a responsibility to ensure that the new recruits have the training and guidance needed to increase their productivity and thereby help moderate future increases in electricity sector costs.



### Electricity & Water Sector Issues in 2015

### **Fatal Accidents**

Regrettably, the electricity sector again witnessed a number of fatal accidents in 2015. The high number of deaths remains a concern for the Authority, both for people working in the electricity sector and those who come into contact with utility assets. The Authority is continuing its efforts to increase awareness of the importance of health and safety to both licensees and contractors in order to minimise the number of accidents that occur, and to reduce the seriousness of any accident that does occur. The Authority conducted a number of formal Health and Safety Audits of Licensees and continues to conduct spot audits. It has to be noted that the records below represent only the accidents that were reported to the Authority. Specifically, accidents of electrocution to the general public are brought to the knowledge of the Authority by the ROP or the Public Prosecution Office.

### Table 3: Summary of Fatal Incident Investigations by the Authority - 2015

Date	Location	Licensee	Incident
9 March 2015	Al Kamil	Mazoon	Lineman suffered burns from arc-flash. Succumbed to injuries in hospital on 1 April.
24 March 2015	Musandam	RAEC	Lineman fell from tower under construction
16 June 2015	Musanah	Mazoon	Farmworker electrocuted (customer wiring)
21 June 2015	Tadhoo, Dhofar	RAEC	Two operations contractors killed in a vehicle accident
26 August 2015	Heel	Mazoon	Lineman sustained fatal injuries whilst seeking shelter from a sudden storm
14 November 2015	Bahla	Mazoon	Child electrocuted in a farm (customer wiring)

### Professional Development of Authority Staff

The Authority is committed to the professional development of Omani staff. In 2015:

- (i) Eng. Hilal Al Ghaithi completed a MSc course in Renewable Energy and Power Systems Management at the City University in London passing with Distinction;
- (ii) Bushra Al Maskari completed a MSc of Public Policy Programme at the Blavatnik School of Government at the University of Oxford passing with Merit; and
- (iii) Nahrain Al Kharousi successfully completed the Global Remuneration Professional Certification programme (GRP)

### **Customer Awareness Programmes**

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

A total of 10 meetings were held during 2015, with a focus on bilateral meetings with smaller community based organisations that tend to have a lower level of awareness. These meetings 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 local distribution and supply licensees and their meter reading, billing and collection contractors (OIFC and ONEC). In addition to awareness raising seminars and events, the Authority continued its efforts to produce customer friendly printed materials that explain



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customers' rights and responsibilities. During 2015 the Authority published a "Guide to Determinations" as the third in our series of customer guides entitled "How can we help you;" It describes the legal determinations of customer disputes made by the Authority since its establishment in 2005.

### Cyber Security Regulation

In February 2015 the Authority consulted with all licensees on the introduction of Cyber Security Standards. Following receipt of feedback, the Authority proposed a modification to Licences to enable the implementation of these new Standards by introducing a new license condition related to Cyber Security. The modification came into effect on 1 January 2016.

### **Customer Related KPIs**

The Authority concluded during 2015 that although good progress was being made, especially in relation to the timescale during which complaints are processed, more needed to be done to ensure that the reporting process is sufficiently robust, especially in relation to reported meter reading performance, the application of the Late Payment Code of Practice and the speed at which new customers are connected to the network. Care also needed to be taken to improve the quality as well as the speed of complaint handling performance and actions have been agreed with Distribution and Supply Licensees to that effect.

As a result of that assessment, the Authority invited consultants to indicate their interest in conducting, in 2016, a more detailed review of licensees' customer services performance and of their information and performance reporting processes, taking into account the Authority's initial assessment. The results will be shared with Distribution and Supply Licensees and Action Plans developed to enhance compliance with the regulatory framework and the quality of performance reporting data.

### Joining ERRA

In April 2015 the Authority was invited to join the Energy Regulators Regional Association (ERRA). The ERRA offers the Authority the opportunity to interact with other energy regulators, exchange experience and views, make use of energy related information and data and benefit from specialised training courses on regulations. The Authority officially joined the ERRA in June 2015

### Health and Safety Audit of MEDC and RAEC, plus follow-up of audits of other licensees

In 2015 the Authority conducted Health and Safety audits of RAEC and MEDC that sought to review both the progress that had been made since similar audits in 2009 and to confirm compliance with the health and safety requirements of their licence. Whilst the recent audits were able to demonstrate that significant improvements had been made by both licensees, including strong commitment from the board and executive management, the audits identified some worrying failures that resulted in routine contravention of the company safety rules and non-compliance with Omani Occupational Health and Safety requirement. The Authority is following the progress made by each company in implementing the audit recommendations on monthly basis.

Furthermore, the Authority followed the implementation of 2014 audit recommendations for Dhofar Power Company, Oman Electricity Transmission Company, and Oman Power and Water Procurement Company. This process is continuing in 2016.

During 2015, the continued efforts were extended with the remaining licensed production facilities who had not completed all corrective actions from the 2012/13 audits, and during the year the Authority was pleased to note that all actions had been completed and that there had been a substantive improvement in safety and safety management.



### The development of the Licensing framework for Desalination Facilities of Special Nature

Following the modification of the Sector Law by Royal Decree 47/2013, the Authority became responsible for the regulation of Desalination Facilities of Special Nature (Independent Water Project procured by PWP based on request from PAEW pursuant to the provisions of the Sector Law). The Authority prepared the regulatory framework for the regulated activity of Water Desalination from a Desalination Facility of a Special Nature. The Desalination Licence of Special Nature was finalised and two Licences are expected to be granted in 2016.

### The grant of the first Licence for Electricity Generation from renewable energy

In order to facilitate and promote the use of renewable energy, the Authority undertook a number of initiatives to ensure the current regulatory framework enables the deployment of renewable energy projects. To this effect, the Authority developed a Generation Licence for electricity Generation from renewable energy resources. The Licence was structured considering the technical characteristics of renewable energy resources and contains similar conditions and requirements when compared to the standard generation Licences while placing lower regulatory (and financial) burden on such licensees due to the relative size of the current project. The Authority continues to work towards facilitating the utilisation of renewable energy resources in Oman.

### Safety of Electrical Wiring in Homes and in Public Areas

The Authority continued its effort to ensure compliance with the Oman Regulations for Electrical Installations (OES4) which sets the basic requirements for safe electrical wiring. Sadly, in 2015 there were deaths due to unsafe electrical wiring, deaths that would have been prevented had the installations complied with OES4. The Authority has increased its efforts to make the public aware of the importance of ensuring that the electrical wiring within their properties are safe, that protective devices like ELCBs/RCBs work correctly, and to forbid any illegal electrical connections to other properties. Similar efforts are also being taken with the owners of electrical installations in public places, such as street lights, shopping malls etc.

### **Rusail investigation**

On 7 May 2015, a flashover on a 33kV circuit breaker at Rusail Grid led to a significant blackout that affected over 800 customers, including Sultan Qaboos University campus, a hospital, Knowledge Oasis Muscat, industrial and residential customers, with a loss of 73MW for around 13 hours. The Authority commissioned an independent investigation of both the root causes of the blackout and the manner in which supplies were restored. The restoration was delayed by problems of the concerned licensee's making and by a second flashover at Rusail. This incident highlighted some serious technical and customer service failings in the concerned licensees that need to be addressed as a matter of urgency by the business. The Authority's final report was published in June 2015, and the concerned licensee has been required to report on progress made in implementing the recommendations on a monthly basis.



### Regulatory Focus #1 Economic Costs of Supply

The electricity sector in the Sultanate continues to experience considerable growth in demand on an annual basis. Higher demand has increased the amount of investments and quantities of fuel needed to ensure future demand for electricity can be supplied in a secure and reliable manner. As the electricity sector absorbs more financial and natural resources the Authority works to ensure electricity is produced, transmitted and distributed efficiently.

Figure 16 shows the movement in cost per kWh supplied in the Main Interconnected System from 2005 to 2015 (in both nominal and real terms):



### Figure 16: Economic Cost of Electricity Supply

Figure 16 shows that the cost per unit supplied, when accounting for inflation, reduced by 28% from 2006 to 2014.

### Impact of 2015 Gas Price Increase

In January 2015 the price of gas sold to electricity generation plants increased from \$1.5/mmbtu to \$3/mmbtu. The increase in the price of gas doubled the fuel cost for power generation in the MIS, which had a significant impact on the 2015 cost of supply, as shown in Figure 17. The following figure presents a breakdown of overall costs (in real terms), and shows that in 2015 the largest increase was in generation costs:







Figure 17: Breakdown of Economic Costs

Generation costs are an outcome of a competitive process for procuring I(W)PP capacities from private developers. The competition has enabled the adoption of more efficient technologies, particularly in the use of gas, that has contributed to the reduction in generation costs per unit. Electricity generated in 2015 only required 256 Sm3 to generate every MWh as opposed to 412 Sm3/MWh in 2006. Please see Figure 18.



### Figure 18: Improvements in Gas Efficiency

Transmission, distribution and supply costs were impacted by several government policies over the years that directly applied an upword pressure on costs. In 2009 the government issued an undergrounding policy for electric cables in several regions around the Sultanate. Employment policies include Omanisation, Omani content, a mandatory employment of 500 Omanis in 2011, and a rise in minimum wages in 2012. The sector managed to comply with these policies while reducing the unit costs by over 20% in the past decade:





### Figure 19: Government Policies' impacts on electricity costs

The reduction in costs is a reflection of the strong regulatory regime adopted by the Authority which ensures the implementation of effective price controls with important efficiency targets. The Authority applies rigorous price controls that ensure statutory monopolies only recover the efficient costs of conducting their regulatory activities. The Authority also sets an annual losses target and is pleased to report that sustained efforts by licensees have led to a significant reduction in technical and non-technical losses.



### Figure 20: Impact of Economic Regulation

To conclude, the sector was able to consistently reduce unit costs of supply. New, more efficient generation technologies coupled with price control mechanisms introduced by the Authority following sector restructuring in 2005 have provided electricity sector companies with strong incentives to produce, transmit and distribute electricity efficiently, whilst meeting the significant growth in electricity demand over the same period.



### Regulatory Focus # 2 OETC Spinning Reserve Performance Improvement Incentive Mechanism

In 2013 the Authority reviewed OETC's scheduling and dispatch processes, which identified a tendency for OETC to over-provide spinning reserve generation on the system. This increased the amount of generation capacity connected to the system (with possible cost and gas consumption implications) with little if any material counterbalancing benefits in terms of security of supply.

Rules for establishing and reporting OETC's Operating Margin Policy are set out in OC3 of the Grid Code. OETC was not compliant with aspects of OC3. The Authority was concerned that practices that OETC had adopted may have been detrimental to efficient scheduling and dispatch. The Authority introduced a performance improvement incentive mechanism in OETC's price control period 3 to reduce the spinning reserve generation to acceptable levels.

### **Description of the Incentive Mechanism**

OETC were provided an incentive to control the spinning reserve within a reasonable band of the target level. When spinning reserve was either excessively high or excessively low a penalty was applied, whereas when the spinning reserve was within the target band OETC were rewarded. The Authority set an overall cap on penalties or rewards at a value equivalent to 2% of OETC's annual Maximum Allowed Revenue.

### **Response to the Incentive Mechanism**

The incentive mechanism was formulated based on the information obtained from the OETC dispatch performance in 2011 and formally introduced in the OETC price control period 3 from 2013-2015. The incentive mechanism started in a shadow mode in 2013 and became effective starting 2014. The introduction of this mechanism resulted in improving the performance by the OETC dispatchers and helped significantly reduce the unnecessarily high levels of spinning reserve that were being carried by the system resulting in monotary savings and improving the efficiency of Gas consumption. Figure 21, shows the full year duration curve of spinning reserve levels for the years 2011 and 2015.



### Figure 21: 2011 vs 2015 Spinning Reserve Duration Curve

<sup>2011</sup> vs 2015 Spinning Reserve Duration Curve (before & after Incintive Mechanism)



The green area shows the acceptable spinning reserve levels where OETC would be eligible to a reward, and the red area shows the excessive very high or very low level of spinning reserve which would be subject to penalty in the incentive mechanism. The curves show the improved performance between the years 2011, which was the base case used to introduce the incentive mechanism, and the 2015 performance. In 2011 OETC maintained excessive higher levels of spinning reserves for around 7500 hours (around 86 % of the time). By 2015 the number of hours of acceptable spinning reserve levels increased by around 6 times to reach more than 6100 hours (more than 70% of the time). Figure 22 & 23 show this change.



### Figure 22 & 23: Number of hours in each range 2011 & 2015

The impact of this improvement is noticeable on the level of energy that was being carried for the security of the system which was above the requirement. In 2011 the level of spinning reserve energy in actual TWh was 137% above the maximum acceptable spinning reserve higher limit as set out in the incentive mechanism (125% of the target level). This was going in an upward trend and reached more than 162% in 2012. The mechanism started in a shadow mode in 2013 and became fully effective in 2014 and 2015 resulting in a dramatic decrease in the level of spinning reserve energy. OETC dispatchers maintained the yearly spinning reserve energy below the maximum limit of the acceptable spinning reserve margin. The total energy of the spinning reserve carried in the system was around 90% and 93% of the maximum acceptable limit in 2014 and 2015 respectively. This is shown in Figure 24.



### Figure 24: Actual Spinning Reserve as a % of the max acceptable higher limit



To quantify this improvement in performance Figure 25 shows that if the level of inefficient dispatch of spinning reserve that was recorded in 2012 had continued at the same level up to 2015, it would have led to a dispatch of more than 6.68 TWh of energy in 2015 compared to the achieved 3.8 TWh. This translated in efficiency gains or saving of approximately 3.0 TWh in 2014 and around 2.9 TWh of electrical energy in 2015. The associated efficiency gains are approximated around OMR 5.3 and 5 million respectively at a spinning reserve valued at 1.8 Rials/MWh<sup>1</sup>.



### Figure 25: Actual spinning reserve energy in TWh (normalized to a target of 375 MW in each hour)

\* Up to 2013 the level of target spinning reserve required by the system at each hour was 220 MW. Due to the changes introduced by the Sur power station and the growth of the transmission system, the target spinning reserve was increased to 375 MW starting 2014.

<sup>&</sup>lt;sup>1</sup> There is no quantified cost for spinning reserve in Oman. This value is based on an assumed cost of 20% of the average variable MWh cost in 2015.



### **ARTICLE (29) REPORTING**

### **Further Market Liberalisation**

Table 4 presents the Authority's assessment of the possible implementation of the four Liberalisation measures identified in the Sector Law.

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. However, work is underway 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 2018.
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 opted not to own any assets in Oman and therefore will not be licensed to import or export electricity. While no further action is contemplated to promote this liberalisation measure in the medium term as previously stated by the Authority, discussions continue with the GCCIA on facilitating trade across the GCCIA interconnector. PWP currently exchanges power with the UAE through the Bilateral Interconnection. The Authority expects the Access Conditions to the GCC Interconnection to be finalised in 2016 which will allow for power exchanges through the GCC Interconnection.
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 the government. Having progressed the small scale implementation of AMR for the largest 8,000-10,000 customers, the Authority intends to undertake preparatory work during 2017 to facilitate the introduction of competition amongst Licensed Suppliers. The Authority remains confident that the introduction of competition will elevate the level of service provided by Licensed Suppliers to their customers.

### **Table 4: Further Market Liberalisation**



### **Electricity Subsidy**

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

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

### MIS Subsidy in 2015

Outturn MIS Subsidy in 2015 was OMR 344.2 million. This reflects total economic costs of OMR 743.2 million and customer revenues of OMR 399.0 million. Figure 26 presents outturn MIS Subsidy in 2015 by company.



Figure 26: 2015 MIS Outturn Subsidy by Company

Source: 2015 audited SCRC Statements & Authority calculations

2015 MIS Subsidy accounted for 46% of the total economic cost of supply (OMR 743.2 million), the remaining 54% of costs was recovered through customer revenue.

MEDC, Majan and Mazoon accounted for 31%, 28% and 41%, respectively, of total 2015 MIS Subsidy. MEDC's 2015 Subsidy of OMR 108.1 million accounted for 39% of its total economic cost requirements, while Subsidy to Majan and Mazoon (OMR 95.3 million and OMR 140.8 million respectively) constituted 45% and 56% of their respective 2015 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 2015 MIS outturn Subsidy.

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### 2016 MIS Subsidy Forecast

The Authority's estimate of 2016 MIS Subsidy is OMR 384.8 million. This reflects total estimated economic costs of OMR 822.6 million of which 53% (or OMR 437.8 million) is expected to be recovered through customer revenues.

Figure 27 presents the Authority estimates of 2016 MIS Subsidy by company.



### Figure 27: Subsidy Forecast - Main Interconnected System 2016

Source: Authority calculations

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

### Underlying Movement in MIS Subsidy: 2006 to 2015, and 2016 estimate

Figure 28 presents the Authority's underlying measure of MIS Subsidy between 2006 and 2015 and expected MIS Subsidy in 2016. The underlying measure assumes revenue, costs and efficiencies were correctly forecast between 2006 and 2015 so as to return zero correction factors. The 2016 estimate of MIS Subsidy reflects the 2016 MAR of PWP, OETC, MEDC, Majan and Mazoon and assumed growth in Supply of 9.1%.



Economic Cost (OMR m)	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016 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	520.6
OETC (MAR excluding Kt)	26.5	27.9	31.5	38.5	41.4	44.0	46.9	65.2	68.6	73.9	75.1
MEDC (MAR excluding Kt)	22.8	23.8	23.9	32.3	34.9	38.8	55.8	59.2	62.6	64.7	67.3
Majan (MAR excluding Kt)	16.6	17.8	19.6	26.0	28.0	30.8	40.8	42.1	44.4	53.1	51.0
Mazoon (MAR excluding Kt)	23.0	24.2	27.6	37.5	41.2	45.2	63.3	65.8	68.5	82.8	84.1
Underlying Economic Cost	229.6	238.2	263.8	311.9	343.8	381.3	456.4	527.7	556.2	773.0	798.2
Permitted Tariff (& other) Revenue	143.1	153.9	179.8	201.5	227.1	259.9	286.4	311.2	345.9	399.0	437.8
Underlying Economic Subsidy Requirement	86.5	84.3	84.0	110.4	116.7	121.5	170.0	216.5	210.3	374.0	360.4
Total Units Supplied (GWh)	9,194	9,778	11,317	12,714	14,122	16,374	18,502	20,021	22,098	25,513	27,844
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	28.7
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	15.7
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	12.9
Real (2016 prices)											
Underlying Economic Cost per kWh Supplied	35.6	33.8	30.6	28.3	27.7	25.6	26.0	27.0	25.6	30.4	28.7
Underlying Subsidy per kWh Supplied (bz/kWh)	13.4	12.0	9.7	10.0	9.4	8.2	9.7	11.1	9.6	14.7	12.9
		374.	0 360.4							14.7	,
86.5 84.3 84.0 110.4 116.7 121.5	216.5	210.3		9.4	8.6 7	.4 8.7	8.3 7	9.2	10.8	9.5	12.9
2006 2007 2008 2009 2010 2011 20	012 2013	2014 201	5 2016 e	2006	2007 20	008 2009	2010 20	011 2012	2013 2	2014 201	5 2016 e
MIS Underlying Subsidy million (	OMR					MIS Under	lying Subsidy	Bz/KWh			

### Figure 28: Underlying Movement in MIS Subsidy: 2006 to 2015 & 2016 Forecast

Source: Authority calculations

Between 2006 and 2014 the underlying economic cost of MIS supply increased by 142.3% and output (in the form of MWh supplied) by 140.4%. Subsidy per kWh increased by 0.1% baiza/kWh (or 1%) over the same period.

A doubling in the price of gas sold to electricity generation plants resulted in a significant increase in underlying Subsidy per kWh in 2015 (14.7 baiza/kWh) which is 54% higher than 2014 (9.5 baiza/kWh), reflecting a 39% increase in economic cost per kWh and no change in Permitted Tariffs. The Authority estimates that the underlying Subsidy per kWh will decrease by 12.2% from 14.7 baiza/kWh in 2015 to 12.9 baiza/kWh in 2016.

### **Rural Systems**

Outturn RAEC Subsidy in 2015 was OMR 67.4 million or 82.6 baiza/kWh. This reflects total economic cost of OMR 81.1 million (99.3 baiza/kWh) and OMR 13.7 million (16.8 baiza/kWh) in customer revenue.

Figure 29 compares outturn 2015 Subsidy and our 2016 estimate of RAEC Subsidy.

Customer Revenue	Subsidy 81	.1 88.	3 99.3	<sup>3</sup> 94.1
	20	)15 201	6 201	5 2016
	r	million OMR	Bai	za/kWh
ltem	20	15 201	6 2015	2016
Customer Revenue	13	.7 15.7	7 16.8	16.7
Subsidy	67	.4 72.6	6 82.6	77.4
Economic Cost	81	.1 88.3	3 99.3	94.1
Subsidy % Economic (	Cost 83	% 82%	83%	82%

### Figure 29: RAEC 2015 Outturn & 2016 Subsidy Estimate

Source: 2015 audited SCRC Statements & Authority calculations



RAEC Subsidy will increase in 2016 to OMR 72.6 million (77.4 baiza/kWh); this is approximately 8% higher than outturn Subsidy in 2015; however in baiza/kWh it is expected to decrease by 6%. The increase in 2016 RAEC Subsidy is mainly driven by the increase in output.

Figure 30 presents underlying RAEC Subsidy between 2006 and 2015 and expected underlying RAEC Subsidy in 2016.

Figure 30: RAEC Underlying Movement in Subsidy: 2006 to 2015 & 2016 Forecast

										67.6	71.7											
	16.6	18.3	23.7	27.6	29.7	30.5	43.8	44.9	48.5			68.0	69.1	76.2	74.9	71.0	66.0	81.1	2013	63.2	82.8	76.3 2016 e
	2006 Actual	2007 Actual	2008 Actual	2009 Actual	2010 Actual	2011 Actual	2012 Actual	2013 Actual	2014 Actual	2015 Actual	2016 e Estimate	Actual		Estimate								
					million O	MR										Bz/kWh						ľ
Nominal	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016 e	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Customer Revenue	3.5	3.8	5.4	6.5	7.3	8.7	10.6	12.5	12.4	13.7	15.7	14.3	14.5	17.3	17.7	17.6	18.9	19.6	19.5	17.6	16.8	16.7
Subsidy	16.6	18.3	23.7	27.6	29.7	30.5	43.8	44.9	48.5	67.6	71.7	68.0	69.1	76.2	74.9	71.0	66.0	81.1	70.0	63.2	82.8	76.3
Economic Cost	20.1	22.2	29.1	34.1	37.0	39.2	54.4	57.4	60.9	81.3	87.4	82.3	83.6	93.5	92.6	88.6	84.9	100.7	89.5	86.6	99.5	93.1
Total Units Supplied (GWh)	246	273	312	368	420	462	540	641	703	816	939											
Real (2016 prices)																						
Subsidy	23.7	25.4	31.2	31.7	33.8	33.6	46.1	46.0	49.2	67.8	71.7	96.9	95.9	100.0	86.2	80.8	72.6	85.4	71.8	64.2	83.0	76.3
Economic Cost	28.7	30.7	38.2	39.2	42.1	43.2	57.3	58.9	61.8	81.5	87.4	117.3	116.1	122.7	106.6	100.8	93.4	106.1	91.8	87.8	99.8	93.1

Source: 2006 to 2015 audited SCRC Statement, Authority calculations.

Please refer to Annex D for further details of the 2015 outturn RAEC Subsidy and 2016 RAEC Subsidy estimate.

### **Dhofar Power System**

Outturn DPC Subsidy in 2015 was OMR 42.8 million. This reflects total economics cost of OMR 83.8 million and customer revenue of OMR 40.9 million. In 2015 DPC Subsidy accounted for 51% of the total economic cost of supply (OMR 83.8 million), the remaining 49% of costs was recovered through customer revenue.

Figure 31 compares outturn 2015 Subsidy and our 2016 estimate of DPC Subsidy.



### Figure 31: DPC 2015 Outturn & 2016 Subsidy forecast

Source: 2015 audited SCRC Statements & Authority calculations



The Authority's estimate of 2016 DPC Subsidy is OMR 38.2 million. This is 11% lower than 2015 outturn Subsidy, and reflects a total economic cost of supply of OMR 86.8 million and customer revenue of OMR 48.6 million. Please refer to Annex D for further details of the 2015 outturn DPC Subsidy and 2016 DPC Subsidy estimate

### Comparison of 2015 Subsidy by Company

Figure 32 presents a comparison of Subsidy provided to MEDC, Majan, Mazoon, RAEC and DPC in 2015. The left hand panel presents Subsidy (baiza) per kWh supplied, the right hand panel shows Subsidy (OMR) per Customer Account.



### Figure 32: 2015 Subsidy Comparisons by Company

Source: 2015 audited SCRC Statements & Licensee returns

Mazoon accounts for 31.0% of the OMR 454.4 million of Subsidy and financial support provided to the companies in 2015, MEDC accounts for 23.8%, Majan 21.0%, RAEC 14.8%, and DPC 9.4%.

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

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


## **Electricity Tariffs**

### **Permitted Tariffs**

Electricity supplied to consumers is charged at a Permitted Tariff approved by the Council of Ministers.

Table 5 presents details of the present Permitted Tariffs for different customer categories, and Permitted Tariff fees for the disconnection and reconnection of customer accounts.

## Table 5: Permitted Tariffs

#### A: Permitted Tariffs for Electricity Supply

Permitted Tariff Category		Tariff Structure					
Industrial 1	All	All Regions except Dhofar Dhofar Region					
	Septerr	ber to April: 12 Baiza	per kWh	August to March:	: 12 Baiza perkWh		
	May t	April to July: 24	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		
Residential	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		
Government	10 Bz / kWh	15 Bz / kWh	20 Bz / kWh	25 Bz / kWh	30 Bz / kWh		
Agriculture & Eicherice		0-7000 kWh		7001 kW	h & above		
Agriculture & Fisheries		10 Baiza per kWh	20 Baiza per kWh				
Tourism2	0-3000 kWh	3001-5000 kWh	5001-7000 kWh	above 7001 kWh			
Tourism2	10 Bz / kWh	15 Bz / kWh	20 Bz / kWh	20 Bz	z / 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

No new Permitted Tariffs or tariff modifications were implemented in 2015.



### **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 2016 PWP electricity Bulk Supply Tariffs are shown in Table 6.

### Table 6: PWP 2016 Electricity Bulk Supply Tariffs

#### A PWP Electricity Bulk Supply Tariff for MIS - 2016

Off Peak	Night Peak	Weekday Day- peak	Weekend Day-peak		
12.0	12.0	12.0	12.0		
14.0	14.0	14.0	14.0		
18.0	27.0	59.0	37.0		
15.0	21.0	27.0	20.0		
14.0	14.0	14.0	14.0		
12.0	12.0	12.0	12.0		
Day(s) / Time(s)					
All days : 02:00 to 13	:00 and 17:00 to 22:0	00			
All days : 22:00 to 02:00 (following day)					
Sunday to Thursday, 13:00 to 17:00					
Friday to Saturday, 13:00 to 17:00					
	12.0 14.0 18.0 15.0 14.0 12.0 Day(s) / Time(s) All days : 02:00 to 13 All days : 22:00 to 02 Sunday to Thursday,	12.0         12.0           14.0         14.0           18.0         27.0           15.0         21.0           14.0         14.0           12.0         12.0           Day(s) / Time(s)         12.0           All days : 02:00 to 13:00 and 17:00 to 22:00	Off Peak         Night Peak         peak           12.0         12.0         12.0           14.0         14.0         14.0           18.0         27.0         59.0           15.0         21.0         27.0           14.0         14.0         14.0           14.0         14.0         14.0           14.0         14.0         14.0           12.0         12.0         12.0           14.0         14.0         14.0           12.0         12.0         12.0           Day(s) / Time(s)         and 17:00 to 22:00         All days : 22:00 to 02:00 (following day)           Sunday to Thursday, 13:00 to 17:00         Use Not		

Source: PWP 2016 Electricity BST Leaflet for MIS

#### B PWP Electricity Bulk Supply Tariff for DPS - 2016

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	25.0	25.0	20.0	21.0	20.0	31.0	
May to June	55.0	25.0	21.0	37.0	20.0	31.0	
July to August	14.0	14.0	14.0	14.0	14.0	14.0	
September to October	16.0	14.0	14.0	16.0	14.0	14.0	
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 1	5:00 to 17:00				
On-Peak Weekend	Friday to Saturday : 0	0:00 to 04:00 and 15	:00 to 17:00				
Off-Peak Morning	All days : 04:00 to 11	All days : 04:00 to 11:00					
Mid-Peak Weekday	Sunday to Thursday : 11:00 to 15:00						
Mid-Peak Weekend	Friday to Saturday : 1	1:00 to 15:00					
Off-Peak Night	All days : 17:00 to 24	:00					

Source: PWP 2016 Electricity BST Leaflet for DPS

The Authority also approves water Bulk Supply Tariffs charged by PWP and RAEC for the Bulk Supply of water to Water Departments. Table 7 below shows the approved 2016 PWP and RAEC water Bulk Supply Tariffs.



# Table 7: PWP and RAEC 2016 Water Bulk Supply Tariffs

#### Schedule of Charges

	Rate
Fixed charge for committed Water Desalination Capacity	OMR 0.377 per day per
	m³/day
Variable charge for Desalinated Water	OMR 0.089 per day per m <sup>3/day</sup>
PWP service charge (based on committed Water	OMR 0.005 per day per
Desalination Capacity)	m <sup>3</sup> /day
Variable charge for Distillate Water Supplied to MISC <sup>1</sup>	OMR 0.3015 to 0.9618 per
Variable charge for Distillate water Supplied to MISC	day per m³/day
Source: PWP 2016 Water BST Leaflet	
RAEC Water Bulk Supply Tariff - 2016	
	Rate

	ιλαισ
RAEC Water Bulk Supply Tariff	OMR 1.340 per m <sup>3</sup>
Source: RAEC 2016 Water BST Leaflet	

#### Transmission Use of System Charge

D

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 2016 TUoS for both MIS and DPS are shown in Table 8 below.

#### Table 8: 2016 Transmission Use of System Charge

	Sys	tem
OMR/MW	MIS	DPS
2016 TUoS Charge	12,000	12,000

Source: OETC 2016 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 2016 DUoS charge for each distribution company (MEDC, Majan, Mazoon and DPC) are shown in Table 9 below.

#### Table 9: 2016 Distribution Use of System Charges

	Company				
OMR/MWh	MEDC	Majan	Mazoon	DPC	
2016 DUoS Charge	5.39	7.49	8.50	6.10	

Source: Licensed Distribution companies' 2016 Distribution Use of System Methodology and Charging Statement

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



ANNUAL REPORT 2015

# REGULATION

## Authority for Electricity Regulation

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

The present Members of the Authority are:

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

Excluding Members, the Authority has a total compliment of 46 Directors and staff, most of whom are Omani national. Professional staff have qualifications relevant to their respective areas of regulation: 24 staff have Bachelor's Degrees and 9 have Master Degrees.

## **Members Meetings**

Members met regularly throughout 2015 on the dates shown in Table 10

# Table 10: Members Meetings in 2015

Appointed for term in:	Dr Amer Al Hinai Chairman & Member May-2014	Qais Al Zakwani Executive Director & Member May-2014	Ayisha Al Mawali Member May-2014	Mohammed Al Shahri Member May-2014	Eng Saleh Al Rashdi Member April-2015
Meeting Dates				-	
4-February-2015	✓	√	✓	✓	
9-March-2015	✓	✓	✓	✓	
13-April-2015	✓	✓	✓	✓	
7-May-2015	✓	✓	✓	✓	
17-June-2015	✓	✓	✓	✓	✓
15-July-2015	✓	✓	✓	✓	✓
7-September-2015	✓	✓	✓	✓	✓
19-October-2015	✓	×	✓	✓	✓
9-November-2015	✓	✓	✓	✓	✓
18-November-2015	✓	<ul> <li>✓</li> </ul>	✓	✓	✓
28-December-2015	✓	✓	✓	✓	✓



# 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 11 presents licence fee income by regulated activity and the number of Licence Holders by activity, for 2008 to 2016, inclusive.

Rial C	)mani	Generation	Generation & Desalination	Transmission & Despatch	Distribution & Supply	RAEC Activities	PWP Activities	PWP: Electricity	PWP: Related Water	PWP: Salalah	Generation(Re newables)	Total Fee income
2008	Fees	95,284	99,087	320,669	474,590	159,345	232,225	192,401	10,359	29,465	0	1,381,200
	# licenses	4	3	1	3	1	1					13
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

### Table 11: Licence Fees 2008 to 2016

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 water sector regulation in 2015 was around OMR 3.2 per Customer account, around one tenth of one baiza per kWh Supplied and less that 0.25% of total electricity and water sector turnover, metrics the Authority believes compare favourably to international benchmarks of regulatory costs.

## 2016 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 2015 the Authority consulted on its proposed 2016 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 2016 Forward Work programme is presented in Annex F of this report.



### Customer Affairs Directorate

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

#### In 2015 the Directorate:

- i. Introduced a new reporting framework for licensees in relation to Key Performance Indicators incorporated in the 2015-2017 distribution and supply price control;
- ii. Further progressed the plan for a small scale implementation during 2016 and 2017 of an automated meter reading (AMR) system for around 8,000 customers who consume large amounts of electricity;
- iii. Published a customer friendly "Guide to Determinations" as the third in our series of customer guides entitled "How can we help you;"
- iv. Developed a new Customer Resource Centre to be incorporated in the Authority's website to be launched in 2016;
- v. Continued to build relations with external stakeholders, focusing on smaller scale community groups who are less well informed about electricity customers' rights;
- vi. Supported the Authority's review of distribution and supply licensees outage management processes, playing a lead role in the Authority's workshop that led to the development of short and medium term Action Plans for each licensee; ;
- vii. Ensured that distribution and supply Licensees continued to progress the Blueprint for customer services enhancements under development by licensees. Supported licensees' introduction of a new billing system that will provide greatly enhance the ability to manage meter reading performance and improve the accuracy of estimated bills;
- viii. Approved the revision of the Supply Terms applicable to residential customers:
- ix. Received 87 new customer complaints and resolved 92 outstanding customer complaints;
- x. Advised a further 159 customers on their rights and how to progress their complaint using the approved complaint handling procedure;
- xi. Contributed to a number of public conferences and debates on customer related issues, both in Oman and internationally

#### Licences, Codes, Procedures and Charters:

In late 2013 the Authority instructed distribution and supply licensees to review the Supply Agreement (Terms of Supply) applicable to residential customers that had been in use since 2006, with the objective of simplifying the document and making it easier for customers to understand.

A working group comprising of staff from each licensee and members of the Authority's Directorate of Customer Affairs discussed a number of alternative drafts during 2014 and 2015 and a significantly simpler and shorter document was approved by the Authority in early 2015. Licenses published the revised versions in April 2015.

From January 2015 distribution and supply licensees have been required to report their performance against a number of Key Performance indicators (KPIs) in accordance with the 2015-2017 price control. Reports are received on a quarterly basis and the Authority meets with each licensee on a regular basis in order to monitor progress and to assess the quality of the data received. At the same time the Authority continues to monitor performance against obligations set out in the Complaint Handling Procedure and the Late Payment Code of Practice



The Authority concluded during 2015 that although good progress was being made more needed to be done to ensure that the reporting process is sufficiently robust. During December 2015 the Authority invited consultants to indicate their interest in conducting a review of licensees' customer services performance and of their information and performance reporting.

## Automated Meter Reading for large customers

The Authority continued to progress the small scale implementation of automated meter reading for the largest 8,000 - 10,000 electricity customers in co-operation with licensees, the Electricity Holding Company and the EHC's advisors, CESI of Italy. This included further discussions on the scope of the project and preparation of tenders for the provision of more sophisticated meters and of a meter data management system. These are expected to be issued in early 2016.

## **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 69 Determinations in the period 2005 – 2012, covering all main categories of complaints. This body of precedent was sufficient to enable the Authority's staff to resolve a further 92 unresolved complaints during 2015, compared with 87 complaints received during the year. However, the Authority will continue to make further Determinations when it is necessary to set 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 87 complaints received during 2015 was a very slight decrease on the 91 complaints received during 2014. Figure 33 below presents an analysis of the issues that were the cause of those 87 complaints.



# Figure 33: Categories of Customer Complaint in 2015

2015 Complaint Issues

Source: Authority complaints database

The number of billing related complaints recorded in 2015 decreased from 56 to 45, which is 52% 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. The number of complaints relating to customer connection was a little lower than in 2014 at 16 compared with 19.



### **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 2015 the Directorate provided advice to 159 customers, compared with 115 in 2014 and 160 in 2013. Of those 159 cases, 102 related to billing, compared with 61 in 2014, an increase of 67%. Customer connections represented 25 cases, compared with 13 in 2015.



## **Economics & Financial Affairs**

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

In 2015 the Directorate:

- Completed a price control review of OETC. The new Transmission and Dispatch price controls came into effect on 1 January 2016;
- Completed a price control review of PWP. The new power and water procurement price controls came into effect on 1 January 2016;
- Undertook market share and economic interest assessments for entities participating in competitions for the Ibri IPP, Sohar III IPP, Barka III IWP, Sohar II IWP, Salalah II IWP, Sharqiyah IWP, Duqm IWP and Asila & Qurayyat temporary water projects.
- Undertook analysis to confirm outturn (2014) and projected (2015 and 2016) electricity sector subsidy requirements.
- Undertook analysis to support the issuance of draft regulations by the Public Authority for Electricity and Water on cost-reflective tariffs;
- Reviewed the 2016 PWP and RAEC electricity and water Bulk Supply Tariff proposals submitted for approval; and
- Reviewed the 2015-2021 PWP 7-Year Statement submitted for approval.



### **Technical Directorate**

The Technical Directorate is responsible for approving technical standards and for monitoring compliance with Industry Codes, planning and operating standards, and Oman Electrical Standards. The Directorate represents the Authority on the Grid Code and Distribution Code Review Panels and plays a lead role in technical and health and safety investigations, which in 2015 included fatal accidents, blackouts and water production interruptions.

### During 2015 the Directorate:

- (i) Conducted investigations in relation to fatalities in the electricity sector;
- (ii) Conducted a technical investigation of the wide-scale power interruption that affected Rusail Grid on 7 May 2015;
- (iii) Conducted a technical investigation of the loss of water production at Sohar Power Plant caused by flooding from a neighbouring facility's seawater system;
- (iv) Reviewed the development of protection capabilities within the electricity sector against the recommendations made by the Authority in 2013;
- (v) Conducted a review of capital expenditure requirements of OETC to inform the determination of new price control allowances;
- (vi) Reviewed the 2015 system capability statements of MEDC, MJEC, MZEC, RAEC and OETC;
- (vii) Undertook Health and Safety audits of RAEC and MEDC;
- (viii) Confirmed that all remaining recommendations from Health and Safety audits of Licensed Production Facilities were completed satisfactorily;
- (ix) Continued routine inspections of licensed distribution systems to ensure the safety and physical security of the networks;
- 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;
- (xi) Finalised and issued the cyber security standards that came into effect from 1 January 2016;
- (xii) Followed up on the implementation of the Salalah Blackout investigation;
- (xiii) Participated in the discussions with PWP on the development of the Spot Market.
- (xiv) Supported OETC and Mazoon in an evaluation of the causes of widespread power interruptions in Sharqiyah to identify appropriate remedial measures; and
- (xv) Undertook a technical evaluation of desalination facilities on Masirah island.

#### **OETC Price Control Review**

As part of a holistic view of the investment needs of OETC, the Authority considered both the capital expenditure drivers and the technical capability of the licensee to deliver the projects. This assessment included the way in which OETC planned its investments, the way in which projects were managed, the effectiveness of training, and how the OETC were ready to take full advantage of the investments.

#### Grid Code Review Panel

The Grid Code Review Panel (GCRP) met six times during 2015, which represented four regular meetings and two additional meetings, see Table 12. A large part of the work of the GCRP in 2015 was the review of proposals to revise the Grid Code, which necessitated an exceptional meeting and for meeting GCRP-43 to be run over four days (the final two parts in January 2016).



Meeting	Meeting date	Chaired by	Location
GCRP 40	16-Feb-15	OETC	Muscat
GCRP 41	04-May-15	OETC	Muscat
GCRP 42	03-Aug-15	OETC	Muscat
Exceptional Meeting	09-Sept-15	OETC	Muscat
GCRP 43 (Part 1)	17-Nov-15	OETC	Muscat
GCRP 43 (Part 2)	01-Dec-15	OETC	Muscat

# Table :12 Grid Code Review Panel meetings in 2015

## **Distribution Code Review Panel**

The Distribution Code Review Panel (DCRP) met four times during 2015, see Table13.

## Table 13: Distribution Code Review Panel meetings in 2015

Meeting	Meeting date	Chaired by	Location
1/2015	05-Feb-15	RAEC	Muscat
2/2015	14-May-15	RAEC	Muscat
3/2015	07-Sept-15	RAEC	Muscat
4/2015	18-Nov-15	RAEC	Muscat

During 2015 the DCRP continued its efforts to improve the product and contractor approval processes and made significant improvements in its assessment of competent protection engineers, and testing and commissioning engineers.

The improvement in product approval processes is reflected by DCRP issuing 27 new product approvals in 2015, double the figure in 2014. The rigorous progress is increasing the number of quality products available for use in the electricity sector.



## Licensing & Legal Affairs

The Directorate acts as legal counsel to Authority Members to ensure all Authority decisions comply with the requirements of the Sector Law and other applicable Laws. The Directorate is responsible for monitoring compliance with conditions of authorisations granted by the Authority and for maintaining channels of communication with relevant ministries and competent authorities to ensure the Authority has the information needed to perform its functions and cooperate with such authorities when required. The Directorate is responsible for handling applications submitted to the Authority including Licence and License Exemption applications and applications for approvals and consents. The Directorate is also responsible for maintaining the public Register.

- Reviewed a licence application from Bahwan Astonfield Solar Power (BASP). The Authority granted BASP a Generation Licence (Renewable Energy) to authorise Generation of electricity from its Production Facilities. The maximum authorised capacity will be 303 KW and the output of the Production Facilities will be sold to the Rural Areas Electricity Company. BASP's Licence is effective from 1 July 2015 and is the first Licence for Generation of Electricity from renewable energy resources.
- Reviewed a Licence Application from Muscat City Desalination Company (MCDC) as the first application for a Desalination Licence of a Special Nature following the amendment of the Sector Law by Royal Decree No. 47L2013. The Authority withheld the grant of the Licence and granted the MCDC a Licence Exemption to authorise Desalination of water from Desalination Facility of a special Nature effective from 1 July 2015. The licence Exemption will be replaced by a Desalination Licence of a Special Nature on successful completion of the project to the satisfaction of the Authority.
- Reviewed a Licence Exemption application from BP Epsilon –Oman Branch. The company will be undertaking electricity Generation and water Desalination for the purposes of self-supply and will operate its transmission and distribution networks. The Licence Exemption would be granted in 2016 after submission of all additional information required and completion of the process for the grant of the Licence Exemption.
- In coordination with the Directorate of Technical Regulation, completed the process of modifying all Licenses (except OPWP Licence) by adding a new condition in relation to SCADA and DCS Cyber Security in the Licences. The modification will be effective from 1 January 2016.
- Modified the Generation and Desalination Licence granted to ACWA Power Barka to authorise the additional Desalination capacity following the Phase II expansion of the Production Facilities.
- Modified the Distribution and Supply Licence of Dhofar Power Company by expanding the Authorised Area to be the whole of Dhofar Governorate. This modification allows DPC to supply customers falling outside its previous authorised area (and network) without affecting RAEC's authorisation to undertake its activities within the Dhofar governorate. The modification is effective from 1 January 2016.
- Coordinated with other Directorates at the Authority on the modification of the Schedule Charge Restriction Condition of Oman Power and Water Procurement Company (OPWP) and Oman Electricity Transmission Company (OETC). The modification is required to facilitate implementation of new three years price controls and will be effective from 1 January 2016.
- Prepared a new application form for Article (106) consents which will be effective in 2016. The new application process will standardise the information submitted and provide timelines for completion.



- Issued a warning notice to the Oman Mining Company (OMCO) under Article (116) of the Sector Law. The notice was issued due to the Exemption Holder's failure to comply with Condition (3.3) (b) (v) of its Licence Exemption.
- Reviewed and approved an application for Approval of Change of Control for Dhofar Generating Company whereby the ownership of the company changed from EHC to the consortium which won the competition for the Salalah II Project. The name of the Licensee remained the same following the change of control.
- Handled and represented the Authority in a number of litigation cases involving the Authority before a number of Omani courts. The Authority handled all its cases internally without appointing any external lawyers.

The Directorate is also involved in a number of issues relating to the GCC Electricity Interconnection Project. It assisted and coordinated with PAEW in the preparation for Oman's entry to the GCC Electricity Interconnection and the execution of the General Agreement (signed by PAEW) and the Power Exchange and Trading Agreement (signed by OPWP and OETC) which were signed by the Sultanate in November 2014. The Authority has drafted access conditions to the OPWP and OETC Licenses and grants the required Export and Import and the International Interconnection Licences respectively which will be effective in 2016.



# **Annex A: Audited Financial Statements**

Authority for Electricity Regulation, Oman

Report and Financial Statements for the year ended 31st December 2015



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

We have audited the accompanying financial statements of the Authority for Electricity Regulation, Oman, ("the Authority") which comprise the statement of financial position as at 31 December 2015 and the statements of revenue and expenses, changes in surplus fund and cash flows for the year then ended, and a summary of significant accounting policies and other explanatory information as set out on pages 3 to 19.

## Management responsibility for the financial statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with International Financial Reporting Standards, 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 determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

#### Auditor's responsibility

Our responsibility is to express an opinion on these financial statements based on our audit. We conducted our audit in accordance with International Standards on Auditing. Those standards require that we comply with ethical requirements and plan and perform the audit to obtain reasonable assurance whether the financial statements are free of material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatements of the financial statements, whether due to fraud or error. In making those risk assessments; the auditor considers internal control relevant to the Authority's preparation and fair presentation of the financial statements 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. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by management, as well as evaluating the overall presentation of financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

ANNUAL REPORT 2015





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

## Opinion

In our opinion, the financial statements, present fairly, in all material respects, the financial position of the Authority for Electricity Regulation, Oman, as of 31 December 2015, and its financial performance and its cash flows for the year then ended, in accordance with International Financial Reporting Standards.

### Report on other legal and regulatory requirements

In our opinion, the financial statements comply, in all material respects, 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.

#### Other matter

The financial statements of the Authority for the year ended 31 December 2014 were audited by another auditor who expressed an unmodified opinion on those statement on 17 June 2015.

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Deloitte & Touche (M.E.) & Co. LEC. Muscat, Sultanate of Oman 22 June 2016



# Statement of financial position at 31 December 2015

Notes	2015 RO	2014 RO
	RO	KO
5	136,968	163,620
	16,950	66,630
6	1,403,989	494,350
	1,420,939	560,980
	1,557,907	724,600
7	1,378,846	524,345
	S	3 - S
8	120,624	98,279
9	58,437	101,976
	179,061	200,255
	1,557,907	724,600
	5 6 7 8	RO 5 136,968 6 16,950 6 1,403,989 1,420,939 1,557,907 7 1,378,846 8 120,624 9 58,437 179,061

The financial statements were approved and authorized for issue by the Members on 22.5 cale 2.44

Chairman

Member

**Executive Director** 

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



# Statement of revenue and expenses for the year ended 31 December 2015

	Notes	2015 RO	2014 RO
Licence fces	10	3,292.408	3,006.935
Interest income		5.000	2.146
Other income		8.000	2,316
Total revenue		3,305,408	3.011.397
Salaries and employee related costs	11	(1,751,590)	(1,646,919)
General and administrative expenses	12	(402,259)	(403,373)
Consultancy expense		(228,539)	(\$95,404)
Depreciation	5	(68,519)	(72.231)
Total expenses		(2,450,907)	(2.717.927)
Surplus for the year		854,501	293,470

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



# Statement of changes in surplus fund for the year ended 31 December 2015

	Retained surplus RO
Balance at 1 January 2014	230.875
Surplus for the year	293.470
Balance at 1 January 2015	524,345
Surplus for the year	854,501
Balance at 31 December 2015	1,378,846

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



# Statement of cash flows

for the year en	ded 3t E	December	2015
-----------------	----------	----------	------

		5.01.
	2015	2014
	RO	RO
Operating activities		
Cash receipts from licensees and application fees for		
license exemptions and other income	3,298,408	3.008.935
Cash paid to employees and other suppliers	(2.351,901)	(2.840.802)
Net cash from operating activities	946,507	168,133
Investing activities		<b>_</b>
Purchase of property and equipment	(41.868)	(26,789)
laterest income	5.000	2.146
Net eash used in investing activities	(36.868)	(24.643)
Net change in eash and eash equivalents	909,639	143,490
Cash and cash equivalents at the beginning of the year	494,350	350. <b>86</b> 0
Cash and cash equivalents at the end of the year (Note 6)	1,403,989	494.350

The accompanying notes form an integral part of these financial statements



# Notes to the financial statements for the year ended 31 December 2015

# 1. General

The Authority for Electricity Regulation, Oman (hereafter referred to as the "Authority"), was established by 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 Onan. 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 expenditore are held for the benefit of the licensee companies as explained in Note 7 to the financial statements.

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



# Notes to the financial statements for the year ended 31 December 2015 (continued)

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

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

The following new and revised IFRSs, which became effective for annual periods beginning on or after 1 January 2015, have been adopted in these financial statements. The application of these revised IFRSs has not had any material impact on the amounts reported for the current and prior years but may affect the accounting for future transactions or arrangements.

- Annual Improvements to IFRSs 2010 2012 Cycle that includes amendments to IFRS 2, IFRS 3, IFRS 8, IFRS 13, IAS 16, IAS 24 and IAS 38.
- Annual Improvements to IFRSs 2011 2010 Cycle that includes amendments to IFRS 1, IFRS 3, IFRS 13 and IAS 40.
- Amendments to TAS 19 Employee Benefits to clarify the requirements that relate to how contributions from employees or third parties that are linked to service should be attributed to periods of service.

#### 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
IFRS 14 Regulatory Deferral Accounts	1 January 2016
Amendments to IAS 1 Presentation of Emancial Statements relating to Disclosure initiative	L January 2016
Amendments to IFRS 11 <i>Journ arrangements</i> relating to accounting for acquisitions of interests in joint operations	L January 2016
Amondments to IAS 16 Property, Plont and Equipment and IAS 38 Intangible Assets relating to clarification of acceptable methods of depreciation and amortisation	1 January 2016
Amondments to IAS 16 Property, Plant and Equipment and IAS 41 Agriculture relating to bearer plants	l January 2016
Amendments to IAS 27 Separate Financial Statements relating to accounting investments in subsidiaries, joint ventures and associates to be optionally accounted for using the equity method in separate financial statements	1 January 2016



# Notes to the financial statements for the year ended 31 December 2015 (continued)

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

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

introduction of the hedge accounting chapter in IURS 9.

New and revised IFRSs	Effective for annual periods beginning on or after
Antendments to IFRS 10 Consolidated Forancial Statements, IFRS 12 Directorage of Interests in Other Entities and IAS 28 Investment in Associates and Joint Ventures relating to applying the consolidation exception for investment entities	1 Jamiary 2016
Annual Improvements to IFRSy 2012 - 2014 Cycle covering aniculations to IFRS 5, IFRS 7, IAS 19 and IAS 34	1 January 2016
<ul> <li>IPRS 9 Enancial Instruments (revised versions in 2009, 2010, 2013 and 2014) BRS 9 issued in November 2009 introduced new requirements for the classification and measurement of financial accels. IPRS 9 was subsequently amended in October 2010 to include requirements for the classification and measurement of financial itabilities and for derecognition, and in November 2013 to include the new requirements for general hedge accounting. Another revised version of IERS 9 was issued in July 2014 mainly to include al- impairment requirements for general hedge accounting. Another revised version of IERS 9 was issued in July 2014 mainly to include al- impairment requirements for financial assets and b) finited accounting a fair value through other comprehensive income? (EV IOCI) measurement category for certain simple debt instruments.</li> <li>A finalised version of IERS 9 which contains accounting requirements for financial instruments, replacing IAS 39 Einancial lastruments: Recognition and Measurement. The standard contains requirements in the following areas:</li> <li>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 DRS 9 introduces a fair value through other comprehensive income? category for certain dobt instruments. Financial liabilities are classified in a similar manner to under TAS 39, however there are differences in the requirements applying to the measurement of an emity's owe credit risk.</li> <li>Impairment: The 2014 version of IERS 9 introduces an 'expected credit losy 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 losy incodel 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 losy is recognition; The requirements for the derecognition of financial assets management ac</li></ul>	1 January 2018
Amendments to H/RS 7 Financial Instruments Disclosures telating to disclosures about the initial application of H/RS 9 $$	When IFRS 91s first applied
It RS 7 Financial Instruments. Disclosures relating to the additional hedge accounting disclosures (and consequential amendments) resulting from the	When IFRS 9 is first applied



# Notes to the financial statements for the year ended 31 December 2015 (continued)

# 2 Adoption 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

IERS 15 Revenue from Contracts with Customers

In May 2014, IFRS 15 was issued which established a single comprehensive model for entities to use in accounting for revenue arising from contracts with customers. URS 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 scenartos. Furthermore, extensive disclosures are required by IFRS 15.

#### IFRS 16 Leaves

IPRS 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 tow value. Lessors continue to classify leases as operating or forance, with BPRS 16's approach to lessor accounting substantially unchanged from its predecessor. IAS 17.

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

L January 2018

1 January 2019.

Effective date deferred indefinitely



# Notes to the financial statements for the year ended 31 December 2015 (continued)

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

Management anticipates that these new and revised standards, interpretations and amendments will be adopted in the Authority's financial statements for the year beginning. January 2016 or as and when they are applicable and adoption of these new standards, interpretations and amendments, except for IFRS 9 and IFRS 15, may have no material impact on the financial statements of the Authority in the period of initial application.

Management atticipates that IFRS 15 and IFRS 9 will be adopted in the Authority's financial statements for the annual year beginning 1 January 2018. The application of IFRS 15 and IFRS 9 may have significant impact on annuals reported and disclosures made in the Authority's financial statements in respect of revenue from contracts with customers and the Authority's financial assers and financial liabilities. 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 correctly 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 in equal installments over their estimated useful economic lives as follows:

	Years
Furniture, fixtures and office equipment	6,67
Vehicles	5
Computers	) - 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.



# Notes to the financial statements for the year ended 31 December 2015 (continued)

## 3. Summary of significant accounting policies (continued)

#### 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 tinancial 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, eash and cash equivalents consist of cash on hand and bank balances maturing within three months from the date of placement.



# Notes to the financial statements for the year ended 31 December 2015 (continued)

## Summary of significant accounting policies (continued).

### Licence fees

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

#### Foreiga currencies

Transactions denominated in foreign correncies entered into during the year have been translated into Rials Omam 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 beence 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.



# Notes to the financial statements for the year ended 31 December 2015 (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.

Pinancial 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 tisk and liquidity risk. The Authority's overall risk management programme focuses on the unpredictability of financial markets and seeks to minimise potential adverse effects on the Authority's financial performance.

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

#### Credit risk

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

#### 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.



# Notes to the financial statements for the year ended 31 December 2015 (continued)

## Financial risk management (continued)

#### Financial risk factors (continued)

### Liquidity risk

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

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

#### Market risk

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

#### Foreign currency risk

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

#### Interest rate risk

The Authority has balances with banks, which are interest hearing 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)

#### Fair value of financial instruments

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



# Notes to the financial statements for the year ended 31 December 2015 (continued)

# 5. Property and equipment

	Furniture, fistores and office			
	equipment	Vehicles	Computers	Total
	RO	RO	RO	RO
Cast				
At L January 2014	268,312	131.075	134.573	533,960
Additions	2.049	19,700	5,040	26,789
At I January 2015	270,361	150,775	139,613	560,749
Additions	10.593	30,000	1,275	41,868
Dispusals	-	(20,600)	-	(20,600)
At 31 December 2015	280,954	160,175	140,888	582,017
Depreciation				
At L January 2014	140,833	67,158	116.907	324.898
Charge for the year	38,910	20,624	12,697	72,201
At LJanuary 2015	179,743	87,782	129.604	397,129
Charge for the year	40,049	13,445	5,025	68,519
Disposals	-	(20,599)	-	(20,599)
At 31 December 2015	219,792	90.628	134.629	445,049
Carrying value				
At 31 December 2015	61,162	69,547	6,259	136,968
At 31 December 2014	90,618	62,993	10,009	163,620
				-

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.

### Cash and cash equivalents

	2015	2014
	RO	RO
Cash on hand	900	504
Cash at bank	1,403,089	493,846
	1,403,989	494,350



# Notes to the financial statements for the year ended 31 December 2015 (continued).

# 7. Retained surplus

The retained surplus 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 I aw.

## 8. Provision for employees' end of service benefits

,	2015 RO	2014 RO
At I January	98,279	150,739
Paid during the year	-	(79,589)
Charge for the year (Note 11)	12,345	27,129
At 31 December	120,624	98.279

## 9. Accruals and other payables

Accruals	58,252	101,210
Other payablos	185	766
	58,437	101,976

# 10. Licence fees

Licence fees represent the amounts involced to licensees for the year

# 11. Salaries and employee related costs

Salaries and allowances Cost of end of service benefits for expatriate	1,480,501	1.337.534
employees (Note 8)	22.345	27,129
Contribution to defined contribution retirement plan	119,855	107,289
Other employee related costs	128,889	17-1,967
	1,751,590	1,646.919



# Notes to the financial statements for the year ended 31 December 2015 (continued)

# 12. General and administrative expenses

	2015	2014
	RO	RO
Rent	172,800	172,800
Insurance	65,291	49,960
Communications	14,200	15,001
Advertisement and publicity	6,833	26,205
Travelling and conveyance	42,799	40,386
Printing and stationery	22,176	14.070
Utilities	8,080	7.080
Repairs and maintenance	5,338	6.227
Miscellaneous expenses	64,742	71.644
	402,259	403.373

# 13. Taxation

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

# 14. Related party transactions

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

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

	2015 RO	2014 RO
Short term employment benefits	194,767	165.671
End of service benefits	6.372	6,294



# Notes to the financial statements for the year ended 31 December 2015 (continued)

# 15. Credit risk

#### **Exposure to credit risk**

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

	2015	2014
	RO	RO
Other receivables	4,936	597
Bank balances	1,403,089	493,846
	1,408,025	494,443
	·	

Licence fees receivable at the reporting date were past due for nil days (2014, nil days)

## 16. Liquidity risk

The following are the maturities of the financial liabilities.

	20	15	201-	1
	Carrying	6 montbs	Carrying	6 months
	amount	or jess	amount	or less
	RO	R()	RO	RO
Accruals	58,252	58,252	101.210	101.210
Other payables	185	185	766	766
	58,437	58,437	101,976	101.976

## 17. Interest rate risk

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

	2015 RO	2014 RO
Fixed rate instruments Financial assets	1,403.089	493,845

## 18. Commitments

Operating commitments	144,582	11,743

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Annex B: Authorised Entities



# **Licence Holders**

Majan Electricity Company SAOC (Member of Nama Group)	Ð
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	X
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; Distribut and supply of electricity & Bulk supply of desalinated water to Water Departments	ion
Wadi Al Jizzi Power Company SAOC Regulated Activity: the Generation of electricity	
Al Rusail Power Company SAOC Regulated Activity: the Generation of electricity	albijujaj Kajosom
Al Ghubrah Power and Desalination Company SAOC Regulated Activity: the Generation of electricity and Desalination of water	a préliášaj A prejenské pover a o cestanarom company sado
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	Acres proven
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	SOHAD POWER
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	sembcorp 🕽
Al Batinah Power Company SAOC Regulated Activities: the Generation of Electricity	AL RUTHERY
Al Suwadi Power Company SAOC Regulated Activities: the Generation of Electricity	(1) M




#### **Licence Holders**

Phoenix Power Company SAOC Regulated Activity : the Generation of Electricity	Therente
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)	



#### **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.	SIUCI
Oman Mining Company LLC Regulated Activities: the Generation; Distribution; and Supply of electricity	
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	ShangriLa's منتجع البحصية سلطنة عبدان Barr Al Jissah Rosort & Spa Sultanate of comm
Oman Refineries and Petrchemicals company LLC Regualted Activities : the Generation of elecricity and Desalination of water ; Distribution and supply of electricity to Premises.	أورب Orpic
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	OXY
Sohar Aluminium company LLC Regulated Activities : the Generation of electrcity co-located with Desalination of water ; Distribution and transmission of electricity.	S
Sharqiyah Desalination Company SAOC Regulated Activities: the Generation of electricity co-located with the Desalination of water in the same site.	
Occidental Mukhaizna Regulated Activities: the Generation of electricity and Desalination of water; and the Distribution of electricity	<b>OXY</b>
Ministry of Defence Regulated Activity : the Generation of electricity for Sale to PWP	
Muscat City Desalination company SAOC Regulated Activity : the Desalination of water from a Desalination Facility of a Special Nature.	



Annex C: Electricity & Water Sector Statistics



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**Electricity Sector Statistics** 



Electricity Customer Accounts by System, Company and Tariff Category: 2014 and 2015

			Main Interconnected System (MIS)	ted System	(SIW)			<b>Rural Systems</b>	tems	Dhofar System	rstem	Total Or	Oman
2014 Accounts	Muscat	% Total	% Majan <sub>Total</sub>	Mazoon	% Total	Total MIS	% Total	RAEC	% Total	DPC	% Total		% Total
Residential	216,795	76.2%	136,854 73.3%	256,731	75.3%	610,380	75.2%	21,688	70.2%	63,750	75.8%	695,818 75.0%	75.0%
Industrial	234	0.1%	496 0.3%	92	0.0%	822	0.1%	44	0.1%	71	0.1%	937	0.1%
Commercial	59,213	20.8%	37,531 20.1%	66,685	19.6%	163,429	20.1%	5,651	18.3%	15,101	18.0%	184,181 19.9%	19.9%
Agriculture & Fisheries	174	0.1%	3,420 1.8%	3,459	1.0%	7,053	0.9%	336	1.1%	101	0.1%	7,490 0.8%	0.8%
Hotels / Tourism	53	0.0%	357 0.2%	53	0.0%	463	0.1%	63	0.2%	84	0.1%	610	610 0.1%
Government	8,042	2.8%	7,880 4.2%	13,862	4.1%	29,784	3.7%	3,047	9.9%	4,910	5.8%	37,741 4.1%	4.1%
Ministry of Defence	114	0.0%	67 0.0%	41	0.0%	222	0.0%	75	0.2%	110	0.1%	407	%0.0
2014 Totals	<b>284,625</b> 100.0%	100.0%	<b>186,605</b> 100.0%	340,923	100.0%	812,153	100.0%	30,904	100.0%	84,127	100.0%	<b>927,184</b> 100.0%	100.0%
% of Oman	30.7%		20.1%	36.8%		87.6%		3.3%		9.1%		100.0%	
			Main Interconnected System (MIS)	ted System	(MIS)			<b>Rural Systems</b>	tems	Dhofar System	vstem	Total O	Oman
2015 Accounts	Muscat	% Total	% <b>Majan</b> Total	Mazoon	% Total	Total MIS	% Total	RAEC	% Total	DPC	% Total		% Total
Residential	235,318	76.0%	143,753 72.6%	275,047	75.0%	654,118	74.8%	23,134	69.7%	70,584	76.1%	747,836 74.8%	74.8%
Industrial	186	0.1%	532 0.3%	102	0.0%	820	0.1%	50	0.2%	58	0.1%	928	928 0.1%
Commercial	65,397	21.1%	41,442 20.9%	73,367	20.0%	180,206	20.6%	6,119	18.4%	16,549	17.8%	202,874 20.3%	20.3%
Agriculture & Fisheries	178	0.1%	3,679 1.9%	3,660	1.0%	7,517	0.9%	394	1.2%	103	0.1%	8,014 0.8%	0.8%
Hotels / Tourism	53	0.0%	364 0.2%	79	0.0%	496	0.1%	64	0.2%	84	0.1%	644	0.1%
Government	8,569	2.8%	8,163 4.1%	14,412	3.9%	31,144	3.6%	3,322	10.0%	5,231	5.6%	39,697	4.0%
Ministry of Defence	102	0.0%	72 0.0%	49	0.0%	223	0.0%	104	0.3%	109	0.1%	436	0.0%
<b>2015 Totals</b> % of Oman	<b>309,803</b> 31.0%	100.0%	<b>198,005</b> 100.0% 19.8%	<b>366,716</b> 36.7%	100.0%	<b>874,524</b> 87.4%	100.0%	<b>33,187</b> 3.3%	100.0%	<b>92,718</b> 9.3%	100.0%	<b>1,000,429</b> 100.0%	100.0%
Net Change in Accounts Annual % Change	<b>25,178</b> 8.8%		<b>11,400</b> 6.1%	<b>25,793</b> 7.6%		<b>62,371</b> 7.7%		<b>2,283</b> 7.4%		<b>8,591</b> 10.2%		<b>73,245</b> 7.9%	



 Table 2
 Electricity Supplied to Customers by System, Company and Tariff Category: 2014 and 2015

			Main Int	erconne	4ain Interconnected System (MIS)	(MIS)			<b>Rural Systems</b>	stems	Dhofar System	stem	Total Oman	man
2014 MWh	Muscat	% Total	Majan	% Total	Mazoon	% Total	Total MIS	% Total	RAEC	% Total	DPC	% Total		% Total
Residential	4,171,574 48.0% 2,44	48.0%	2,448,555	36.5%	4,077,449	60.8%	10,697,579	48.4%	342,148	45.8%	919,557	39.5%	11,959,284	47.5%
Industrial	545,911		6.3% 2,988,172	44.6%	107,018	1.6%	3,641,101	16.5%	37,989	5.1%	509,739	21.9%	4,188,829	16.6%
Commercial	2,326,848	26.8% 76	769,391	11.5%	1,353,401	20.2%	4,449,640	20.1%	117,944	15.8%	431,245	18.5%	4,998,830	19.9%
Agriculture & Fisheries	9,847	0.1%	118,955	1.8%	174,604	2.6%	303,406	1.4%	26,191	3.5%	9,458	0.4%	339,055	1.3%
Hotels / Tourism	1,840	0.0%	11,431	0.2%	12,710	0.2%	25,981	0.1%	23,028	3.1%	2,124	0.1%	51,132	0.2%
Government	1,526,486 17.6%	17.6%	349,215	5.2%	901,563	13.4%	2,777,264	12.6%	168,156	22.5%	346,846	14.9%	3,292,266	13.1%
Ministry of Defence	106,077 1.2%	1.2%	17,690	0.3%	78,964	1.2%	202,731	0.9%	31,663	4.2%	108,302	4.7%	342,696	1.4%
2014 Totals	8,688,583 100.0% 6,70	100.0%	6,703,410	100.0%	6,705,708	100.0%	22,097,701	100.0%	747,119	100.0%	2,327,270	100.0%	<b>25,172,090</b> 100.0%	100.0%
% of Total Oman	34.5%		26.6%		26.6%		87.8%		3.0%		9.2%		100.0%	
			Main Int	erconne	4ain Interconnected System (MIS)	(SIM)			Rural Systems	stems	Dhofar System	stem	Total Oman	nan
2015 MWh	% Muscat Total	% Total	Majan	% Total	Mazoon	% Total	Total MIS	% Total	RAEC	% Total	DPC	% Total		Total
Residential	4,940,681 48.9% 2,791,607	48.9%	2,791,607	35.5%	4,607,282	61.0%	12,339,571	48.4%	401,818	49.2%	1,015,575	39.3%	13,756,965	47.6%

			Main Int	erconne	Main Interconnected System (MIS)	(WIS)			Rural Systems	tems	Dhofar System	stem	Total Oman	neu
2015 MWh	% Muscat Total	% Total	Majan	% Total	Mazoon	% Total	Total MIS Total	% Total	RAEC	% Total	DPC	% Total		Total
Residential	4,940,681 48.9% 2,791,607	48.9%	2,791,607	35.5%	4,607,282	61.0%	12,339,571	48.4%	401,818	49.2%	1,015,575	39.3%	13,756,965	47.6%
Industrial	697,512	6.9%	6.9% 3,362,813	42.8%	115,786	1.5%	4,176,110	16.4%	44,469	5.4%	502,840	19.5%	4,723,419	16.3%
Commercial	2,647,956	26.2%	988,654	12.6%	1,455,438	19.3%	5,092,048	20.0%	125,672	15.4%	518,219	20.1%	5,735,939	19.8%
Agriculture & Fisheries	3,515	0.0%	142,220	1.8%	195,110	2.6%	340,845	1.3%	29,849	3.7%	9,095	0.4%	379,789	1.3%
Hotels / Tourism	1,962	0.0%	12,053	0.2%	14,857	0.2%	28,872	0.1%	29,378	3.6%	2,371	0.1%	60,621	0.2%
Government	1,751,745	17.3%	543,057	6.9%	1,031,815	13.7%	3,326,616	13.0%	155,883	19.1%	418,792	16.2%	3,901,290	13.5%
Ministry of Defence	60,339	0.6%	18,057	0.2%	130,153	1.7%	208,548	0.8%	29,352	3.6%	116,550	4.5%	354,451	1.2%
2015 Totals	<b>10,103,710</b> 100.0% <b>7,858,460</b>	100.0%	7,858,460	100.0%	7,550,441	100.0%	100.0% <b>25,512,611</b>	100.0%	816,420	100.0%	2,583,442	100.0%	<b>28,912,474</b> 100.0%	.00.0%
% of Total Oman	34.9%		27.2%		26.1%		88.2%		2.8%		8.9%		100.0%	
Change in MWh 1,415,127	1,415,127		1,155,051		844,733		3,414,910		69,301		256,172		3,740,383	
Annual % Change	16.3%		17.2%		12.6%		15.5%		9.3%		11.0%		14.9%	



Customer Accounts, MWh Supplied and MWh per Account by System, Company and Tariff Category 2015

2015		Mai	Main Interconnected System (MIS)	ed System (M	IS)	Rural Systems	Dhofar System	
Tariff Category	Item	Muscat	Majan	Mazoon	Total MIS	RAEC	DPC	Total Oman
Residential	Accounts	235,318.0	143,753.0	275,047.0	654,118.0	23,134.0	70,584.0	747,836.0
Residential	MWh Supplied	4,940,681.2	2,791,607.5	4,607,282.5	12,339,571.2	401,818.1	1,015,575.3	13,756,964.7
Residential	MWh Supplied per Account	21.0	19.4	16.8	18.9	17.4	14.4	18.4
Industrial	Accounts	186.0	532.0	102.0	820.0	50.0	58.0	928.0
Industrial	MWh Supplied	697,511.8	3,362,812.8	115,785.9	4,176,110.4	44,469.4	502,839.6	4,723,419.4
Industrial	MWh Supplied per Account	3,750.1	6,321.1	1,135.2	5,092.8	889.4	8,669.6	5,089.9
Commercial	Accounts	65,397.0	41,442.0	73,367.0	180,206.0	6,119.0	16,549.0	202,874.0
Commercial	MWh Supplied	2,647,956.1	988,654.2	1,455,437.9	5,092,048.1	125,671.7	518,218.8	5,735,938.6
Commercial	MWh Supplied per Account	40.5	23.9	19.8	28.3	20.5	31.3	28.3
Agriculture & Fisheries	Accounts	178.0	3,679.0	3,660.0	7,517.0	394.0	103.0	8,014.0
Agriculture & Fisheries	MWh Supplied	3,515.4	142,219.8	195,109.6	340,844.8	29,848.8	9,095.5	379,789.1
Agriculture & Fisheries	MWh Supplied per Account	19.7	38.7	53.3	45.3	75.8	88.3	47.4
Hotels / Tourism	Accounts	53.0	364.0	79.0	496.0	64.0	84.0	644.0
Hotels / Tourism	MWh Supplied	1,961.7	12,052.9	14,857.4	28,872.0	29,377.6	2,371.2	60,620.8
Hotels / Tourism	MWh Supplied per Account	37.0	33.1	188.1	58.2	459.0	28.2	94.1
Government	Accounts	8,569.0	8,163.0	14,412.0	31,144.0	3,322.0	5,231.0	39,697.0
Government	MWh Supplied	1,751,744.6	543,056.8	1,031,814.8	3,326,616.1	155,882.5	418,791.6	3,901,290.3
Government	MWh Supplied per Account	204.4	66.5	71.6	106.8	46.9	80.1	98.3
Ministry of Defence	Accounts	102.0	72.0	49.0	223.0	104.0	109.0	436.0
Ministry of Defence	MWh Supplied	60,338.8	18,056.5	130,153.1	208,548.5	29,352.2	116,550.1	354,450.8
Ministry of Defence	MWh Supplied per Account	591.6	250.8	2,656.2	935.2	282.2	1,069.3	813.0
<b>Total Customer Accounts in 2015</b>	nts in 2015	309,803	198,005	366,716	874,524	33,187	92,718	1,000,429
Total MWh Supplied in 2015	י 2015	10,103,710	7,858,460	7,550,441	25,512,611	816,420	2,583,442	28,912,474
MWh Supplied per Account in 2015	count in 2015	32.6	39.7	20.6	29.2	24.6	27.9	28.9
% change MWh per Account from 2014	ccount from 2014	6.8%	10.5%	4.7%	7.2%	1.8%	0.7%	6.4%



Electricity Supply & Registered Accounts by Region & Company: 2014 and 2015

2014						
Region	Company	MWh Supplied	% Oman	Accounts	% Oman	MWh Supply per Account
Al Dahirah	Majan	790,356	3.1%	44,224	4.8%	17.9
Al Sharquia North	Mazoon	910,721	3.6%	62,634	6.8%	14.5
Al Sharquia South	Mazoon	1,179,747	4.7%	60,086	6.5%	19.6
Al Wusta	RAEC	296,148	1.2%	12,640	1.4%	23.4
Burami	Majan	669,014	2.7%	32,140	3.5%	20.8
Dakhliyah	Mazoon	1,870,177	7.4%	98,044	10.6%	19.1
Dhofar	DPC	2,327,270	9.2%	84,127	9.1%	27.7
	RAEC	162,498	0.6%	5,696	0.6%	28.5
Musandam	RAEC	288,473	1.1%	12,568	1.4%	23.0
Muscat	Muscat	8,688,583	34.5%	284,625	30.7%	30.5
North Batinah	Majan	5,244,039	20.8%	110,241	11.9%	47.6
South Batinah	Mazoon	2,745,064	10.9%	120,159	13.0%	22.8
Sultanate Totals 20	)14	25,172,090		927,184		27.1

#### 2015

Region	Company	MWh Supplied	% Oman	Accounts	% Oman	MWh Supply per Account
Al Dahirah	Majan	919,935	3.2%	47,028	4.7%	19.6
Al Sharquia North	Mazoon	1,030,116	3.6%	67,106	6.7%	15.4
Al Sharquia South	Mazoon	1,247,054	4.3%	64,239	6.4%	19.4
Al Wusta	RAEC	322,805	1.1%	13,635	1.4%	23.7
Burami	Majan	742,107	2.6%	33,777	3.4%	22.0
Dakhliyah	Mazoon	2,081,034	7.2%	106,249	10.6%	19.6
Dhofar	DPC	2,583,442	8.9%	92,718	9.3%	27.9
	RAEC	181,026	0.6%	6,286	0.6%	28.8
Musandam	RAEC	312,589	1.1%	13,266	1.3%	23.6
Muscat	Muscat	10,103,710	34.9%	309,803	31.0%	32.6
North Batinah	Majan	6,196,418	21.4%	117,200	11.7%	52.9
South Batinah	Mazoon	3,192,238	11.0%	129,122	12.9%	24.7
Sultanate Totals 20	015	28,912,474		1,000,429		28.9
Change from 2014 (%	6)	14.9%		7.9%		6.4%



#### Electricity Production by System: 2012 to 2015

2012	Elec	ctricity Produc	tion	
System	Gross MWh	% Year	Net MWh	% Year
Main Interconnected System	22,040,849	88.1%	21,619,110	88.4%
Rural Systems	605,204	2.4%	555,953	2.3%
Dhofar Power System	2,371,250	9.5%	2,269,347	9.3%
Total for 2012	25,017,303		24,444,411	
2013	Elec	ctricity Produc	tion	
System	Gross MWh	% Year	Net MWh	% Year
Main Interconnected System	22,922,968	87.4%	22,558,036	87.9%
Rural Systems	685,004	2.6%	635,315	2.5%
Dhofar Power System	2,632,050	10.0%	2,467,914	9.6%
Total for 2013	26,240,023		25,661,264	
2014	Elec	ctricity Produc	tion	
System	Gross MWh	% Year	Net MWh	% Year
Main Interconnected System	25,544,153	87.7%	24,993,101	88.2%
Rural Systems	756,712	2.6%	698,134	2.5%
Dhofar Power System	2,836,231	9.7%	2,651,662	9.4%
Total for 2014	29,137,095		28,342,898	
2015	Elec	ctricity Produc	tion	
System	Gross MWh	% Year	Net MWh	% Year
Main Interconnected System	28,772,266	87.8%	28,333,588	88.3%
Rural Systems	863,105	2.6%	807,022	2.5%
Dhofar Power System	3,122,649	9.5%	2,941,665	9.2%
Total for 2015	32,758,020		32,082,276	



Electricity Production by System and Company: 2014 & 2015

			Electricity	Production		
	2014	Gross MWh	% Oman	Net MWh	% Oman	
A:	Main Interconnected System					
	ACWA Power Barka SAOG	2,989,303	10.3%	2,746,364	9.7%	
	Al Batinah PC SAOC	3,722,410	12.8%	3,618,816	12.8%	
	Al Ghubrah SAOC	2,244,116	7.7%	2,094,154	7.4%	
	Al Kamil SAOG	1,252,347	4.3%	1,238,944	4.4%	
	Al Rusail SAOG	3,694,883	12.7%	3,665,728	12.9%	
	Al Suwadi PC SAOC	3,239,171	11.1%	3,140,095	11.1%	
	Phoenix Power Company SAOC	1,544,832	5.3%	1,542,617	5.4%	
	PWP purchases			530,198	1.9%	
	SMN Barka SAOG	1,418,843	4.9%	1,247,426	4.4%	
	Sohar Power Company SAOG	3,753,721	12.9%	3,497,347	12.3%	
	UPC Manah SAOG	1,110,785	3.8%	1,102,269	3.9%	
	Wadi Jizzi SAOC	573,741	2.0%	569,143	2.0%	
	MIS sub-total	25,544,153	87.7%	24,993,101	<b>88.2%</b>	
3:	Rural Systems					
	RAEC SAOC	756,712	2.6%	698,134	2.5%	
	Rural Systems sub-total	756,712	2.6%	698,134	2.5%	
::	Dhofar Power System					
	DGC SAOC	953,461	3.3%	940,687	3.3%	
	SembcorpSalalah SAOC	1,882,770	6.5%	1,710,975	6.0%	
	Dhofar System sub-total	2,836,231	<i>9.7%</i>	2,651,662	9.4%	
	Totals for 2014	29,137,095	100%	28,342,898	100%	
			Electricity	Production		
	2015	Gross MWh	% Oman	Net MWh	% Oman	
A:	Main Interconnected System ACWA Power Barka SAOG	3,332,758	10.2%	3,066,619	9.6%	
	Al Batinah PC SAOC	4,243,317	13.0%	4,156,640	13.0%	
	Al Ghubrah SAOC	1,950,878	6.0%	1,791,029	5.6%	
	Al Kamil SAOG	584,968	1.8%		1.8%	
				578,043		
	Al Rusail SAOG	3,682,283	11.2%	3,654,459	11.4%	
	Al Suwadi PC SAOC	3,928,018	12.0%	3,834,487	12.0%	
	Phoenix Power Company SAOC	4,390,644	13.4%	4,390,472	13.7%	
	PWP purchases	1 222 646	4.40	657,289	2.0%	
	SMN Barka SAOG	1,337,919	4.1%	1,151,492	3.6%	
	Sohar Power Company SAOG	3,602,622	11.0%	3,345,730	10.4%	
	UPC Manah SAOG	1,303,166	4.0%	1,293,871	4.0%	
	Wadi Jizzi SAOC	415,692	1.3%	413,458	1.3%	
	MIS sub-total	28,772,266	87.8%	28,333,588	88.3%	
	% change from 2014	12.6%		13.4%		
B:	Rural Systems	358	0.0%	222	0.0%	
	Pabuan Actonfied Color Device LLC		0.0%	332	0.0%	
	Bahwan Astonfied Solar Power LLC		2 601	006 601	2 50/	
	RAEC SAOC	862,747	2.6%	806,691	2.5%	
	RAEC SAOC Rural Systems sub-total	862,747 <b>863,105</b>	2.6% <b>2.6%</b>	806,691 <b>807,022</b>	2.5% <b>2.5%</b>	
	RAEC SAOC Rural Systems sub-total % change from 2014	862,747				
C:	RAEC SAOC Rural Systems sub-total % change from 2014 Dhofar Power System	862,747 863,105 14.1%	2.6%	807,022 15.6%	2.5%	
C:	RAEC SAOC Rural Systems sub-total % change from 2014 Dhofar Power System DGC SAOC	862,747 863,105 14.1% 1,079,521	<b>2.6%</b> 3.3%	807,022 15.6% 1,065,900	<b>2.5%</b> 3.3%	
C:	RAEC SAOC Rural Systems sub-total % change from 2014 Dhofar Power System DGC SAOC PWP purchases	862,747 863,105 14.1% 1,079,521 0	<b>2.6%</b> 3.3% 0.0%	<b>807,022</b> <b>15.6%</b> 1,065,900 2,429	<b>2.5%</b> 3.3% 0.0%	
0:	RAEC SAOC Rural Systems sub-total % change from 2014 Dhofar Power System DGC SAOC PWP purchases SembcorpSalalah SAOC	862,747 <b>863,105</b> <b>14.1%</b> 1,079,521 0 2,043,128	2.6% 3.3% 0.0% 6.2%	807,022 15.6% 1,065,900 2,429 1,873,337	2.5% 3.3% 0.0% 5.8%	
C:	RAEC SAOC Rural Systems sub-total % change from 2014 Dhofar Power System DGC SAOC PWP purchases	862,747 863,105 14.1% 1,079,521 0	<b>2.6%</b> 3.3% 0.0%	<b>807,022</b> <b>15.6%</b> 1,065,900 2,429	<b>2.5%</b> 3.3% 0.0%	
D:	RAEC SAOC Rural Systems sub-total % change from 2014 Dhofar Power System DGC SAOC PWP purchases SembcorpSalalah SAOC Dhofar System sub-total	862,747 863,105 14.1% 1,079,521 0 2,043,128 3,122,649	2.6% 3.3% 0.0% 6.2%	807,022 15.6% 1,065,900 2,429 1,873,337 2,941,665	2.5% 3.3% 0.0% 5.8%	
C:	RAEC SAOC Rural Systems sub-total % change from 2014 Dhofar Power System DGC SAOC PWP purchases SembcorpSalalah SAOC Dhofar System sub-total % change from 2014	862,747 863,105 14.1% 1,079,521 0 2,043,128 3,122,649 10.1%	2.6% 3.3% 0.0% 6.2% 9.5%	807,022 15.6% 1,065,900 2,429 1,873,337 2,941,665 10.9%	2.5% 3.3% 0.0% 5.8% 9.2%	

Electricity Production by Region: 2014 and 2015

2014		Electricit	y Production	
Region	MWh Gross	% Oman	MWh Net	% Oman
Al Dahirah	947	0.0%	894	0.0%
Al Sharqiya	2,871,063	9.9%	2,843,556	10.0%
Al Wusta	177,510	0.6%	160,016	0.6%
Dakhliyah	1,110,785	3.8%	1,102,269	3.9%
Dhofar	3,008,447	10.3%	2,813,455	9.9%
Musandam	332,155	1.1%	315,131	1.1%
Muscat	5,938,999	20.4%	5,774,074	20.4%
North Batinah	8,049,872	27.6%	8,199,617	28.9%
South Batinah	7,647,317	26.2%	7,133,885	25.2%
Totals for 2014	29,137,095		28,342,898	

2015		Electricit	ty Production	
Region	MWh Gross	% Oman	MWh Net	% Oman
Al Dahirah Change from 2014 (%)	1,282 <i>35.4%</i>	0.0%	1,246 <i>39.4%</i>	0.0%
Al Sharqiya Change from 2014 (%)	4,975,613 <i>73.3%</i>	15.2%	4,968,603 <i>74.7%</i>	15.5%
Al Wusta Change from 2014 (%)	296,646 <i>67.1%</i>	0.9%	280,177 <i>75.1%</i>	0.9%
Dakhliyah <i>Change from 2014 (%)</i>	1,303,166 <i>17.3%</i>	4.0%	1,293,871 <i>17.4%</i>	4.0%
Dhofar Change from 2014 (%)	3,329,614 <i>10.7%</i>	10.2%	3,140,597 <i>11.6%</i>	9.8%
Musandam Change from 2014 (%)	358,212 <i>7.8%</i>	1.1%	343,270 <i>8.9%</i>	1.1%
Muscat Change from 2014 (%)	5,633,161 <i>-5.1%</i>	17.2%	5,439,879 <i>-5.8%</i>	17.0%
North Batinah Change from 2014 (%)	8,261,631 2.6%	25.2%	8,562,036 <i>4.4%</i>	26.7%
South Batinah Change from 2014 (%)	8,598,695 <i>12.4%</i>	26.2%	8,052,598 <i>12.9%</i>	25.1%
Totals for 2015 Change from 2014 (%)	<b>32,758,020</b> <i>12.4%</i>		<b>32,082,276</b> 13.2%	

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



Electricity Production by Region and Company: 2014 and 2015

2014		El			
Region	Company	Gross MWh	% Oman	Net MWh	% Oman
Al Dahirah	RAEC SAOC	947	0.0%	894	0.0%
Al Sharqiva	Al Kamil SAOG	1,252,347	4.3%	1,238,944	4.4%
	Phoenix Power Company SAOC	1,544,832	5.3%	1,542,617	5.4%
	PWP purchases			201	0.0%
	RAEC SAOC	73,884	0.3%	61,795	0.2%
Al Wusta	PWP purchases			1,494	0.0%
	RAEC SAOC	177,510	0.6%	158,522	0.6%
Dakhlivah	UPC Manah SAOG	1,110,785	3.8%	1,102,269	3.9%
Dhofar	DGC SAOC	953,461	3.3%	940,687	3.3%
	RAEC SAOC	172,216	0.6%	161,793	0.6%
	SembcorpSalalah SAOC	1,882,770	6.5%	1,710,975	6.0%
Musandam	RAEC SAOC	332,155	1.1%	315,131	1.1%
Muscat	Al Ghubrah SAOC	2,244,116	7.7%	2,094,154	7.4%
	Al Rusail SAOG	3,694,883	12.7%	3,665,728	12.9%
	PWP purchases			14,192	0.1%
North Batina	h Al Batinah PC SAOC	3,722,410	12.8%	3,618,816	12.8%
	PWP purchases			514,311	1.8%
	Sohar Power Company SAOG	3,753,721	12.9%	3,497,347	12.3%
	Wadi Jizzi SAOC	573,741	2.0%	569,143	2.0%
South Batina	hACWA Power Barka SAOG	2,989,303	10.3%	2,746,364	9.7%
	Al Suwadi PC SAOC	3,239,171	11.1%	3,140,095	11.1%
	SMN Barka SAOG	1,418,843	4.9%	1,247,426	4.4%
Sultanate To	tals 2014	29,137,095		28,342,898	

2015		El	ectricity Prod	luction	
Region	Company	Gross MWh	% Oman	Net MWh	% Oman
Al Dahirah	RAEC SAOC	1,282	0.0%	1,246	0.0%
Al Sharqiya	Al Kamil SAOG	584,968	1.8%	578,043	1.8%
	Phoenix Power Company SAOC	4,390,644	13.4%	4,390,472	13.7%
	PWP purchases			88	0.0%
	RAEC SAOC				
Al Wusta	PWP purchases			16,601	0.1%
	RAEC SAOC	296,646	0.9%	263,576	0.8%
Dakhlivah	UPC Manah SAOG	1,303,166	4.0%	1,293,871	4.0%
Dhofar	Bahwan Astonfied Solar Power	358	0.0%	332	0.0%
	DGC SAOC	1,079,521	3.3%	1,065,900	3.3%
	PWP purchases	0	0.0%	2,429	0.0%
	RAEC SAOC	206,608	0.6%	198,600	0.6%
	SembcorpSalalah SAOC	2,043,128	6.2%	1,873,337	5.8%
Musandam	RAEC SAOC	358,212	1.1%	343,270	1.1%
Muscat	Al Ghubrah SAOC	1,950,878	6.0%	1,791,029	5.6%
	Al Rusail SAOG	3,682,283	11.2%	3,654,459	11.4%
	PWP purchases			-5,608	0.0%
North Batina	h Al Batinah PC SAOC	4,243,317	13.0%	4,156,640	13.0%
	PWP purchases			646,208	2.0%
	Sohar Power Company SAOG	3,602,622	11.0%	3,345,730	10.4%
	Wadi Jizzi SAOC	415,692	1.3%	413,458	1.3%
South Batina	hACWA Power Barka SAOG	3,332,758	10.2%	3,066,619	9.6%
	Al Suwadi PC SAOC	3,928,018	12.0%	3,834,487	12.0%
	SMN Barka SAOG	1,337,919	4.1%	1,151,492	3.6%
Sultanate To	tals 2015	32,758,020		32,082,276	
	Change from 2014 (%)	12.4%		13.2%	
		12		10.270	



## Table 9 i

#### Monthly Electricity Production by System: MIS 2012 to 2015

2012			Electricity Production				
System	Month	Gross GWh	% Year	Net GWh	% Year		
MIS	Jan-12	1,218.3	5.5%	1,137.3	5.3%		
MIS	Feb-12	1,146.7	5.2%	1,067.1	4.9%		
MIS	Mar-12	1,417.3	6.4%	1,357.0	6.3%		
MIS	Apr-12	1,651.9	7.5%	1,574.4	7.3%		
MIS	May-12	2,297.6	10.4%	2,283.2	10.6%		
MIS	Jun-12	2,361.8	10.7%	2,407.4	11.1%		
MIS	Jul-12	2,491.1	11.3%	2,555.7	11.8%		
MIS	Aug-12	2,453.4	11.1%	2,409.7	11.1%		
MIS	Sep-12	2,339.4	10.6%	2,239.4	10.4%		
MIS	Oct-12	1,828.1	8.3%	1,848.3	8.5%		
MIS	Nov-12	1,509.4	6.8%	1,488.3	6.9%		
MIS	Dec-12	1,325.9	6.0%	1,251.3	5.8%		
2012 Totals		22,040.8		21,619.1			

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



## Table 9 i

### Monthly Electricity Production by System: MIS 2012 to 2015

2014			Electricit	y 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	<i>%</i> 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 9 ii

#### Monthly Electricity Production by System: Rural Systems 2012 to 2015

2012			Electricity Production				
System	Month	Gross GWh	% Year	Net GWh	% Year		
Rural Systems	Jan-12	28.2	4.7%	25.0	4.5%		
Rural Systems	Feb-12	27.9	4.6%	24.9	4.5%		
Rural Systems	Mar-12	36.5	6.0%	33.1	6.0%		
Rural Systems	Apr-12	49.5	8.2%	45.5	8.2%		
Rural Systems	May-12	63.8	10.5%	58.9	10.6%		
Rural Systems	Jun-12	62.7	10.4%	58.0	10.4%		
Rural Systems	Jul-12	65.8	10.9%	60.7	10.9%		
Rural Systems	Aug-12	67.7	11.2%	62.7	11.3%		
Rural Systems	Sep-12	64.7	10.7%	60.1	10.8%		
Rural Systems	Oct-12	57.0	9.4%	52.7	9.5%		
Rural Systems	Nov-12	44.3	7.3%	40.5	7.3%		
Rural Systems	Dec-12	37.2	6.2%	33.8	6.1%		
2012 Totals		605.2		556.0			

2013			Electricit	Production	
System	Month	Gross GWh	% Year	Net GWh	% Year
Rural Systems	Jan-13	33.8	4.9%	30.2	4.8%
Rural Systems	Feb-13	32.8	4.8%	29.6	4.7%
Rural Systems	Mar-13	45.3	6.6%	41.6	6.5%
Rural Systems	Apr-13	57.7	8.4%	53.6	8.4%
Rural Systems	May-13	72.7	10.6%	68.3	10.7%
Rural Systems	Jun-13	70.4	10.3%	66.1	10.4%
Rural Systems	Jul-13	72.9	10.6%	68.3	10.7%
Rural Systems	Aug-13	70.9	10.4%	66.4	10.5%
Rural Systems	Sep-13	70.8	10.3%	66.2	10.4%
Rural Systems	Oct-13	67.2	9.8%	62.7	9.9%
Rural Systems	Nov-13	48.8	7.1%	44.7	7.0%
Rural Systems	Dec-13	41.6	6.1%	37.7	5.9%
2013 Totals		685.0		635.3	



## Table 9 ii

#### Monthly Electricity Production by System: Rural Systems 2012 to 2015

2014			Electricity Production				
System	Month	Gross GWh	% Year	Net GWh	% Year		
Rural Systems	Jan-14	35.9	4.7%	32.3	4.6%		
Rural Systems	Feb-14	35.0	4.6%	31.5	4.5%		
Rural Systems	Mar-14	48.2	6.4%	43.4	6.2%		
Rural Systems	Apr-14	64.5	8.5%	59.3	8.5%		
Rural Systems	May-14	78.7	10.4%	73.4	10.5%		
Rural Systems	Jun-14	79.1	10.5%	73.6	10.5%		
Rural Systems	Jul-14	83.3	11.0%	77.4	11.1%		
Rural Systems	Aug-14	78.5	10.4%	72.9	10.4%		
Rural Systems	Sep-14	78.9	10.4%	73.6	10.5%		
Rural Systems	Oct-14	74.6	9.9%	69.4	9.9%		
Rural Systems	Nov-14	54.5	7.2%	50.1	7.2%		
Rural Systems	Dec-14	45.5	6.0%	41.2	5.9%		
2014 Totals		756.7		698.1			

2015			Electricit	y Production	
System	Month	Gross GWh	% Year	Net GWh	% Year
Rural Systems	Jan-15	40.7	4.7%	36.5	4.5%
Rural Systems	Feb-15	41.9	4.9%	37.7	4.7%
Rural Systems	Mar-15	54.1	6.3%	49.5	6.1%
Rural Systems	Apr-15	74.5	8.6%	69.8	8.6%
Rural Systems	May-15	90.9	10.5%	85.6	10.6%
Rural Systems	Jun-15	91.9	10.6%	86.8	10.8%
Rural Systems	Jul-15	90.4	10.5%	85.2	10.6%
Rural Systems	Aug-15	89.4	10.4%	84.6	10.5%
Rural Systems	Sep-15	89.1	10.3%	84.5	10.5%
Rural Systems	Oct-15	86.6	10.0%	82.0	10.2%
Rural Systems	Nov-15	62.7	7.3%	58.4	7.2%
Rural Systems	Dec-15	50.9	5.9%	46.4	5.8%
2015 Totals		863.1		807.0	



## Table 9 iii

#### Monthly Electricity Production by System: Dhofar Power System 2012 to 2015

2012			Electricity Production				
System	Month	Gross GWh	% Year	Net GWh	% Year		
Dhofar Power System	Jan-12	143.4	6.0%	135.9	6.0%		
Dhofar Power System	Feb-12	144.3	6.1%	132.3	5.8%		
Dhofar Power System	Mar-12	175.0	7.4%	165.3	7.3%		
Dhofar Power System	Apr-12	208.2	8.8%	202.6	8.9%		
Dhofar Power System	May-12	232.1	9.8%	226.3	10.0%		
Dhofar Power System	Jun-12	244.7	10.3%	236.0	10.4%		
Dhofar Power System	Jul-12	217.4	9.2%	208.3	9.2%		
Dhofar Power System	Aug-12	202.9	8.6%	194.5	8.6%		
Dhofar Power System	Sep-12	213.7	9.0%	204.7	9.0%		
Dhofar Power System	Oct-12	213.9	9.0%	204.5	9.0%		
Dhofar Power System	Nov-12	189.4	8.0%	181.2	8.0%		
Dhofar Power System	Dec-12	186.2	7.9%	177.7	7.8%		
2012 Totals		2,371.2		2,269.3			

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



## Table 9 iii

#### Monthly Electricity Production by System: Dhofar Power System 2012 to 2015

2014			Electricit	y 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			Electric	ity 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 10 i

#### **Quarterly Electricity Production by System: 2012 to 2015**

		Electric	city Produ	oction	
System	Period	Gross GWh	% Year	Net GWh	% Year
MIS	Qtr 1-12	3,782.3	17.2%	3,561.3	16.5%
1IS	Qtr 2-12	6,311.3	28.6%	6,265.0	29.0%
1IS	Qtr 3-12	7,283.9	33.0%	7,204.8	33.3%
IS	Qtr 4-12	4,663.4	21.2%	4,587.9	21.2%
2012 Totals		22,040.8		21,619.1	
IS	Qtr 1-13	4,114.5	17.9%	3,906.3	17.3%
IS	Qtr 2-13	6,523.7	28.5%	6,441.7	28.6%
IS	Qtr 3-13	7,491.1	32.7%	7,442.7	33.0%
IS	Qtr 4-13	4,793.7	20.9%	4,767.4	21.1%
2013 Totals		22,923.0		22,558.0	
IS	Qtr 1-14	4,182.7	16.4%	3,962.5	15.9%
S	Qtr 2-14	7,546.5	29.5%	7,498.6	30.0%
5	Qtr 3-14	8,318.4	32.6%	8,253.8	33.0%
S	Qtr 4-14	5,496.7	21.5%	5,278.2	21.1%
2014 Totals		25,544.2		24,993.1	
S	Qtr 1-15	4,939.5	17.2%	4,701.6	16.6%
IS	Qtr 2-15	8,447.4	29.4%	8,353.2	29.5%
S	Qtr 3-15	9,082.2	31.6%	9,164.0	32.3%
5	Qtr 4-15	6,303.1	21.9%	6,114.8	21.6%
2015 Totals		28,772.3		28,333.6	



## Table 10 ii

#### **Quarterly Electricity Production by System: 2012 to 2015**

		Electric	city Produ	ction	
System	Period	Gross GWh	% Year	Net GWh	% Year
Rural Systems	Qtr 1-12	92.5	15.3%	83.1	14.9%
Rural Systems	Qtr 2-12	176.0	29.1%	162.4	29.2%
Rural Systems	Qtr 3-12	198.2	32.7%	183.4	33.0%
Rural Systems	Qtr 4-12	138.5	22.9%	127.0	22.8%
2012 Totals		605.2		556.0	
Rural Systems	Qtr 1-13	112.0	16.3%	101.4	16.0%
Rural Systems	Qtr 2-13	200.8	29.3%	187.9	29.6%
Rural Systems	Qtr 3-13	214.6	31.3%	200.9	31.6%
Rural Systems	Qtr 4-13	157.6	23.0%	145.1	22.8%
2013 Totals		685.0		635.3	
Rural Systems	Qtr 1-14	119.1	15.7%	107.3	15.4%
Rural Systems	Qtr 2-14	222.3	29.4%	206.3	29.5%
Rural Systems	Qtr 3-14	240.8	31.8%	223.9	32.1%
Rural Systems	Qtr 4-14	174.6	23.1%	160.7	23.0%
2014 Totals		756.7		698.1	
Rural Systems	Qtr 1-15	136.7	15.8%	123.7	15.3%
Rural Systems	Qtr 2-15	257.4	29.8%	242.2	30.0%
Rural Systems	Qtr 3-15	268.9	31.2%	254.3	31.5%
Rural Systems	Qtr 4-15	200.2	23.2%	186.8	23.2%
2015 Totals		863.1		807.0	



## Table 10 iii

#### **Quarterly Electricity Production by System: 2012 to 2015**

		Electric	city Produ	ction	
System	Period	Gross GWh	% Year	Net GWh	% Year
Dhofar Power System	Qtr 1-12	462.7	19.5%	433.6	19.1%
Dhofar Power System	Qtr 2-12	685.1	28.9%	664.9	29.3%
Dhofar Power System	Qtr 3-12	633.9	26.7%	607.5	26.8%
Dhofar Power System	Qtr 4-12	589.5	24.9%	563.3	24.8%
2012 Totals		2,371.2		2,269.3	
Dhofar Power System	Qtr 1-13	511.2	19.4%	488.2	19.8%
Dhofar Power System	Qtr 2-13	778.3	29.6%	734.0	29.7%
Dhofar Power System	Qtr 3-13	684.1	26.0%	636.1	25.8%
Dhofar Power System	Qtr 4-13	658.6	25.0%	609.6	24.7%
2013 Totals		2,632.1		2,467.9	
Dhofar Power System	Qtr 1-14	562.8	19.8%	519.2	19.6%
Dhofar Power System	Qtr 2-14	837.0	29.5%	786.7	29.7%
Dhofar Power System	Qtr 3-14	739.5	26.1%	694.2	26.2%
Dhofar Power System	Qtr 4-14	696.9	24.6%	651.5	24.6%
2014 Totals		2,836.2		2,651.7	
Dhofar Power System	Qtr 1-15	602.5	19.3%	559.0	19.0%
Dhofar Power System	Qtr 2-15	911.1	29.2%	862.7	29.3%
Dhofar Power System	Qtr 3-15	840.1	26.9%	793.8	27.0%
Dhofar Power System	Qtr 4-15	769.0	24.6%	726.2	24.7%
2015 Totals		3,122.6		2,941.7	

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# Table 11

RAFC Canacity System Deak demands Electricity and Water Droduction and Fuel consumption by Region

2015	2015 System Peak Demands, Prod			Genera	Generating Capac	city	Water Capacity	acity		Sy	stem Pea	k Demand	s, Producti	System Peak Demands, Production & Fuel Consumption	Consumptio	Ę
RSNum	Facility	Type	Start Year	Installed kW	Installed Derated kw kw	Num units	Installed m3/day	Num units	Bef SC	System Peak kW	Demand margin 1	Gross MWh	Net MWh	Gross 000'm3	Net 000'm3	Diesel 000'Ltrs
Al Dahirah	rah															
02/020	02/020 Masrood	Electricity	1994	1,760	1,408	4			50oC	340	75.9%	1,282	1,246			457
	Totals for 1 S	Systems in Al Dahirah	ahirah	1,760	1,408	4						1,282	1,246			457
Al Sharqiya	qiya															
02/019	Masirah	Cogen	1976	13,795	10,940	6	6,100	10	50oC	13,470	-23.1%	68,979	57,289	1,319	1,179	19,489
	Totals for 1 S	Totals for 1 Systems in Al Sharqiya	harqiya	13,795	10,940	6	6,100	10				68,979	57,289	1,319	1,179	19,489
Al Wusta	đ															
02/001	AbuMudabi	Cogen	1985	699	535	7	200	с	50oC					41	40	0
02/027	Sawgrah	Cogen	1998	584	467	m	250	2	50oC					40	40	0
02/037	Al Duqm (new)	) Cogen	2010	66,326	51,745	6	6,000	m	50oC	23,100	55.4%	119,970	102,369	1,297	1,265	30,404
02/005	Al Khaluf	Electricity	2007	2,508	1,880	m			50oC	785	58.2%	3,278	3,134			1,047
02/006	Al Khuiaima	Electricity	2004	5,432	3,900	9			50oC	2,350	39.7%	9,703	9,402			2,749
02/008	Alajaiz	Electricity	2006	1,130	904	4			50oC	930	-2.9%	1,242	1,160			407
02/010	AlNajdah	Electricity	2007	2,200	1,760	m			50oC	1,205	31.5%	4,393	4,281			1,423
02/016	Hij	Electricity	1999	11,600	8,930	7			50oC	10,950	-22.6%	42,931	42,625			12,443
02/017	Hitam	Electricity	2007	2,932	2,300	9			50oC	1,180	48.7%	5,417	5,108			1,752
02/025	Ras Madraka	Electricity	2000	1,780	1,424	4			50oC	2,510	-76.3%	6,805	6,638			2,116
02/030	Surab	Electricity	2006	3,200	2,460	4			50oC	1,605	34.8%	6,431	6,296			2,113
02/045	Dhafrat	Electricity	2009	1,860	1,488	4			50oC	1,170	21.4%	3,516	3,334			1,347
02/046	AI Khadra	Electricity	2011	12,676	9,400	IJ			50oC	5,000	46.8%	23,981	21,941			7,057
	Totals for 13	Systems in AI Wusta	Wusta	112,897	87,193	65	6,450	ø				227,667	206,287	1,378	1,345	62,859

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## Table 11

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

System Peak Demands, Production & Fuel Consumption

Installed Derated Num Installed Num Generating Capacity Water Capacity

2015

				Installed Derated	Derated		Installed		0							
RSNum	Facility	Type	Start Year	kW	kW	Num units	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	1,242	4	144	с	50oC	405	67.4%	1,872	1,365	34	34	577
01/002	Al Mathfa	Electricity	2002	660	495	4			50oC	215	56.6%	700	695			307
01/004	Andat	Electricity	2011	1,512	1,210	4			50oC	942	22.1%	3,273	3,265			1,162
01/007	Ayun	Electricity	2000	720	572	ო			50oC	215	62.4%	706	691			281
01/008	Barbazum	Electricity	2000	1,188	950	4			50oC	584	38.6%	2,329	2,312			714
01/012	Dhahabun	Electricity	2000	3,389	2,711	9			50oC	1,622	40.2%	6,235	6,218			1,921
01/014	Fatkhat	Electricity	2002	532	426	m			50oC	230	46.0%	939	931			339
01/016	Hirweeb	Electricity	2001	1,875	1,500	9			50oC	1,070	28.7%	3,414	3,385			1,205
01/019	Mahwice	Electricity	2002	370	296	m			50oC			773	765			252
01/020	Maqshan	Electricity	2001	2,288	1,830	9			50oC	710	61.2%	2,729	2,682			888
01/021	Mazyunah	Electricity	2000	9,000	7,200	9			50oC	6,620	8.1%	27,273	25,157			7,434
01/023	Mitan	Electricity	2001	2,237	1,790	ഹ			50oC	096	46.4%	3,675	3,653			1,193
01/024	Mothorah	Electricity	2006	1,100	880	4			50oC	390	55.7%	1,776	1,721			717
01/032	Saih Alkirat	Electricity	2006	16,200	10,900	6			50oC	15,960	-46.4%	92,790	89,362			26,484
01/035	Shahb Asayb	Electricity	2000	11,069	8,800	7			50oC	7,860	10.7%	37,099	36,294			9,798
01/037	Sharbatat	Electricity	1998	3,472	2,774	IJ			50oC	1,370	50.6%	4,995	4,928			1,564
01/040	Tushnat	Electricity	2015	006	720	4			50oC	356	50.6%	1,361	1,342			420
01/046	Mudhai (new)	Electricity	2011	3,872	3,004	9			50oC	1,830	39.1%	7,552	7,082			2,265
01/047	Hasik (new)	Electricity	2012	5,000	4,000	9			50oC	1,677	58.1%	7,115	6,752			2,002
	Totals for 19 Systems in Dhofar	Systems in Dh	ofar	66,949	51,300	95	144	m				206,608	198,600	34	34	59,523



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## **Table 11**

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

2015				Generat	Generating Capad	city	Water Capacit	pacity		Ś	ystem Pea	k Demands	s, Product	iystem Peak Demands, Production & Fuel Consumpti	Consumpti	u
RSNum	Facility	Type	Start Year	Installed Derated kW kW	Derated kW	Num units	Installed m3/day	Num units	@ SC	System Peak kW	Demand margin 1	Gross MWh	Net MWh	Gross 000'm3	Net 000'm3	Diesel 000'Ltrs
:																
Musandam	lam															
03/006 Kumzar	Kumzar	Cogen	1984	468	374	1	450	Μ	50oC					71	70	0

71				71	2,802
	87,200	230,653	25,417	343,270	806,691
	89,081	241,887	27,244	358,212	862,747
	-147.0%	-26.7%	17.0%		
	20,900	51,700	6,640		
50oC	50oC	50oC	50oC		
m				m	24
450				450	13,144
H	9	11	9	24	197
374	8,460	40,820	8,000	57,654	208,495
468	12,970	55,630	10,000	79,068	274,469
1984	1978	1982	1982	sandam	Systems
Cogen	Electricity	Electricity	Electricity	stems in Mu	Production
Kumzar	Dibba	Khasab	Madha	Totals for 4 Systems in Musandam	<b>Totals for 38 RAEC Production Systems</b>
03/006	03/002	03/005	03/007 Madha	-	Totals

note 1 Rental generation supported systems with negative demand margins.

8,466 **97,498** 

70

239,825

2,627

24,960 64,072

	Genera	Generating Capacity	city	Water Capacity	pacity
2015 Regional Summary	Installed Derated kW kW	Derated kW	Num units	Installed m3/day	Num units
Totals for 1 RAEC System in Al Dahirah	1,760	1,408	4		
Totals for 1 RAEC Systems in Al Sharqiya	13,795	10,940	6	6,100	10
Totals for 13 RAEC Systems in Al Wusta	112,897	87,193	65	6,450	00
Totals for 19 RAEC Systems in Dhofar	66,949	51,300	95	144	m
Totals for 4 RAEC Systems in Musandam	79,068	57,654	24	450	ω
Totals for 38 RAEC Production System	274,469	274,469 208,495	197	13,144	24

	Production & Fuel Consumption	& Fuel Con	sumption	
Gross MWh	Net MWh	Gross 000'm3	Net 000'm3	Diesel 000'Ltrs
1,282	1,246			457
68,979	57,289	1,319	1,179	19,489
227,667	206,287	1,378	1,345	62,859
206,608	198,600	34	34	59,523
358,212	343,270	71	70	97,498
862,747	806,691	2,802	2,627	239,825



Technical and non-technical Losses by System: 2008 to 2015

			Main	Intercon	nected S	ystem			% Changes
GWh	2008	2009	2010	2011	2012	2013	2014	2015	2014-2015
Sent out Generation:	13,649.0	15,530.2	16,552.4	18,385.5	21,022.7	21,998.3	24,462.9	27,676.3	13.1%
'Other' Purchases (note 1):	385.0	188.6	302.6	564.8	596.4	559.7	530.2	657.3	24.0%
GWh entering systems:	14,034.0	15,718.8	16,855.0	18,950.3	21,619.1	22,558.0	24,993.1	28,333.6	13.4%
Supply to Customers:	11,317.4	12,713.6	14,121.6	16,374.5	18,502.2	20,021.0	22,097.7	25,512.6	15.5%
Total Losses %	19.4%	19.1%	16.2%	13.6%	14.4%	11.2%	11.6%	10.0%	-1.6%pp

		Rural Systems					% Changes		
GWh	2008	2009	2010	2011	2012	2013	2014	2015	2014-2015
Sent out Generation:	325.8	370.2	412.8	470.1	556.0	635.3	698.1	806.7	15.5%
'Other' Purchases (note 1):	33.5	40.2	48.7	59.9	74.7	94.3	124.7	107.4	-13.9%
GWh entering systems:	359.3	410.5	461.5	530.0	630.7	729.6	822.8	914.1	11.1%
Supply to Customers (note 2):	311.5	368.0	420.1	468.9	559.4	650.9	747.1	816.4	9.3%
Total Losses %	13.3%	10.3%	9.0%	11.5%	11.3%	10.8%	9.2%	10.7%	1.5%pp

		Dhofar Power System						% Changes	
GWh	2008	2009	2010	2011	2012	2013	2014	2015	2014-2015
Sent out Generation:	1,467.1	1,688.4	1,819.0	1,907.3	2,269.3	2,467.9	2,651.7	2,941.7	10.9%
'Other' Purchases (note 1):	2.1	45.7	72.4	26.4	0.0	0.0	0.0	2.4	n/a
GWh entering systems:	1,469.2	1,734.1	1,891.4	1,933.7	2,269.3	2,467.9	2,651.7	2,944.1	11.0%
Supply to Customers:	1,221.2	1,401.5	1,590.8	1,668.9	1,896.6	2,118.8	2,327.3	2,583.4	11.0%
Total Losses %	<b>16.9</b> %	<b>19.2%</b>	15.9%	13.7%	16.4%	14.1%	12.2%	12.3%	0.02% pp

Note 1: MIS "Other" purchases are PWP purchases from MIS connected Exemption Holders, Rental Generation and Interconnection with UAE; Rural Systems Other purchases are purchases from PDO and Bahwan Aston Field Solar Power LLC; and Dhofar Other purchases are units purchased by PWP from RAEC for Sale to DPC SAOC and PDO.

Note 2: RAEC Supply includes unallocated 'Other' Supply reported in 2014 SCRC statement.



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Water Sector Statistics

#### Water Production by Zone: 2012 to 2015

2012	Wat	er Productio	on	
Zone	Gross m3	% Year	Net m3	% Year
Interconnected & Sharqiyah Zones	140,204,702	98.6%	136,467,062	98.6%
Rural Zones	1,985,725	1.4%	1,870,628	1.4%
Dhofar Zone				
Total for 2012	142,190,427		138,337,6	90
2013	Wat	er Productio	on	
Zone	Gross m3	% Year	Net m3	% Year
nterconnected & Sharqiyah Zones	146,511,925	88.5%	142,563,235	88.3%
Rural Zones	2,291,035	1.4%	2,160,352	1.3%
Dhofar Zone	16,753,619	10.1%	16,753,619	10.4%
Fotal for 2013	165,556,579		161,477,2	06
2014	Wat	er Productio	on	
Zone	Gross m3	% Year	Net m3	% Year
nterconnected & 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		207,862,5	92
2015	Wat	er Productio	on	
Zone	Gross m3	% Year	Net m3	% Year
nterconnected & 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%
Fotal for 2015	249,532,266		246,322,8	17



Water Production by Zone and Company: 2014 & 2015

2014	Water Production					
	Gross m3	% Oman	Net m3	% Oman		
Interconnected & Sharqiyah Zones						
ACWA Power Barka SAOG	40,242,806	19.1%	40,128,046	19.3%		
Al Ghubrah SAOC	51,234,007	24.3%	50,380,244	24.2%		
SMN Barka SAOG	42,794,836	20.3%	42,679,362	20.5%		
Sohar Power Company SAOG	50,703,696	24.0%	48,785,642	23.5%		
ISZ sub-total	184,975,345	87.7%	181,973,294	87.5%		
Rural Zones						
RAEC SAOC	2,397,487	1.1%	2,236,582	1.1%		
Rural Zones sub-total	2,397,487	1.1%	2,236,582	1.1%		
Dhofar Zone						
SembcorpSalalah SAOC	23,652,716	11.2%	23,652,716	11.4%		
Dhofar Zone sub-total	23,652,716	11.2%	23,652,716	11.4%		
Totals for 2014	211,025,548	100%	207,862,592	100%		
2015		Water Pro	duction			
	Gross m3	% Oman	Net m3	% Oman		
Interconnected & Sharqiyah Zones						
ACWA Power Barka SAOG	49,920,039	20.0%	49,786,907	20.2%		
Al Ghubrah SAOC	42,935,802	17.2%	42,144,509	17.1%		
Muscat City Desalination Company SAOC	11,609,566	4.7%	11,609,566	4.7%		
Sharqiyah Desalination Company SAOG	27,519,744	11.0%	27,462,520	11.1%		
SMN Barka SAOG	43,229,610	17.3%	43,100,670	17.5%		
Sohar Power Company SAOG	49,711,949	19.9%	47,787,492	19.4%		
I <mark>SZ sub-total</mark> % change from 2014	224,926,710	90.1%	221,891,664	90.1%		
Rural Zones						
RAEC SAOC	2,801,593	1.1%	2,627,190	1.1%		
Rural Zones sub-total % change from 2014	2,801,593 16.9%	1.1%	<b>2,627,190</b> 17.5%	1.1%		
Dhofar Zone						
SembcorpSalalah SAOC	21,803,963	8.7%	21,803,963	8.9%		
Dhofar Zone sub-total	21,803,963	8.7%	21,803,963	8.9%		
% change from 2014	-7.8%		-7.8%			
Totals for 2015	249,532,266	100%	246,322,817	100%		
Actual change from 2014	38,506,718		38,460,225			
% change from 2014	18.2%		18.5%			

### Water Production by Region: 2014 and 2015

2014		Water Production						
Region	m3 Gross	% Oman	m3 Net	% Oman				
Al Sharqiya	1,231,519	0.6%	1,114,454	0.5%				
Al Wusta	1,027,622	0.5%	986,184	0.5%				
Dhofar	23,693,655	11.2%	23,693,176	11.4%				
Musandam	97,407	0.0%	95,484	0.0%				
Muscat	51,234,007	24.3%	50,380,244	24.2%				
North Batinah	50,703,696	24.0%	48,785,642	23.5%				
South Batinah	83,037,642	39.3%	82,807,408	39.8%				
Totals for 2014	211,025,548		207,862,592					

2015		Water P	roduction	
Region	m3 Gross	% Oman	m3 Net	% Oman
Al Sharqiya Change from 2014 (%)	27,519,744 <i>2134.6%</i>	11.0%	27,462,520 2364.2%	11.1%
Al Wusta Change from 2014 (%)	2,696,472 <i>162.4%</i>	1.1%	2,523,574 <i>155.9%</i>	1.0%
Dhofar Change from 2014 (%)	21,838,044 <i>-7.8%</i>	8.8%	21,837,641 <i>-7.8%</i>	8.9%
Musandam <i>Change from 2014 (%)</i>	71,040 <i>-27.1%</i>	0.0%	69,938 <i>-26.8%</i>	0.0%
Muscat Change from 2014 (%)	54,545,368 <i>6.5%</i>	21.9%	53,754,075 <i>6.7%</i>	21.8%
North Batinah Change from 2014 (%)	49,711,949 <i>-2.0%</i>	19.9%	47,787,492 <i>-2.0%</i>	19.4%
South Batinah <i>Change from 2014 (%)</i>	93,149,649 <i>12.2%</i>	37.3%	92,887,577 <i>12.2%</i>	37.7%
Totals for 2015 Change from 2014 (%)	<b>249,532,266</b> <i>18.2%</i>		<b>246,322,817</b> <i>18.5%</i>	



#### Water Production by Region and Company: 2014 and 2015

2014			Water	Production	
Region	Company	Gross m3	% Oman	Net m3	% Oman
Al Sharqiya	RAEC SAOC	1,231,519	0.6%	1,114,454	0.5%
Al Wusta	RAEC SAOC	1,027,622	0.5%	986,184	0.5%
Dhofar	RAEC SAOC	40,939	0.0%	40,460	0.0%
	SembcorpSalalah SAOC	23,652,716	11.2%	23,652,716	11.4%
Musandam	RAEC SAOC	97,407	0.0%	95,484	0.0%
Muscat	Al Ghubrah SAOC	51,234,007	24.3%	50,380,244	24.2%
North Batinah	Sohar Power Company SAOG	50,703,696	24.0%	48,785,642	23.5%
South Batinah	ACWA Power Barka SAOG	40,242,806	19.1%	40,128,046	19.3%
	SMN Barka SAOG	42,794,836	20.3%	42,679,362	20.5%
Sultanate Totals 2	2014	211,025,548		207,862,592	

2015			Water	Production	
Region	Company	Gross m3	% Oman	Net m3	% Oman
Al Sharqiya	RAEC SAOC				
	Sharaivah Desalination Compa	27,519,744	11.0%	27,462,520	11.1%
Al Wusta	RAEC SAOC	2,696,472	1.1%	2,523,574	1.0%
Dhofar	RAEC SAOC	34,081	0.0%	33,678	0.0%
	SembcorpSalalah SAOC	21,803,963	8.7%	21,803,963	8.9%
Musandam	RAEC SAOC	71,040	0.0%	69,938	0.0%
Muscat	Al Ghubrah SAOC	42,935,802	17.2%	42,144,509	17.1%
	Muscat City Desalination Comp	11,609,566	4.7%	11,609,566	4.7%
North Batinah	Sohar Power Company SAOG	49,711,949	19.9%	47,787,492	19.4%
South Batinah	ACWA Power Barka SAOG	49,920,039	20.0%	49,786,907	20.2%
	SMN Barka SAOG	43,229,610	17.3%	43,100,670	17.5%
Sultanate Totals 2015		249,532,266		246,322,817	
Change from 2014 (%)		18.2%		18.5%	



## Table 5 i

#### Monthly Water Production by Zone: Interconnected & Sharqiyah Zone 2012 to 2015

2012		Water	Production		
Zone	Month	Gross '000 m3	% Year	Net '000 m3	% Year
Interconnected & Sharqiyah Zone	Jan-12	9,447.4	6.7%	9,261.4	6.8%
Interconnected & Sharqiyah Zone	Feb-12	10,102.9	7.2%	9,864.0	7.2%
Interconnected & Sharqiyah Zone	Mar-12	11,566.9	8.3%	11,330.0	8.3%
Interconnected & Sharqiyah Zone	Apr-12	11,665.0	8.3%	11,362.0	8.3%
Interconnected & Sharqiyah Zone	May-12	12,515.5	8.9%	12,065.2	8.8%
Interconnected & Sharqiyah Zone	Jun-12	12,252.1	8.7%	11,799.5	8.6%
Interconnected & Sharqiyah Zone	Jul-12	12,647.2	9.0%	12,317.8	9.0%
Interconnected & Sharqiyah Zone	Aug-12	12,632.7	9.0%	12,339.6	9.0%
Interconnected & Sharqiyah Zone	Sep-12	12,386.7	8.8%	12,125.7	8.9%
Interconnected & Sharqiyah Zone	Oct-12	12,114.0	8.6%	11,677.5	8.6%
Interconnected & Sharqiyah Zone	Nov-12	11,742.8	8.4%	11,440.5	8.4%
Interconnected & Sharqiyah Zone	Dec-12	11,131.6	7.9%	10,883.9	8.0%
2012 Totals		140,204.7		136,467.1	

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



## Table 5 i

#### Monthly Water Production by Zone: Interconnected & Sharqiyah Zone 2012 to 2015

2014		Water	Production	1	
Zone	Month	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		Water	Production		
Zone	Month	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 5 ii

#### Monthly Water Production by Zone: Rural Zone 2012 to 2015

2012		Water Production				
Zone	Month	Gross '000 m3	% Year	Net '000 m3	% Year	
Rural Zone	Jan-12	155.0	7.8%	143.3	7.7%	
Rural Zone	Feb-12	141.4	7.1%	127.0	6.8%	
Rural Zone	Mar-12	155.0	7.8%	142.0	7.6%	
Rural Zone	Apr-12	149.3	7.5%	138.8	7.4%	
Rural Zone	May-12	145.8	7.3%	144.0	7.7%	
Rural Zone	Jun-12	150.5	7.6%	144.4	7.7%	
Rural Zone	Jul-12	170.5	8.6%	160.9	8.6%	
Rural Zone	Aug-12	186.1	9.4%	175.7	9.4%	
Rural Zone	Sep-12	179.1	9.0%	168.6	9.0%	
Rural Zone	Oct-12	182.3	9.2%	172.9	9.2%	
Rural Zone	Nov-12	186.2	9.4%	176.9	9.5%	
Rural Zone	Dec-12	184.5	9.3%	176.1	9.4%	
2012 Totals		1,985.7		1,870.6		

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



## Table 5 ii

### Monthly Water Production by Zone: Rural Zone 2012 to 2015

2014		Water Production				
Zone	Month	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		Water	Production		
Zone	Month	Gross '000 m3	% Year	Net '000 m3	% Year
Rural Zone	Jan-15	197.4	7.0%	187.9	7.2%
Rural Zone	Feb-15	190.5	6.8%	186.1	7.1%
Rural Zone	Mar-15	214.3	7.6%	191.7	7.3%
Rural Zone	Apr-15	231.1	8.2%	210.5	8.0%
Rural Zone	May-15	244.3	8.7%	234.1	8.9%
Rural Zone	Jun-15	236.9	8.5%	221.5	8.4%
Rural Zone	Jul-15	228.9	8.2%	218.5	8.3%
Rural Zone	Aug-15	223.7	8.0%	210.0	8.0%
Rural Zone	Sep-15	245.1	8.7%	235.8	9.0%
Rural Zone	Oct-15	252.2	9.0%	232.5	8.8%
Rural Zone	Nov-15	264.4	9.4%	239.9	9.1%
Rural Zone	Dec-15	272.7	9.7%	258.6	9.8%
2015 Totals		2,801.6		2,627.2	





## Table 5 iii

#### Monthly Water Production by Zone: Dhofar Zone 2012 to 2015

	Water Production				
Month	Gross '000 m3	% Year	Net '000 m3	% Year	
Jan-12					
Feb-12					
Mar-12					
Apr-12					
May-12					
Jun-12					
Jul-12					
Aug-12					
Sep-12					
Oct-12					
Nov-12					
Dec-12					
	Jan-12 Feb-12 Mar-12 Apr-12 May-12 Jun-12 Jul-12 Aug-12 Sep-12 Oct-12 Nov-12	Month       Gross 000 m3         Jan-12       -         Feb-12       -         Mar-12       -         Mar-12       -         Apr-12       -         Jun-12       -         Jul-12       -         Aug-12       -         Sep-12       -         Oct-12       -         Nov-12       -	Month         Gross 000 m3         % Year           Jan-12         - </td <td>Month         Gross 000 m3         % Year         Net 000 m3           Jan-12         -</td>	Month         Gross 000 m3         % Year         Net 000 m3           Jan-12         -	

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



## Table 5 iii

### Monthly Water Production by Zone: Dhofar Zone 2012 to 2015

2014		Water Production				
Zone	Month	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		Water	Production		
Zone	Month	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 6 i

# **Quarterly Water Production by Zone: 2012 to 2015**

			Wa	nter Producti	on
Zone	Period	Gross '000 m3	% Year	Net '000 m3	% Year
Interconnected & Sharqiyah Zones	Qtr 1-12	31,117.2	22.2%	30,455.3	22.3%
Interconnected & Sharqiyah Zones	Qtr 2-12	36,432.6	26.0%	35,226.7	25.8%
Interconnected & Sharqiyah Zones	Qtr 3-12	37,666.5	26.9%	36,783.1	27.0%
Interconnected & Sharqiyah Zones	Qtr 4-12	34,988.4	25.0%	34,001.9	24.9%
2012 Totals		140,204.7		136,467.1	
Interconnected & Sharqiyah Zones	Qtr 1-13	33,843.7	23.1%	32,940.0	23.1%
Interconnected & Sharqiyah Zones	Qtr 2-13	37,916.1	25.9%	36,932.9	25.9%
Interconnected & Sharqiyah Zones	Qtr 3-13	38,797.4	26.5%	37,754.5	26.5%
Interconnected & Sharqiyah Zones	Qtr 4-13	35,954.7	24.5%	34,935.8	24.5%
2013 Totals		146,511.9		142,563.2	
Interconnected & Sharqiyah Zones	Qtr 1-14	40,252.8	21.8%	39,432.9	21.7%
Interconnected & Sharqiyah Zones	Qtr 2-14	46,981.6	25.4%	46,281.1	25.4%
Interconnected & Sharqiyah Zones	Qtr 3-14	49,923.9	27.0%	49,135.0	27.0%
Interconnected & Sharqiyah Zones	Qtr 4-14	47,817.1	25.9%	47,124.3	25.9%
2014 Totals		184,975.3		181,973.3	
Interconnected & Sharqiyah Zones	Qtr 1-15	51,647.7	23.0%	50,911.8	22.9%
Interconnected & Sharqiyah Zones	Qtr 2-15	54,029.6	24.0%	53,171.3	24.0%
Interconnected & Sharqiyah Zones	Qtr 3-15	58,987.4	26.2%	58,237.1	26.2%
Interconnected & Sharqiyah Zones	Qtr 4-15	60,262.0	26.8%	59,571.5	26.8%
2015 Totals		224,926.7		221,891.7	



# Table 6 ii

## **Quarterly Water Production by Zone: 2012 to 2015**

			Wa	ter Producti	ion
Zone	Period	Gross '000 m3	% Year	Net '000 m3	% Year
Rural Zones	Qtr 1-12	451.4	22.7%	412.3	22.0%
Rural Zones	Qtr 2-12	445.7	22.4%	427.3	22.8%
Rural Zones	Qtr 3-12	535.7	27.0%	505.1	27.0%
Rural Zones	Qtr 4-12	553.0	27.8%	525.9	28.1%
2012 Totals		1,985.7		1,870.6	
Rural Zones	Qtr 1-13	560.0	24.4%	527.3	24.4%
Rural Zones	Qtr 2-13	583.7	25.5%	550.7	25.5%
Rural Zones	Qtr 3-13	564.3	24.6%	532.2	24.6%
Rural Zones	Qtr 4-13	583.1	25.4%	550.1	25.5%
2013 Totals		2,291.0		2,160.4	
Rural Zones	Qtr 1-14	559.6	23.3%	519.2	23.2%
Rural Zones	Qtr 2-14	649.1	27.1%	584.6	26.1%
Rural Zones	Qtr 3-14	608.8	25.4%	569.0	25.4%
Rural Zones	Qtr 4-14	580.0	24.2%	563.7	25.2%
2014 Totals		2,397.5		2,236.6	
Rural Zones	Qtr 1-15	602.2	21.5%	565.7	21.5%
Rural Zones	Qtr 2-15	712.4	25.4%	666.1	25.4%
Rural Zones	Qtr 3-15	697.7	24.9%	664.3	25.3%
Rural Zones	Qtr 4-15	789.3	28.2%	731.1	27.8%
2015 Totals		2,801.6		2,627.2	



# Table 6 iii

# **Quarterly Water Production by Zone: 2012 to 2015**

			Wa	ter Producti	on
Zone	Period	Gross '000 m3	% Year	Net '000 m3	% Year
Dhofar Zone	Qtr 1-12				
Dhofar Zone	Qtr 2-12				
Dhofar Zone	Qtr 3-12				
Dhofar Zone	Qtr 4-12				
2012 Totals					
Dhofar Zone	Qtr 1-13	565.3	3.4%	565.3	3.4%
Dhofar Zone	Qtr 2-13	4,427.8	26.4%	4,427.8	26.4%
Dhofar Zone	Qtr 3-13	5,810.7	34.7%	5,810.7	34.7%
Dhofar Zone	Qtr 4-13	5,949.8	35.5%	5,949.8	35.5%
2013 Totals		16,753.6		16,753.6	
Dhofar Zone	Qtr 1-14	5,973.2	25.3%	5,973.2	25.3%
Dhofar Zone	Qtr 2-14	6,017.8	25.4%	6,017.8	25.4%
Dhofar Zone	Qtr 3-14	5,769.8	24.4%	5,769.8	24.4%
Dhofar Zone	Qtr 4-14	5,891.9	24.9%	5,891.9	24.9%
2014 Totals		23,652.7		23,652.7	
Dhofar Zone	Qtr 1-15	5,368.1	24.6%	5,368.1	24.6%
Dhofar Zone	Qtr 2-15	5,117.8	23.5%	5,117.8	23.5%
Dhofar Zone	Qtr 3-15	5,758.9	26.4%	5,758.9	26.4%
Dhofar Zone	Otr 4-15	5,559.1	25.5%	5,559.1	25.5%
2015 Totals		21,804.0		21,804.0	



# Annex D: **Electricity Subsidy Calculations**

## 2015 MIS Outturn Subsidy

Maximum Allowed Supply Revenu				
	Maximum	Allowed	Supply	Revenue

Maximum Allowed Supply Revenue				2015 outturn	2014 Outturn	
Rial Omani	MEDC	MJEC	MZEC	Total	Total	% Change
PC (Energy cost)	194,030,010	145,102,960	152,902,306	492,035,276	346,704,450	41.92%
TUoS (Transmission cost)	29,196,559	20,134,716	23,802,178	73,133,453	67,955,339	7.62%
DUoS (Distribution cost)	53,443,904	39,919,828	65,920,219	159,283,951	131,431,583	21.19%
SB (Supply cost)	10,526,749	7,588,942	11,624,897	29,740,589	26,581,185	11.89%
LF (Licence fee)	56,809	56,794	56,794	170,397	211,494	-19.43%
KS (Correction factor)	8,588,692	501,500	2,081,712	11,171,903	12,845,820	-13.03%
Maximum Allowed Supply Revenue	278,665,338	212,301,741	252,224,683	743,191,761	560,038,231	32.70%

#### Actual Regulated Supply Revenue

Rial Omani	MEDC	MJEC	MZEC	Total	Total		Variance
Approved Subsidy	105,010,215	97,825,120	137,623,622	340,458,957	233,962,2	10	46%
Permitted Tariff (& other) Revenue	170,566,616	117,022,261	111,425,839	399,014,716	345,895,7	44	15%
Actual Regulated Supply Revenue	275,576,831	214,847,381	249,049,461	739,473,673	569,857,9	54	30%
Outturn Subsidy Requirement	108,098,722	95,279,479	140,798,843	344,177,045	214,142,4	87	61%

#### Subsidy per kWh

(bz/kWh)	Muscat	Majan	Mazoon	Total	Total	Variance
Economic Cost	27.6	27.0	33.4	29.1	25.3	15%
Subsidy (Outturn)	10.7	12.1	18.6	13.5	9.7	39%
Customer Revenue	16.9	14.9	14.8	15.6	15.5	1%

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

# 2015 MIS Revenue and Subsidy







## 2016 MIS Subsidy Forecast

Maximum Allowed Supply Revenue				2016 Forecast	2015 outturn	
Rial Omani	Muscat	Majan	Mazoon	Total	Total	% Change
PC (Energy cost)	217,158,014	174,443,029	162,749,135	554,350,178	492,035,276	12.66%
TUoS (Transmission cost)	28,075,030	19,710,733	24,079,038	71,864,801	73,133,453	-1.73%
DUoS (Distribution cost)	49,996,222	42,520,956	67,605,249	160,122,427	159,283,951	0.53%
SB (Supply cost)	11,068,598	7,968,735	12,233,440	31,270,774	29,740,589	5.15%
LF (Licence fee)	59,241	59,241	59,241	177,724	170,397	4.30%
KS (Correction factor)	(3,116,712)	1,556,728	(3,204,216)	(4,764,200)	11,171,903	-142.64%
Maximum Allowed Supply Revenue	309,473,818	243,145,967	269,930,320	822,550,105	743,191,761	10.68%

#### Actual Regulated Supply Revenues

Rial Omani	Muscat	Majan	Mazoon	Total	Total	Variance
Approved Subsidy	123,091,130	112,126,912	149,545,856	384,763,899	340,458,957	13%
Permitted Tariff (& other) Revenue	186,382,688	131,019,055	120,384,464	437,786,206	399,014,716	10%
Actual Regulated Supply Revenue	309,473,818	243,145,967	269,930,320	822,550,105	739,473,673	11%

#### Subsidy per kWh

(bz/kWh)	Muscat	Majan	Mazoon	Total	Total	Variance
Economic Cost	28.4	27.6	33.1	29.5	29.1	1%
Subsidy (Estimate)	11.3	12.7	18.3	13.8	13.5	2%
Customer Revenue	17.1	14.9	14.8	15.7	15.6	1%

Source: Company returns, Authority estimates

## Key:

PC	means the cost of bulk supply purchaces from PWP
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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

## 2016 MIS Revenue & Subsidy

Forecast





## 2015 RAEC Subsidy Outturn

Maximum Allowed Electricity Revenue	2015 outturn	2014 outturn
Rial Omani	Total	Total
MAGR (Generation cost)	57,235,967	
MANR (Networks cost)	18,469,459	
MASR (Supply cost)	5,259,808	
LF (Licence fee)	302,899	
K (Correction factor)	173,382	
Maximum Allowed Electricity Revenue	81,094,750	56,836,636

#### **Actual Regulated Electricity Revenue**

Rial Omani	Total	Total	Variance
Approved Subsidy	66,452,279	44,646,000	49%
Permitted Tariff (& other) Revenue	13,685,566	12,362,210	11%
Actual Regulated Electricity Revenue	80,137,845	57,008,210	41%
Outturn Subsidy Requirement	67,409,184	44,474,426	52%

#### Subsidy per kWh

(bz/kWh)	Total	Total	Variance
Economic Cost	99.3	80.8	23%
Subsidy (Outturn)	82.6	63.2	31%
Customer Revenue	16.8	17.6	-5%

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

Source: Company SCRCs, Authority calculations

# 2015 RAEC Revenue & Subsidy Outturn

Key:

MAGR means the Maximum Allowed Generation RevenueMANR means the Maximum Allowed Networks RevenueMASR means the Maximum Allowed Supply Revenue

LF means the Licence Fees

K means the Electricity Business Correction Factor

All in relevant year t





## 2016 RAEC Subsidy Forecast

Maximum Allowed Electricity Revenue	2016 Forecast	2015 outturn	
Rial Omani	Total	Total	% Change
MAGR (Generation cost)	62,495,381	57,235,967	9.2%
MANR (Networks cost)	19,051,618	18,469,459	3.2%
MASR (Supply cost)	5,549,780	5,259,808	5.5%
LF (Licence fee)	278,783	302,899	-8.0%
K (Correction factor)	(965,641)	173,382	-656.9%
Maximum Allowed Electricity Revenue	88,341,203	81,094,750	8.9%

#### **Actual Regulated Electricity Revenue**

Rial Omani	Total	Total	Variance
Approved Subsidy	72,641,793	66,452,279	9%
Permitted Tariff (& other) Revenue	15,699,410	13,685,566	15%
Actual Regulated Electricity Revenue	88,341,203	80,137,845	10%

### Subsidy per kWh

(bz/kWh)	Total	Total	Variance
Economic Cost	94.1	99.3	-5%
Subsidy (Estimate)	77.4	82.6	-6%
Customer Revenue	16.7	16.8	0%

Source: Company returns, Authority estimates

# 2016 RAEC Revenue & Subsidy

Key:

MAGRmeans the Maximum Allowed Generation RevenueMANRmeans the Maximum Allowed Networks RevenueMASRmeans the Maximum Allowed Supply Revenue

LF means the Licence Fees

K means the Electricity Business Correction Factor

All in relevant year t





# 2015 DPC Outturn Subsidy

Maximum Allowed Supply Revenue	2015 outturn	2014 outturn	
Rial Omani	Total	Total	% Change
PC (Energy cost)	52,941,970	37,665,530	40.6%
TUoS (Transmission cost)	8,593,082	8,124,178	5.8%
DUoS (Distribution cost)	16,772,378	16,221,075	3.4%
SB (Supply cost)	3,959,059	3,259,080	21.5%
LF (Licence fee)	56,794	70,498	-19.4%
KS (Correction factor)	(1,444,399)	0	
Maximum Allowed Supply Revenue	83,767,682	65,340,361	28.2%

## **Actual Regulated Supply Revenue**

Rial Omani	Total	Total	Variance
Approved Subsidy	41,258,489	27,040,977	53%
Permitted Tariff (& other) Revenue	40,932,693	36,870,051	11%
Actual Regulated Supply Revenue	82,191,182	63,911,028	29%
Outturn Subsidy Requirement	42,834,989	28,470,310	50%

## Subsidy per kWh

(bz/kWh)	Total	Total	Variance
Economic Cost	32.4	27.8	17%
Subsidy (Estimate)	16.6	11.5	44%
Customer Revenue	15.8	15.7	1%

Source: Company returns, Authority estimates

## 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

## 2015 DPC Revenue & Subsidy Outturn





## 2015 Outturn & 2016 Forecast DPC Subsidy

Maximum Allowed Supply Revenue	2016 Forecast	2015 outturn	
Rial Omani	Total	Total	% Change
PC (Energy cost)	58,460,000	52,941,970	10.4%
TUoS (Transmission cost)	6,060,719	8,593,082	-29.5%
DUoS (Distribution cost)	16,377,377	16,772,378	-2.4%
SB (Supply cost)	4,229,223	3,959,059	6.8%
LF (Licence fee)	59,241	56,794	4.3%
KS (Correction factor)	(1,590,896)	(1,444,399)	10.1%
Maximum Allowed Supply Revenue	86,777,457	83,767,682	3.6%

## **Actual Regulated Supply Revenue**

Rial Omani	Total	Total	Variance
Approved Subsidy	38,219,973	41,258,489	-7%
Permitted Tariff (& other) Revenue	48,557,485	40,932,693	19%
Actual Regulated Supply Revenue	86,777,457	82,191,182	6%

## Subsidy per kWh

(bz/kWh)	Total	Total	Variance
Economic Cost	29.7	32.4	-8%
Subsidy (Estimate)	13.1	16.6	-21%
Customer Revenue	16.6	15.8	5%

Source: Company returns, Authority estimates

## 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

## 2016 DPC Revenue & Subsidy Forecast





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Annex E: Economic Electricity Subsidy 2015



# 2015 MIS Electricity Subsidy (Gas Cost Sensitivities)

## 2015 DPC Electricity Subsidy (Gas Cost Sensitivities)



# 2015 RAEC Electricity Subsidy (Diesel Cost Sensitivities)





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Annex F: 2016 Forward Work Programme



# 2016 Work Priorities

The 2016 Forward Work Programme includes a number of 'high priority' areas of work:

## GP1 Customer Service Compliance Audit

The Authority intends to undertake a formal audit of all supply licensees to ascertain their compliance with statutory obligations towards their customers. The audit will aim to identify areas for improvement within each licensee and provide benchmarks that will form a basis for continued improvement. There are a number of initiatives undertaken by licensees with regards to improving customer related services and the audit will assess the effectiveness of these initiatives.

## GP2 Water Sector Restructuring

Pursuant to a decision by the Government to restructure the water sector in Oman, the Authority will actively work to ensure the design of the legal and regulatory framework for the restructured water sector meets the objectives set forth by the Government.

## GP3 Permitted Tariff Analysis

The Authority will undertake a study on electricity tariffs in Oman and prepare comprehensive tariff reform proposals that will be presented to the Government during 2016. The study will consider modifications to the current structure of permitted tariffs and assess the impact on the allocation of Subsidy to various customer categories.

## GP4 Implementation of Energy Efficiency Measures

The Authority will take the lead in implementing energy efficiency measures across various aspects of the electricity sector. The measures will include demand-side management, coordinating on revised building codes, introduction of appliance labeling and other energy efficiency aspects that the Authority hopes will lead to promoting a more efficient use of electricity.

## GP5 Renewable Energy

Further to work undertaken by the Authority in 2015 on finalising and approving Agency Contracts to facilitate the purchase of electricity from small scale renewable facilities, the Authority will finalise the governance structure that it hopes will provide customers with the framework for deployment of small-scale renewable facilities connected at the distribution level in the Sultanate in 2016.



# Other areas of work planned for 2016

In addition to the 'high priority' areas of work outlined above, the Authority expects to progress other areas of work during 2016, including:

## GP6 Development of an Electricity Spot Market

Work is underway 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. During 2016, the Authority will continue to support work on the development and finalisation of detailed market rules that would govern the operation of the spot market.

## GP7 Disco and RAEC Price Control Review

The Authority will commence preparatory work for the new Disco/RAEC price control review; including setting out the key issues and undertaking an initial review of costs.

## GP8 Cyber Security Regulations

The establishment of a Cyber Security policy and implementation of Cyber Security protection will be included in licenses of electricity sector companies to be effective from 1 January 2016. The implementation plan includes several months of which the Authority will play an active role in reviewing the technical control design.

## GP9 Protection: Appropriate Person Criteria follow-up

The results of the re-audit of protection capability in 2015 was a helpful exercise in identifying and recognising some good work, and targeting areas where more focus is required.

Given the outcome of the audits and the known challenges to progress within some licensees, the Authority staff will monitor closely the progress that is being made by licensees with a view to a formal re-audit in 2016.

## GP10 Health and Safety Audit of Distribution and Supply

As with previous work programmes the 2016 programme includes actions to improve health and safety standards throughout the sector, including unannounced health and safety audits of electricity installations, full company audits of MJEC,MZEC and DPC.

## GP11 Oman Electrical Standards and Electrical Regulations

Works have progressed in 2015 with respect to OES11 and other standards and the Authority will continue to review other OES and work to update and issue revised and new OES throughout 2016 with a key focus on OES4.

## Authority for Electricity Regulation, Oman