

## **Management Discussion and Analysis Report**

The management of Al Kamil Power Company SAOG (AKPC) is pleased to present its report on the Company's performance, its future outlook, business structure and other matters of importance to shareholders.

### **Main Objects and Business**

Al Kamil Power Company SAOG (AKPC) is contracted under a Power Purchase Agreement (PPA) to supply electricity into the North Oman Transmission Grid. AKPC owns a 285 MW electricity generating plant near Al Kamil in the Sharqiya region of Oman and is the first private sector power plant in this region.

The formation of AKPC as an independent power producer is part of the Government's ongoing privatisation strategy. The Company operates within agreed project documentation with different Government agencies and the Oman Power and Water Procurement Company SAOC (OPWP), a closed joint stock company held by the Government of Oman.

The Government of Oman stands behind the financial obligations of OPWP. The PPA with OPWP and the Natural Gas Sales Agreement (NGSA) with the Ministry of Oil and Gas (MOG) are valid until 30 April 2017.

In the year 2010 the Company entered into a Supplementary Power Purchase Agreement with OPWP to supply additional 14 MW of power during the Summer Months (May to September) for the years 2010-2012. This has enabled AKPC to enhance its revenue. At the annual performance tests conducted by AKPC for the years 2010, 2011 and 2012, the additional power generating capacity has been aptly demonstrated.

Under the PPA, OPWP commits to pay AKPC Capacity Charges and Energy Charges in return for AKPC making available the electrical generating capacity and selling the electrical energy produced. Oman Electricity Transmission Company SAOC (OETC) conveys its planned power off-take on a daily basis and the power is then generated and delivered to the grid according to these requirements. The project agreements provide both revenue and cost assurance to the Company and its investors. A major source of revenue for the Company is the Capacity Charge, which is payable for all times the plant is available, based on minimum availability levels as defined under the PPA. AKPC is safeguarded under the PPA against RO/US\$ exchange rate movements and also against inflation. The actual level of power generation has no direct effect on the Company's net income.

Natural gas is received at the plant and burned in the gas turbines to produce power. It is supplied by pipeline from the Saih Rawl gas field, which also supplies gas to major industries in Sur. This energy drives the generator and electricity is produced. The electricity is then transformed up to 132 kV and supplied to the grid.

MOG is responsible for the supply of gas to the plant. In the case of non-availability of gas or gas not conforming to specifications, AKPC has to run the plant on fuel oil as required under the PPA and the NGSA. Under such circumstances, AKPC would be reimbursed by MOG for any additional costs arising as a consequence of running the plant on fuel oil and for any capacity shortfall that may arise as a consequence.

Al Kamil Construction & Services LLC (AKCS) is contracted to operate and maintain the power station. AKCS, a company whose major shareholder is GDF Suez SA which, through its subsidiary, International Power plc has an Operation and Maintenance Agreement with AKPC for fifteen years. The operations and maintenance standards of the plant are based

on international best practice, in accordance with GDF Suez's policies and principles which in turn is derived from its experience in operating power generation plants worldwide.

The generating plant at the Al Kamil power station comprises three General Electric Frame 9171E gas turbines in open cycle configuration, together with related ancillary equipment required for fully independent operation. These turbines are designed to run on both natural gas and distillate fuel oil.

The maintenance team of AKCS comprises mechanical, electrical, control and instrumentation engineers, including technicians trained to undertake day-to-day activities on the plant. The routine maintenance of the plant and related apparatus is carried out in accordance with recommendations from the Original Equipment Manufacturer and %Maximo+ maintenance management software tools have been installed in this regard. Major inspections and overhauls are contracted to specialist organisations, for example General Electric (GE) via a Long Term Service Agreement (LTSA) subsisting until April 2017. The over speed test of the gas turbine is carried out annually as recommended by International Power plc.

Planned unit outages are arranged during the winter periods - according to the schedule agreed between AKPC and OETC - in order to maximise generation during summer months. GE's scheduled combustion inspections (at 12,000 Factored Fire Hours), hot gas path inspections (at 24,000 Factored Fire Hours) and major inspections (at 48,000 Factored Fire Hours) are all conducted during these planned outages.

During the year, major inspections of Gas Turbine 1B and Combustion Inspection of Gas Turbine 1A were conducted. The purpose of the major inspection is to examine the turbine's entire internal rotating and stationary components from the inlet of the machine through to the exhaust section of the machine.

Typical major inspection activities are detailed below:

- ❖ All radial and axial clearances are checked against their original values (opening and closing).
- ❖ Casings, shells and frames/ diffusers are inspected for cracks and erosion.
- ❖ Compressor inlet and compressor flow path are inspected for fouling, erosion, corrosion and leakage. The inlet guide vanes are inspected, among other things, for corrosion, bushing abrasion and vane cracking.
- ❖ Rotor and stator compressor blades are checked for tip clearance, rubs, impact damage, corrosion pitting, bowing and cracking.
- ❖ Turbine stationary shrouds are checked for clearance, erosion, rubbing, cracking, and loudening.
- ❖ Seals and hook fits of turbine nozzles and diaphragms are inspected for rubs, erosion, fretting and thermal deterioration.
- ❖ Turbine buckets are removed. Buckets and wheel dovetails are checked.
- ❖ Bearing liners and seals are inspected for clearance and wear and tear.
- ❖ Inlet systems are inspected for corrosion, cracked silencers and loose parts.
- ❖ Exhaust systems are inspected for cracks, broken silencer panels or insulation panels.

Typical Combustion Inspection activities are detailed below:

- ❖ Inspect and identify combustion chamber components.
- ❖ Inspect and identify each cross fire tube, retainer and combustion liner.
- ❖ Inspect combustion liner for TBC spallation, wear and cracks. Inspect combustion system and discharge casing for debris and foreign objects.

- ❖ Inspect flow sleeve welds for cracking.
- ❖ Inspect transition piece for wear and cracks.
- ❖ Inspect fuel nozzles for plugging at tips, erosion of tip holes and safety
- ❖ Inspect all fluid, air, and gas passages in nozzle assembly for plugging, erosion, burning, etc.
- ❖ Perform visual inspection of first-stage turbine nozzle partitions and boroscope inspect turbine buckets to mark the progress of wear and deterioration of these parts.
- ❖ Perform boroscope inspection of compressor; visually inspect the compressor inlet and turbine exhaust areas, checking condition of IGVs, IGV bushings, last stage buckets and exhaust system components.
- ❖ Verify proper operation of purge and check valves. Confirm proper setting and calibration of the combustion controls.

Generator Inspection and tests observation during the Major Inspection of GT1B revealed few loose wedges. This issue was duly attended by GE. The Major Inspection of GT1B and Combustion Inspection of GT1A were completed by GE within the winter down-time agreed with OETC.

The following are other major preventive maintenance activities undertaken by AKCS:

- ❖ Chemical analysis of the transformer oil was routinely undertaken and values obtained were determined to be satisfactory. The condition monitoring of the transformers was done through oil Dissolved Gas Analysis tests.
- ❖ Under the transformer monitoring programme, special tests like Dielectric Frequency Response, Tan-Delta and Capacitance test, Furan Analysis, Corrosive Sulphur, Infra-Red Survey tests were carried out at periodic intervals.
- ❖ The 132 KV equipment insulators were regularly washed by demineralised water.
- ❖ The safety valves of pressure vessels were periodically tested.
- ❖ The turbine bearing oil analysis was done at suitable intervals and turbine and generator water quality was monitored through lab tests.
- ❖ Major maintenance of gas turbine battery charger system was carried out.
- ❖ GT1B Gear Box inspection, replacement of accessory shaft and alignment during Major Inspection.
- ❖ Exhaust duct repair of GT1A & 1B was carried out to attend few cracks and reinstating displaced insulation blocks.
- ❖ The fire equipment was tested for its availability on weekly basis. The emergency diesel generator set was tested on bi-weekly basis. Black Start capability was tested by starting one unit with Auxiliary supply fed from the DG set. All routine operational checks were done at every shift.

AKCS has been certified with ISO 9001 for excellent quality management, ISO 14001 for excellent environmental management, and OHSAS 18001-2007 for outstanding health and safety management. The Company and AKCS are both committed to achieving the best possible health, safety, environmental and quality performance standards. The management focus is to emphasise a health and safety culture in every aspect of its operations. The Company believes that all workplace accidents and injuries are avoidable. As such, it encourages safe behaviour and the right attitude in order to deliver zero accidents and zero incidents. The periodic checking of lifting equipment, safety valves, measuring instruments were undertaken through external authorized agencies.

Major jobs planned for the year 2013 are:

- ❖ Combustion Inspection of Gas Turbine 1C.
- ❖ Generator testing for Gas Turbines 1A, 1B and 1C.

As at December 2012, the plant completed 3,473 days of operation without a lost time accident.

### **Health Safety and Environment**

The health and safety training and awareness programmes conducted by AKCS during 2012 included:

Fresh Eye: A behaviour-based process that stimulates safety awareness in the work place. The programme coaches and mentors the employees at the work place to ensure that each person takes responsibility for his or her actions and assists in fostering this attitude among colleagues at the work place.

Take Five: A programme that involves personal hazard identification at the place where work is to be carried out.

Safety walk and audit: A programme that seeks continual health and safety improvements among the employees.

Toolbox talk: This is a communication and information sharing forum to discuss various aspects of the work with the ultimate aim to improve health and safety at the work place.

Emergency mock drill: A programme that tests the preparedness of employees to respond to all types of plant emergencies.

Peer Review: Peer Review of Safety rules is organized among different power stations of the group to objectively review the safety rules implementation and share best practices.

H&S Networking Group: Networking group is set up by the corporate H&S to inform, share and monitor H&S programs.

Station staff and contractors are educated through safety and environment induction, dissemination of corporate information & Safety Communication notes and toolbox talks. Regular HSE related training for employees are being conducted (at least 6 trainings in a year). Further, monthly health and safety and environmental meetings are conducted.

The annual health checkup is undertaken for all O&M staff. The first aid training is conducted for new employees and refresher training is imparted to the existing staff. Specialized H&S certified courses like NEBOSH and IOSH are planned for selected staff.

All operating staffs are trained for emergency preparedness tests. The emergency mock drill is conducted 3 times a year. In addition to this, business continuity mock drill is conducted once a year to check the preparedness to run the business in the event physical access to power station is not possible due to fire or unforeseen event. All shift charge engineers and operations engineers are certified first aiders. The firefighting training is being imparted to operating staff every year.

### **Human Resources – training and career development**

Training values established by the Company are primarily aimed to ensure all the employees perform their tasks in the most efficient and safe manner. The Company is duty bound to empower qualified Omani Nationals acquire better-quality engineering and related skills and take up higher responsibilities in operating and maintaining the Plant. To this end, since inception, the strategy of the Company has been to train and develop qualified Omani staff to take up the responsibilities and replace the expatriate staff, in due course. A skill matrix is prepared for all disciplines in the Plant operation and maintenance for guiding the Omani staff for future assignment. Each employee is encouraged to discuss and put together his career development path. Annual performance review of each employee includes assessment of the career growth of each employee.

For the year 2012, the PPA required AKCS to have on its role 55% staff who are Omani Nationals. Presently, AKCS has well exceeded this requirement. From May 2013 the Omanisation requirement is expected to scale up to 65%. The Company is well-gearred and committed to meet this obligation.

Significant training programs for the AKCS staff by external trainer conducted during the year were

- ❖ Operation and Maintenance of Gas Turbine Based power station at Osborne Engineering, Dubai
- ❖ Safety Controller and Designated Person training
- ❖ IOSH Managing Safely training organized by GDF Suez at Dubai
- ❖ OHSAS Auditor Training
- ❖ First Aid basic and refresher training

### **Business Income and Cost**

Operating revenues incorporate Capacity Charges and Energy Charges which are recovered on a monthly basis from OPWP. Revenues are indexed to the RO/US\$ exchange rate and inflation.

Capacity Charges are payable for each hour during which the plant is available for generation. The Capacity Charge is the total of:

- ❖ an investment charge covering capital expenditure and all related costs of the project such as tax payments, debt service and return on capital;
- ❖ a fixed operation and maintenance charge covering fixed operation and maintenance and all related costs to the plant; and
- ❖ a new industry charge providing compensation for Sector Law costs.

Energy Charges are payable for the energy generated in response to despatch requests issued by OETC. The Energy Charges are the total of:

- ❖ variable operating costs of generation;
- ❖ fuel costs: based on an agreed heat rate of natural gas consumption to produce the electrical energy delivered at a specified efficiency; and
- ❖ start-up charge: payable to AKPC for the costs of fuel for any starts in excess of 100 per year for each gas turbine.

A significant operating cost of the power station is the fuel required to operate the gas turbines. AKPC is required to pay for the gas consumed for the generation of power in accordance with the NGSA. However, the fuel charge element of the PPA allows a full pass-through of the gas price to the extent that electricity is generated with the plant efficiency detailed in the PPA.

AKCS is paid a fixed and variable fee for the operation and maintenance of the station for the duration of the PPA. This fee covers fixed operational expenses including expert services and the maintenance of mandatory spares for the plant. The actual variable energy charge received from OPWP under the PPA based on the actual energy delivered is paid to AKCS as a variable fee.

### **Future Outlook, Investment Opportunities and Obstacles**

1. The agreement with OPWP to generate 14 MW additional power during the summer months has expired at the end of September 2012. The Company believes that our

power plant will continue to have additional power generation capacity. However, OPWP has declined the Company's offer to extend this agreement as new generating capacity is being added to the Omani grid by new power plants. Should OPWP require additional power during the year 2013 or in the future, the Company would be well-placed to meet the same. The Company intends to follow-up this possibility of contracting additional available power with OPWP.

2. Since the year 2009, the Company's financial results have been negatively impacted as a result of the higher interest claimed by the Company's project lenders, who unilaterally invoked the Market Disruption Event clause (MDE) of the loan agreement. The Company is unable to get assurances from the project lenders as to when they would end the invocation of the MDE clause of the loan agreement in the future roll-overs of the project loan. Future profits will continue to be adversely impacted if the project lenders persist with MDE claims.
3. The Company is in the process of refinancing the subordinated unsecured loan with better terms and conditions. This is expected to reduce interest cost and improve short-term cash flow availability.
4. Further, the Company will continue to pursue opportunities to refinance the Company's project debt with better terms and conditions and avoid additional interest that is being paid to the current lenders on account of Market Disruption Event clause of the loan agreement. Should it be successful in this endeavour, the Company would be able to improve its cash flow and enhance future dividend payments.
5. OPWP has started PPA renewal process (expiring in April 2017) and has appointed a consultancy firm, NERA Economic Consultancy, as adviser. The Company has responded to an initial questionnaire from NERA. Further discussions in this regard are expected during 2013. AKPC will remain actively and constructively engaged in this process with a view of extending its PPA in a manner which is beneficial to all stakeholders.
6. The management is optimistic about the future of AKPC. Recognising that the long-term future of AKPC depends upon its efficient operational base, management will continue to focus on ensuring high levels of plant availability whilst closely controlling overhead costs.

## **Risks and Concerns**

### **Loss of Availability due to Mechanical Breakdown**

The principal risk to AKPC is the plant being unavailable due to mechanical breakdown. In order to mitigate this risk, AKPC ensures that AKCS operates and maintains the plant in line with AKPC policies, principles, directives and best practices in the industry.

### **Loss of Availability due to Accidental Damage**

In accordance with industry best practice, AKPC ensures that adequate insurance policies are in place to protect the business against any loss of property and loss of income arising from accidental damage.

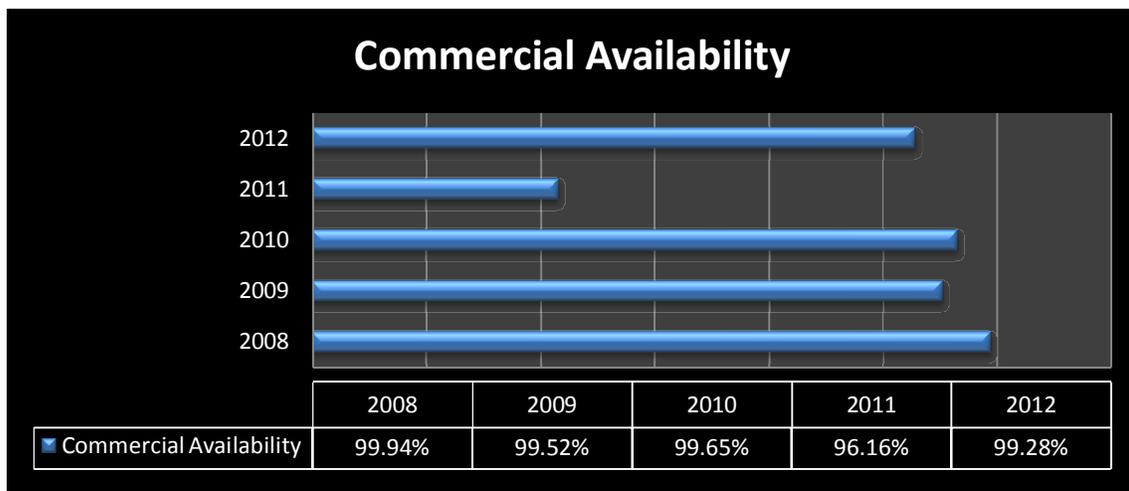
### **OPWP Payments**

OPWP has settled in full all invoices within the agreed credit period.

## Financial and Operational Performance

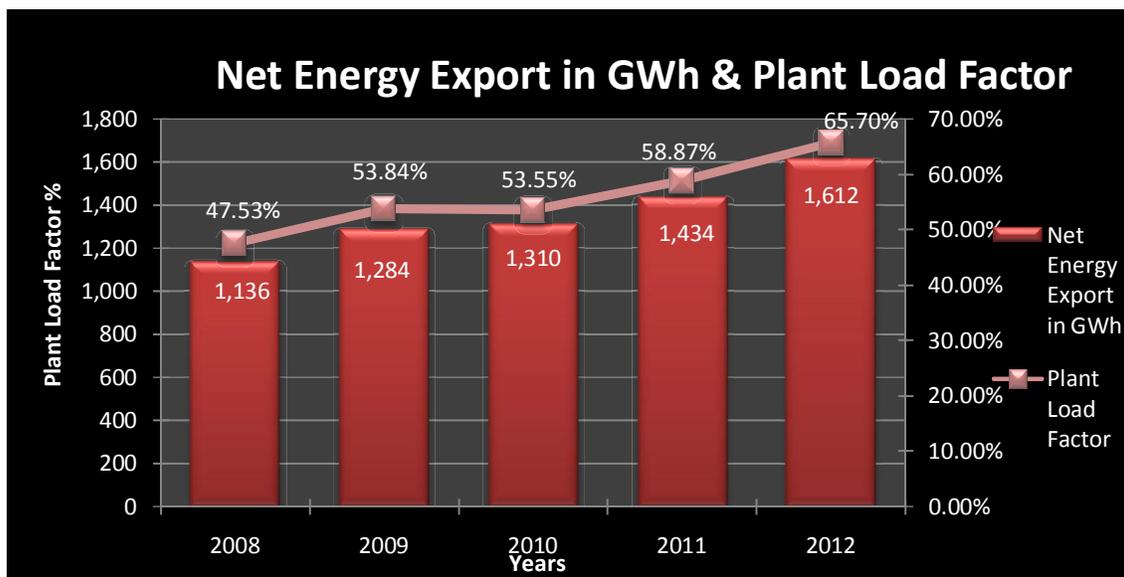
### Plant Performance

The plant operated extremely well throughout the year in compliance with OETC instructions with a commercial availability of 99.28%. The following chart displays the performance of the Company over the last five years:

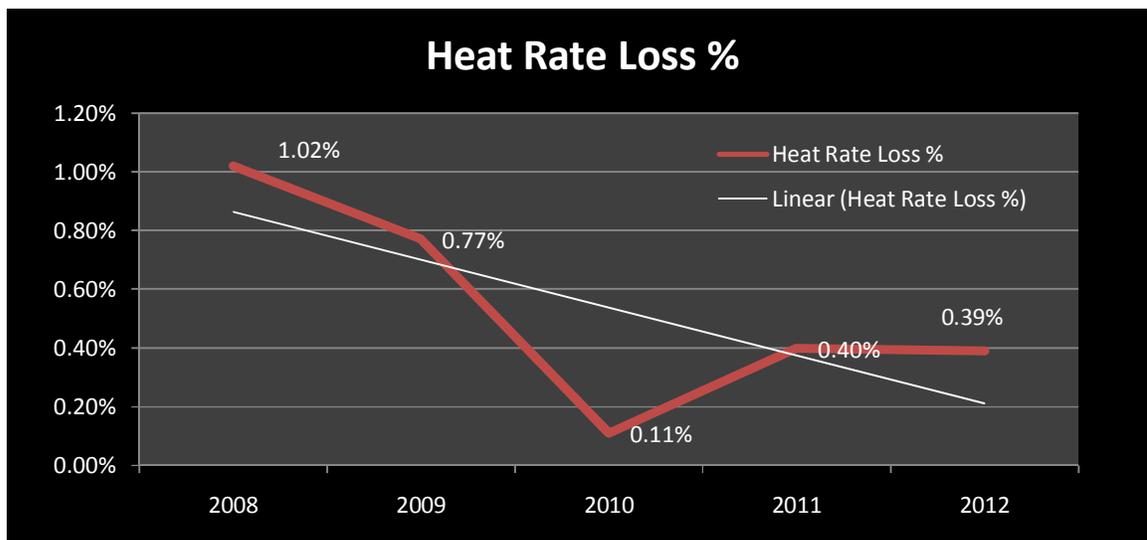


With an average plant load factor for 2012 of 65.7%, the plant has witnessed a substantial improvement in plant load factor. Nonetheless, the plant continues to operate at a sizeable unutilised capacity. During the year, the plant generated 12% more electricity compared to 2011. The following graph explains the trend witnessed in the plant's power generation over the last 5 years:

### Plant Performance 2008-2012



Thermal efficiency describes the amount of fuel required to generate a unit of electricity. An efficiency increase translates into less fuel, which is used to produce the same unit of electricity. In short, improvement in thermal efficiency translates into lower heat rate loss which financially benefits the company. The Company strives to enhance thermal efficiency and minimise heat rate loss. The following graph illustrates the results of the efforts to reduce the heat rate loss over the last 5 years:



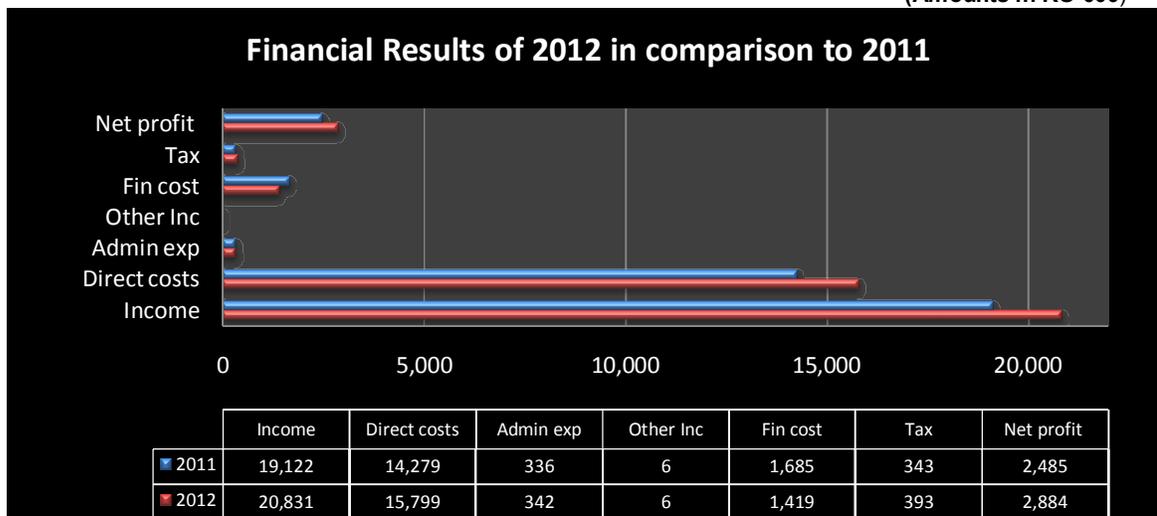
During the annual performance tests carried out in the presence of OPWP, the guaranteed capacity of the power station, including the additional 14MW capacity, was successfully demonstrated.

### Financial Performance

The financial performance indicators used by the Company address two key aspects of the business - its profitability and its cash generation. Power generation is a capital intensive business which necessitates the close monitoring of costs in order to achieve our targeted profits. The ultimate goal is to provide a fair return for our shareholders.

Revenue and cost analysis for 2012 (as compared to 2011) are displayed in the following chart:

(Amounts in RO'000)



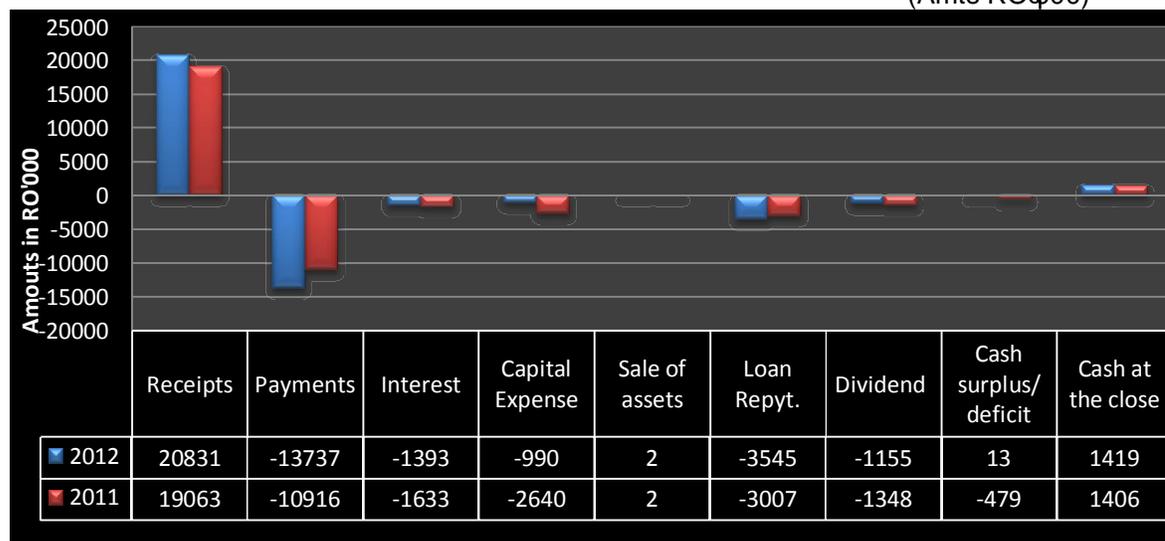
The important factors that influenced the financial performance of the Company during the year are given below:

1. The Major Inspection and Combustion Inspection conducted by GE during the year were well-within the agreed winter outage period.
2. A 12% increase in power generation boosted energy income. However, as energy income is a pass-through income for the Company, any increase in the energy income has no impact on the net profit for the year.
3. The plant suffered a total forced outage of 189 hours mainly on account of malfunction of plant during normal operation. The total loss of revenue from the forced outage was RO 0.067m. However, the Company recovered RO 0.020m from the O&M operator as per the O&M Agreement.
4. Close monitoring of general and administrative costs ensured they remained in line with the previous year's level.
5. The finance costs were lower on the back of scheduled loan repayments during the year.
6. The continued invocation by the project lenders of Market Disruption Event clause (MDE) of the loan agreement negatively impacted the net profit of the Company. The additional interest as a result of MDE amounted to RO 0.206 million (US\$ 0.538 million). If MDE had not been invoked by the lenders, the net profit of the Company would have been RO 3.100 million (US\$ 8.038 million), giving a 32% return on the capital.

The summarised cash flow for the year 2012 (as compared to the year 2011) is given below:

### Summarised Cash flow

(Amts RO'000)



The following are the highlights of cash flow for the year 2012:

1. The receipts and payment are in sync with the growth in revenue and expenditure witnessed during 2012 as compared to 2011.
2. The reduction in finance cost during 2012 as compared to 2011 is on account of loan instalment payments . net decrease RO 0.240m.
3. However, the increase in the scheduled loan instalment payment by RO 0.538m, during 2012 as compared to 2011, has reduced cash available with the Company to increase the dividend payout, although the net income for 2012 has soared when compared with 2011.
4. The Company is pleased to announce that it met all obligations under its bank covenants.

The following graph explains the movement in shareholders equity and amplifies the ramping up of the loan instalment payments and its impact on dividend payout.



The Board of Directors has proposed a final dividend of 9% in respect of the financial year of 2012.

Finally, earnings per share (EPS) are a measure of the overall profitability of the Company. It is defined as the profit in Baizas attributable to each share in the company, based on the net profit for the year, after tax. The calculation for EPS is shown in Note 24 within the financial statements. The EPS for 2012 was Baizas 300, a 16% increase over the previous year of Baizas 258.

The Company conducts no other business in the Sultanate of Oman or outside and has no subsidiaries.