

## **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 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.

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. 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 income 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 ENGIE (known previously as GDF Suez) 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 ENGIE's policies and principles which in turn are 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.

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, Hot Gas Inspection was carried out on GT1C.

Typical Hot Gas Path Inspection involves:

- ❖ Carrying out the entire scope of work detailed in the process of carrying out a combustion inspection explained above.
- ❖ A detailed inspection of the turbine nozzle and turbine buckets. This involves the removal of the top half of the turbine case (shell) and the first-stage nozzle and its inspection.
- ❖ Inspection of the second-stage nozzle, the third-stage nozzle and the turbine buckets.
- ❖ Further, a turbine clearances are fully checked.

The operation profile during the year has changed compared to the previous year. The units were dispatched by Load Dispatch Center (LDC) at base load during peak demand period in summer. But in the winter period the plant remains - most of the time- in standby condition with no unit running, in this condition the plant has to depend on black start diesel generator (BSDG) emergency for plant power consumption and startup of the first gas turbine. This dependency on BSDG makes the plant unreliable hence the decision of the board was to install a generator circuit breaker in one of the Generator which will allow importing power when all units are idle and keep the BSDG for the purpose it was designed for i.e. for Emergency.

During 2015, GT1C generator rotor rewind in AL-STOM workshop in Dubai. The work is completed in 50 days within the allowable planned outage period. The following are other major preventive maintenance activities undertaken by AKCS during 2015:

- ❖ Chemical analysis and condition monitoring of the transformer oil, as per the recommendation of Laborelec GDF Suez, was routinely undertaken and values obtained were determined to be satisfactory.
- ❖ Under the transformer monitoring programme, Infra-Red Survey test was carried out.
- ❖ Electrical tests in respect of transformers and generators including RSO test were carried out.
- ❖ 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.
- ❖ The fire equipment was tested for availability and readiness 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.

- ❖ Maintenance of gas water-bath heaters that are used to heat the gas turbine upto the recommended level by OEM.
- ❖ Maintenance of the black start diesel generator (BSDG).

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. . As required by ISO certification, the plant is annually audited by an external auditor (DNV). This year Audit was conducted in Dec 2015 and the plant found compliant with the ISO requirements without a non-conformance and only minor observations. Those observations were properly addressed by the AKCS.

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 plant maintenance jobs planned for the year 2016 are:

- ❖ Combustion Inspection of Gas Turbine 1A.
- ❖ Installation of one generator circuit breaker in GT1A.

## **Health Safety and Environment**

The plant has been certified for OHSAS 18001- 2007 - for Health & Safety Management System. The annual safety audit is conducted by external auditors. The health and safety training and awareness programmes conducted by AKCS during 2015 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.

POWRA (Point Of Work Risk Assessment): 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.

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

Operating Experience Flash (OEF) and Safety Information Memorandum (SIM) : A programme that is managed by ENGIE regional head office and sharing the incidents that took place in other part of the world and ensure that the control are put in place to avoid such incidents.

Station staff and contractors are educated through safety and environment induction, dissemination of corporate information and Safety Communication notes and toolbox talks. Operational incidents occurring in other power stations of ENGIE and elsewhere in the world are shared promptly. The lessons learned and actions initiated to avoid such incident at the concerned power stations are reviewed. Further, monthly health and safety and environmental meetings, in the presence of Chief Executive Officer of AKPC, are conducted. An incentive scheme has been designed to encourage the operational staff to suggest ways and means to improve safe and hazard free plant operations. Plant has implemented safety

management software that helps to manage and organize all the safety aspects. It is an open platform for all the staff to report any safety observations and participate in enhancement of the safety culture in the plant.

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.

The company submits monthly reports to Ministry of Climate Affairs on air and other emission related parameters. All the reports have confirmed the plant's adherence to the strict emissions norms. The plant has secured renewal of environmental certification for ISO 14001 through an external annual audit conducted by DNV. The company sends monthly report to the Ministry on air emissions and other parameters. There is no environmental issue of concern as on date. The gas turbines are equipped with DLN1 (dry low Nitrogen Oxide) technology and the same functioned satisfactorily during the year. Ministry of Environment and Climate Affairs (MECA) has issued a new requirement for environmental license for all industrial sectors in Oman to comply with. One of the requirement is to do an environmental audit by ISO 14001 certified third party. The audit has been conducted during 2015 and the final report will be submitted to MECA. The Audit was good and there are no issues of concerns. The outcome of the report then will be discussed with MECA.

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. The fire fighting equipments are tested for preparedness on weekly basis. The emergency diesel generator set is tested on bi-weekly basis. All routine operational checks are conducted at every shift. The plant successfully carried out the last mock emergency drill during 2015 in association with Civil Defense and Royal Oman Police.

As at December 2015, the plant completed 4,548 days of operation without a lost time accident.

### **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 their career growth.

For the year 2015, the PPA required the Company to have on its roll 65% staff who are Omani Nationals. Presently, the Company has fully adhered to this requirement.

Significant training programs by external trainer conducted during the year were:

- First Aid basic and refresher training

- Chemical handling, Manual handling training
- Fire Hose training
- Lifting and Rigging Operation
- Working At Height, confined spaces and Hot Work
- Scaffolding appreciation.
- IOSH and NEBOSH Training.
- Different training organized by ENGIE HO such as Cyber Security, Finance for non Finance, etc...

## **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. Starting from Jan 2015, MOG increased the gas price but this has no direct impact on the company as the fuel charge element is a pass-through as explained in the previous paragraph.

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**

- ❖ The Power Purchase Agreement (PPA) with OPWP expires on 30 April 2017. The Company has confirmed its new tariff for the extended period of the PPA till 2020. The PPA extension is at the final stage of approval process. The official execution of the extension agreement is expected in the first half of 2016.

- ❖ Proposed Anticipated Market Structure Reform in respect of Oman's power sector subsequent to the year 2020 is under consideration by OPWP. Subsequent to the year 2020, it is likely that the power sector could have certain power plants with full or part of its generation capacity contracted by OPWP, for a definite term, at a pre-agreed financial terms and remaining generating capacity could be subject to market pricing, on daily basis. AKPC's plant is in an open cycle configuration and would play a crucial role to satisfy Oman's peak power demand and also on occasions when there is a sudden loss of power due to a failure at any other power generating plant. In short, AKPC is expected to be an integral part of Oman's power sector with possibly partly fixed and partly variable tariff structure.
- ❖ Efforts to refinance the Company's project debt are expected to be taken up after a successful conclusion of the PPA extension process. If the refinancing proves successful, the Company's cash flow will see significant improvement with a future possibility of higher dividend payments.
- ❖ 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**

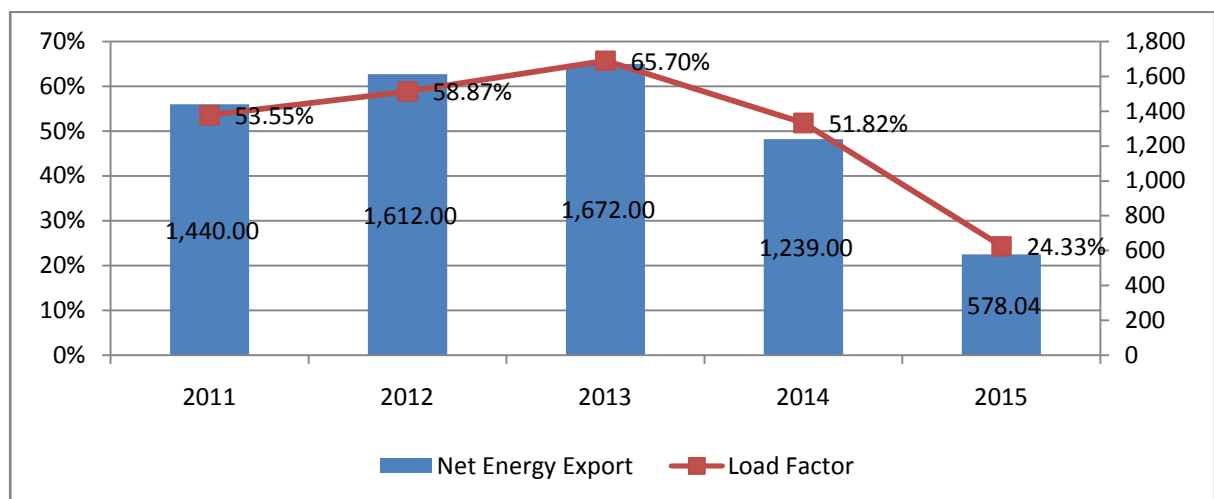
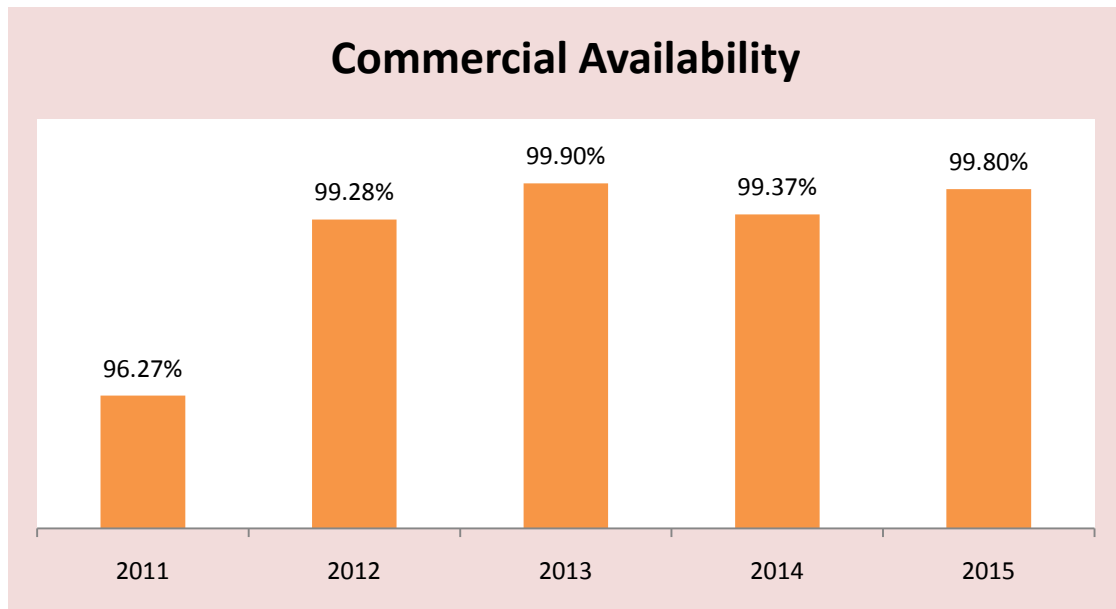
The plant operated well throughout the year in compliance with OETC instructions with a commercial availability of 99.80%.

During the year 2015, Oman grid's accessible generating capacity got ramped up by the new 2000 MW power plant in the Sharqiya Region, the region in which AKPC's plant is located, had an impact on the plant's operation and the level of power generated during the year. The plant received a high number of plant 'Start-Up' and 'Stop' instructions and lower generation request from the Load Dispatch Centre. The plant load factor for 2015 was 24.33% resulting in a reduction in generation of 53% as compared to the previous year. The energy charge element is a pass-through to O&M company, hence lower generation has no impact on the company net result. Consequently, running the plant to meet the peaks demand has resulted in the frequent starts and stops instructions received by the plant which may lead to

alter the maintenance program of the units. Despite of the increase in start/stop cycle the plant commercial availability was 99.80 which 0.5% better than the previous year.

The following charts display the performance of the Company over the last five years:

### Plant Performance 2011-2015

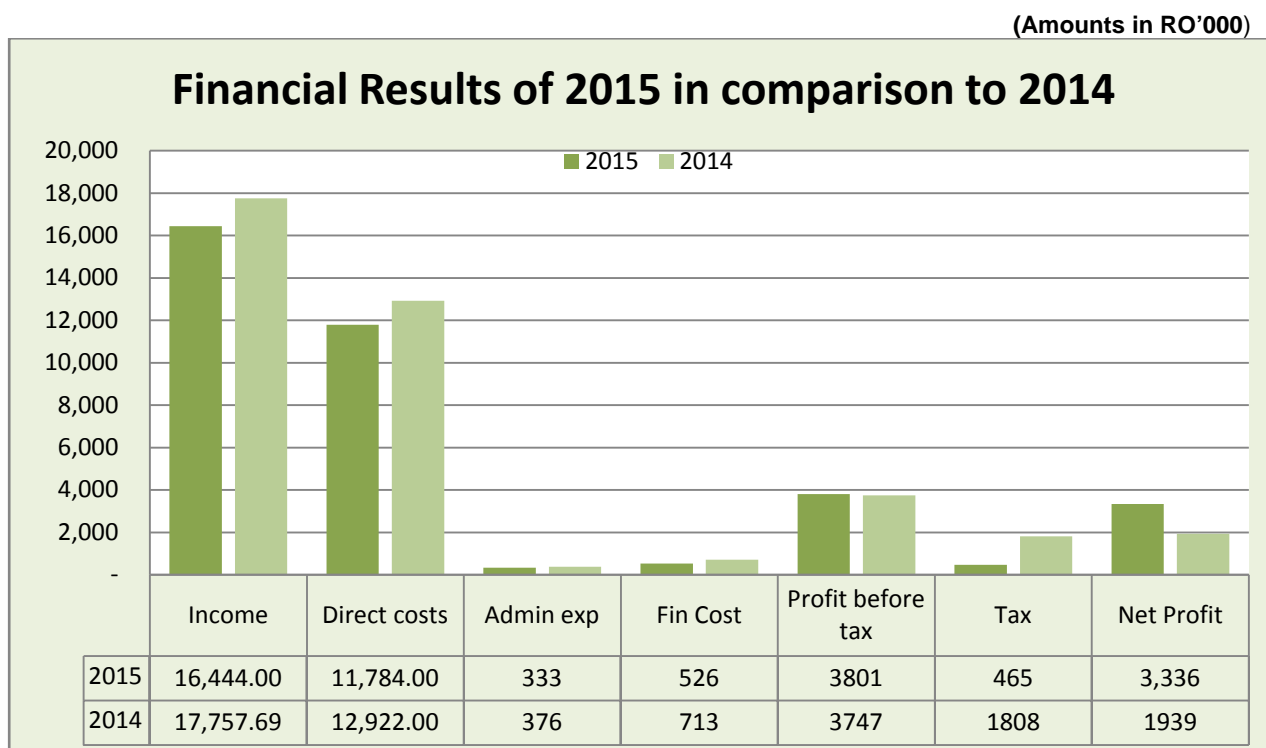


During the year, the annual performance tests carried out in the presence of OPWP the guaranteed capacity for the year 2015 was successfully demonstrated.

## 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 2015 (as compared to 2014) are displayed in the following chart:



The major operational matters having a bearing on the financial results of 2015, when compared with 2014, are highlighted below:

1. The fall in the gross income during 2015 of 7%, as compared to 2014 was mainly due to lower Energy Income. A 53% reduction in power generation during 2015, as compared to 2014, impacted Energy Income. The impact of low generation was slightly lessened by the higher gas price. However, as energy income is a pass-through income for the Company, any decrease in the energy income has no impact on the net profit for the year.
2. The plant forced outage rate of 52 hours, clocking a 99.80% commercial availability during the year 2015 which is much better as compared to 168 hours of forced outage and 99.37% availability during 2014.
3. Close monitoring and control of the general and administrative costs during 2015 ensured that these were lower than last year.
4. The finance costs were lower by 26% during 2015 as compared to 2014 due to the scheduled loan repayments during the year and lower LIBOR rates.
5. Consequently, the profit before tax saw a 1.44% growth over the previous year.

6. The resultant net income for the year was 72% higher as compared to the previous year. The previous year income was impacted by tax payment the company was compelled to pay as a result of an adverse interpretation by the Oman's Tax Department of Royal Decree 54/2000 granting tax exemption to the Company.

Summarized Cash Flow:

	(Amt RO '000)	
	2015	2014
Cash from OPWP & others	16,502	18,248
Cash paid to suppliers and employees	-10,705	-12,072
Interest paid	-526	-680
Surplus from operating activities	5,271	5,496
Tax paid	-620	-1,404
Net cash from operating activities	4,651	4,092
Net cash used in investing activities	-791	-919
Repayment of loan	-3,436	-3,331
Dividend payment	-	-963
Net increase in cash and cash equivalents	424	-1,121
Cash and cash equivalents at the beginning of the year	-92	1,029
Cash and cash equivalents at 31 December	332	-92

The following are the highlights of cash flow for the year 2015:

1. For the year 2015, the surplus from operating activities was 4% lower than previous year.
2. The net cash from Operating activities is 14% higher than the previous year.
3. Capital repairs of certain aging parts of the plant, advance for installation of generator circuit breaker and capitalisation of refurbishment cost after periodical inspection of the turbines were the major investing activities during the year.
4. The Company met all obligations under its bank covenants.

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 26 within the financial statements. The EPS for 2015 was Baizas 35 per equity share of face value of Baizas 100 as against previous year's EPS of Baizas 20.

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