



مكتب التنظيم والرقابة
Regulation & Supervision Bureau



Annual Report 2006

النسخة العربية متوفرة أيضاً

Note:

The Glossary of key terms appears on page 44





ANNUAL REPORT 2006

Regulation and Supervision Bureau

For the water, wastewater and electricity sector in the Emirate of Abu Dhabi

For the period 1 January 2006 - 31 December 2006

The Regulation and Supervision Bureau publishes this Annual Report in order to discharge its duties under Articles (56) and (58) of Law No (2) of 1998, with respect to the maintenance of a public register.

The Regulation and Supervision Bureau (the Bureau) is established in law to exclusively regulate and supervise the Emirate's power and water sector. It is an independent body whose functions and responsibilities are described fully in Law No (2) of 1998. In addition the Bureau also exercises its powers in the wastewater sector through the application of Law No (17) of 2005.



His Highness Sheikh Khalifa Bin Zayed Al Nahyan
President of the UAE and Ruler of Abu Dhabi



His Highness General Sheikh Mohammed Bin Zayed Al Nahyan
Crown Prince of Abu Dhabi and Deputy Supreme Commander of the UAE Armed
Forces and Chairman of the Executive Council



His Highness Sheikh Diab Bin Zayed Al Nahyan
Chairman of the Abu Dhabi Water and Electricity Authority

Sector **Activities**



PART I

Sector Activities

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Chairman's Welcome

Like previous years, 2006 has proven to be a busy one. However, certain landmarks have been reached, making it a year of significant importance. In particular, the electrical connection between the Abu Dhabi and Dubai transmission grids has been a great success, and Abu Dhabi is now a net exporter of power to the electricity transmission network of the Dubai Electricity and Water Authority (DEWA). This link is part of the interconnection of a grid to all the Emirates, with the potential for the Abu Dhabi Emirate to export to adjoining countries as well.



With the expansion of the Abu Dhabi National Energy Company (TAQA) in the sector and beyond, and the launch of Masdar (Abu Dhabi Future Energy Company), the Abu Dhabi electricity sector is both integrated and broad in its ability to attract overseas investment and cope with major development demands.

Developments in the water and wastewater sector continue to gather pace. In particular, the bromate reduction programme has now achieved GCC (Gulf Cooperation Council) levels or lower, and work will continue in 2007 to reduce this even further. The wastewater company continues to improve, and has completed its first full year of operation since its transfer to ADWEA ownership.

Internally, the Bureau's Technical Directorate was separated into two divisions; one reflecting power and production and the other responsible for water and wastewater. Given this restructuring and the activities in the sector, the recruitment of highly competent and well-qualified staff assumed a high priority.

On behalf of myself, the Bureau's Board of Directors and all our staff, I welcome you to our 2006 Annual Report.

A handwritten signature in blue ink, appearing to be 'Zaal Mohammed Zaal Al Hameeri'.

Zaal Mohammed Zaal Al Hameeri
Chairman

Sector Statistics



Annual Production for 2006

Electricity	Gross energy generated: 28,502,419 MWh; up 12.1 percent.
Water	177,500 MG, by desalination; up 8.7 percent.

System Demand

Electricity	Hourly peak: 5,201 MW; up 16.7 percent (2 September 2006). This includes an export to Dubai of 412 MW. The hourly peak demand for the Emirate of Abu Dhabi was 4,790; up 7.5 percent (19 August 2006).
Water	Daily transmission peak: 535.3 MGD; up 8.5 percent (14 August 2006).
Wastewater Treatment	105,579 million gallons received at wastewater treatment plants per day; up 10 percent.

Sector Turnover

Water/Electricity	AED 10,308 million; up 20 percent.
Wastewater	Approximately AED 600 million (estimated).

Customers

Electricity	303,605; up 4.1 percent.
Water	224,932; up 3.8 percent.
Wastewater	225,000 (estimated).

Water Quality

Total tests	159,722; an increase of 16 percent. 3,000 additional tests for bromate reduction study.
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(Note: The percentage increase is as compared with the previous year, 2005)

Overview

By Nick Carter - Director General

System Performance

Both the water and electricity sectors continue to provide a high reliability of performance, and, given the continued rapid growth rates of 8 – 12 per cent, this is an excellent achievement. Indeed, the reliability of the electricity cable network in the city of Abu Dhabi is comparable to that of London and similar major cities worldwide.

Further improvements in system reliability are likely over the coming years with the future installation by both distribution companies of remote-fault automation systems on their high-voltage electricity networks. In addition, with the removal of existing water transmission constraints to the Al Ain Region, there will be a significant improvement to customer supplies.

Dubai Connection

In mid-2006, work was completed on a 400 kV overhead line connection between the two largest transmission networks in the UAE, namely Dubai and Abu Dhabi. The linking of these networks is part of the Emirates National Grid project, which will see further links to other emirates and adjoining countries being made in coming years.

The Bureau issued a consent to TRANSCO for the connection and a separate consent to ADWEC to trade electricity with DEWA, which resulted in the sale of over 2,000 GWhs to DEWA for the year. For the remainder of the year, the Sector exported 400 MW per hour to Dubai.

Expansion of GTTPC

In the latter part of the year, GTTPC entered into an agreement with ADWEC to expand its generation capacity by a further 250 MW. Essentially, the existing plant would be extended by the addition of further gas turbines built adjacent to the company's A1 plant. This additional capacity is due to be commissioned during 2009. The Bureau consulted via a public notice to modify GTTPC's licence at the end of 2006, with the modification taking effect in 2007.

Emirates SembCorp (F1)

The existing UWEC plant, located at Qidfa in the Emirate of Fujairah, was sold to Singapore-based Company SembCorp Utilities. The new company, known as Emirates SembCorp Water and Power Company (SembCorp), will expand the plant by installing an additional 200 MW of generation, but water production will remain unchanged.

The structure of the company is in line with other IWPPs, and sixty percent of the shareholders' equity is owned by the government through ADWEA.

The Bureau issued a water desalination and delivery licence to SembCorp on 26 September 2006.



TAQA

The Abu Dhabi National Energy Company (TAQA) continues to expand in the UAE, acquiring a 54 percent equity shareholding in the newly-formed Emirates SembCorp Water and Power Plant located in Fujairah. This brings to six the number of IWPPs in which TAQA holds a major stake, and provides the company with a sound springboard for further acquisitions both inside and outside the UAE.

Fujairah F2 Project

In the latter part of the year, ADWEA issued a request for proposals (rfp) inviting international bidders to participate in the financing, building and operation of a new production plant located in the Emirate of Fujairah, close to the existing SembCorp plant.

The plant capacities are as follows: the generation of 2,000 MW of electricity and the production of 130 MGD of potable water either by thermal or part by reverse osmosis. The Bureau gave consent for a proportion of water storage to be off-site due to land constraints where the plant is to be built.

The financial structure of the F2 Project Company will be based on the normal Abu Dhabi IWPP model of 40 percent of the share capital owned by the successful bidder, and 60 percent owned by a local holding company established by ADWEA. The successful bidder is expected to be announced next year and project completion is due towards the end of 2010.

Supplementary Fuels

Due to primary fuel constraints, associated with gas supplies, the Sector burnt other fuels such as diesel oil at a number of power stations for a short period. Overall there were no problems with generator / boiler reliability, as all production equipment is designed to burn with at least two fuels. There were, however, additional costs associated with burning alternative fuels.

New Wastewater Treatment Plants

During 2006, ADSSC, through the privatisation group in ADWEA, launched a request for proposals for two major new wastewater treatment works for the Emirate, one serving the city of Al Ain and the other Abu Dhabi. The projects are being tendered as BOOT (build, own, operate and transfer) contracts, with 40 percent of the share capital owned by the successful bidder. Contract award is planned for 2007, with completion by early 2010.

The project will add much-needed wastewater treatment capacity to the Emirate, as the two major existing treatment works are now receiving flows in excess of their design capacity. Mean daily wastewater flows increased by an average of 10 percent across the Emirate between 2005 and 2006, and this growth is expected to continue.

Overview

Renewable Energy

In September 2006, the Government of Abu Dhabi launched Masdar, a company whose primary purpose is the promotion of renewable energy technologies in Abu Dhabi. The deployment of renewable energy generation technologies is a major step towards long-term technological changes in the power sector which will eventually produce significant environmental benefits.

The Bureau has been involved in studying a range of renewable energy policies used worldwide and is considering the possibility of implementing various policies to endorse the entry of renewable energy technologies into Abu Dhabi's power industry. Issues under consideration include the development of feed-in tariffs, technology considerations for solar power stations and embedded generation using solar or wind production units.

Cost, Prices and Subsidy Report

In the mid-year, the Bureau produced and submitted a formal report to the Government of Abu Dhabi summarising key information relating to the economic and financial performance of the Sector. In particular, the report analyzed trends affecting Sector costs, their relationship to the prices charged for water and electricity to different customer groups, and hence the impact on the level of financial subsidy.

Some of the key trends noted in the report are as follows:

- ◆ Both water and electricity tariffs are below the cost of supply;
- ◆ Sector tariffs have not increased in many years, which means that, due to general price inflation, they have fallen significantly in real terms - by more than 20 percent since 1999; and
- ◆ Between 1999 and 2005, the volume of water supplied to the sector more than doubled, and the volume of electricity supplied increased by almost 50 percent, with each additional unit requiring extra subsidy.

Also during the year, work was started on a price control review for the fourth network company in the Sector – the wastewater company ADSSC. Price controls are a key component in the economic regulation of a monopoly company.

Capital Expenditure Review (Network Companies)

During 2006, the Bureau appointed two consulting firms - Sinclair Knight Merz (SKM) for electricity, and W S Atkins for water - to review the efficiency of the capital expenditure of the network companies (TRANSCO, AADC and ADDC) over the PC2 period (2003 - 2005).

The efficiency review is important because capital expenditure accounts for about three-quarters of the costs of the network companies, via its impact on the allowances for depreciation and return on capital. During the three-year PC2 period, the capital expenditure of the network companies totalled over AED 12 billion. The work will be completed during 2007.

Electricity Wiring Regulations

The Bureau's Power and Production Directorate produced and issued for consultation a set of proposed Electricity Wiring Regulations. These are based on the UK's IEE Wiring Regulations (a British Standard), and are designed to govern the safe installation and maintenance of electrical installations in customers' premises. It is proposed to issue the new Regulations in 2007.

Customer Delivery



Performance Standards

We continued to strengthen our commitment to protecting the interests of customers during the year with the conclusion of an extensive period of consultation with the distribution companies, and the implementation of a Guaranteed and Overall Service Standards Code of Practice.

The Guaranteed Standards (there are currently ten separate standards) set out the minimum service standards and performance levels customers can expect from their distribution company. From 1 January 2007, a customer may be entitled to a compensation payment if these minimum standards of service are not met.

The Standards were introduced in a soft form, effective from 1 July 2006, but without the necessity for the companies concerned to have to pay any compensation payments to customers.

The Bureau promoted the Standards extensively through the release of press-notices and the requirement for the distribution companies to enclose bill-stuffers (to the Bureau's requirements) in all customer bills for one month.

Each month, the distribution companies provide information to the Bureau on their performance under the Guaranteed Standards. Progress on interpreting valuable performance data from this information has been slower than expected.

Methods of Payment

The Bureau continues to work with the two distribution companies on developing convenient ways for customers to pay their bills either by direct debit, credit card payment online or through distribution company call centres. Overall progress has been slow, and the Bureau intends to force progress in this area once the companies have installed their new billing systems.

Supply Agreement

Currently, when all categories of customer (government, residential, commercial, industrial) apply for a new supply, they do not sign a supply agreement. Such agreements normally set out the rights and obligations of both the distribution company and their customers.

During 2006, the Bureau consulted with the distribution companies and produced a new standard Supply Agreement for small businesses and residential customers which identifies the rights and obligations of both parties. The new agreement will come into force next year.

Disconnection Procedures

Fair procedures when disconnecting customers were the focus of a Bureau review during the year. In consultation with the distribution companies, existing disconnection policies were examined in detail to ensure fair and transparent disconnection procedures were developed which gave a degree of assurance to customers and the Bureau.

Customer Delivery

Customer Delivery

Large User Tariffs

Under the terms of their licences, the distribution companies (AADC and ADDC) are required to offer special tariffs to large users (customers with a demand in excess of 1 MW of electricity or 10,000 litres a day of water). The Bureau has developed a methodology to calculate the costs of large-user tariffs according to the various components of the Sector costs (production, transmission, distribution and supply).

The objective of such tariffs is to provide customers with a financial incentive to manage their demand away from system peaks, resulting in a lower average tariff. Customers with a high-voltage network connection and/or a favourable load profile may benefit from a tariff which is lower than the sector average.

Bulk Supply Tariff

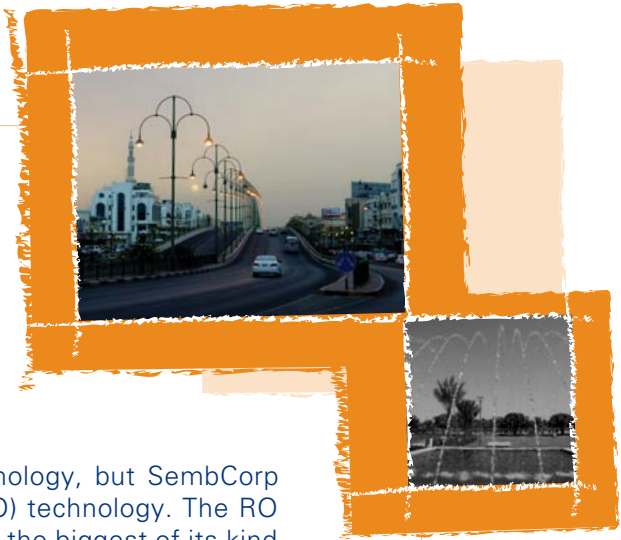
The Bulk Supply Tariff (BST) determines the price at which ADWEC, the single buyer, sells water and electricity to the distribution companies, and also forms the basis for the sale of power or water to large customers connected to the transmission grid.

The preparation of the 2007 BST was complicated due to the need to operate a number of generating plants using supplementary fuels for significant periods during the summer, which made it difficult to forecast accurately the level of fuel costs required to be recovered by the BST. In addition, as ADWEC was selling water and electricity to a number of customers outside the Emirate of Abu Dhabi (such as DEWA), costs had to be accurately allocated between licensed and unlicensed activities.

As a result, the Bureau were not able to approve the 2007 BST before the end of the year; a post-settlement procedure will be adopted at the end of next year.



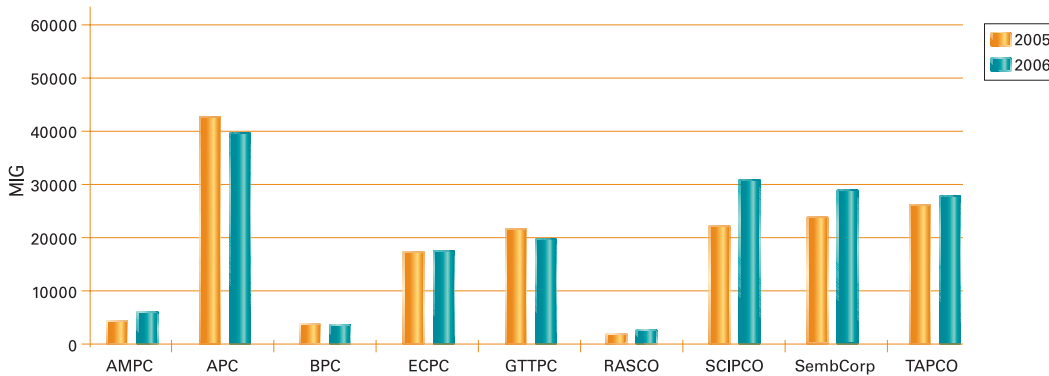
Drinking Water



Production

Water production capacity increased to 634 MGD, supplied through additional capacity at the SCIPCO plant in the Western region and the SembCorp plant at Fujairah. The annual net water production for the year increased by 8.7 percent to 177,500 MG. Thermal desalination remains the predominant production technology, but SembCorp produces a third of its water using reverse osmosis (RO) technology. The RO plant at Fujairah produces around 36 MGD, and is one of the biggest of its kind in the world.

Net Water Production



Transmission

Water supplies to many regions of Abu Dhabi have been improved following the interconnection of the Western and Central regions by transmission pipelines from Shuweihat. The scheme includes pumping and storage facilities at Al Mirfa and Mussafah, and provides significant additional security of supply for the Emirate.

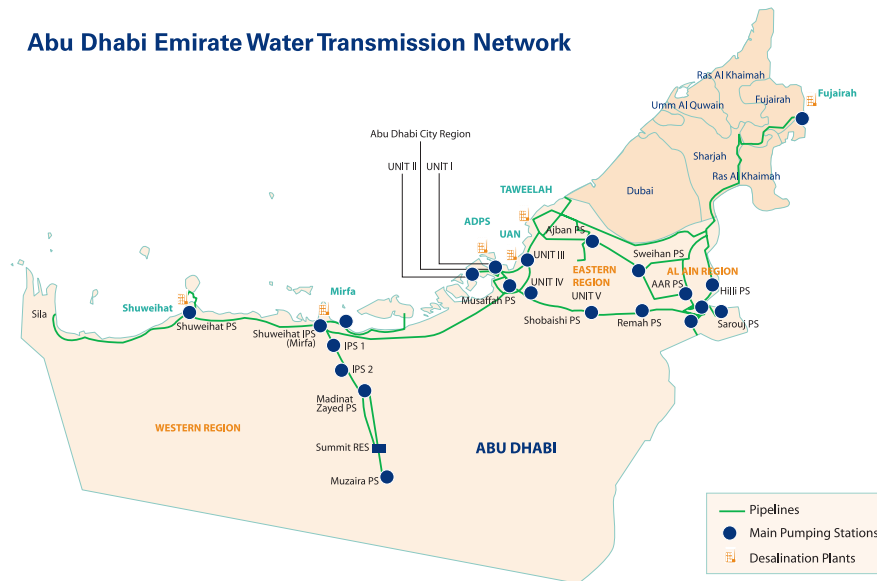
Water supplies to Al Ain, the Emirate's second city, increased by 20 MGD to 170 MGD, representing a 14 percent increase over the previous year. Much of this improvement was due to the new 185 km transmission mains delivering water from SembCorp in Fujairah to the city, but transmission system constraints continue to leave 60 percent of Al Ain on restricted supplies. This remains a cause of concern for the Bureau, and was a prime consideration in the Bureau's decision to reject the five-year planning statement for the water network submitted by the transmission company (TRANSCO) in 2006.

Transmission Water Constraints

Under the terms of its licence, the transmission company (TRANSCO) has a duty to prepare and submit a five-year Planning Statement (5YS) to the Bureau for approval.

For the TRANSCO 2006 5YS the Bureau was not able to approve the water planning statement due to a remaining transmission constraint to the city of Al Ain. TRANSCO have been required to address water transmission constraint issues in their 2007 5YS submission.

Abu Dhabi Emirate Water Transmission Network



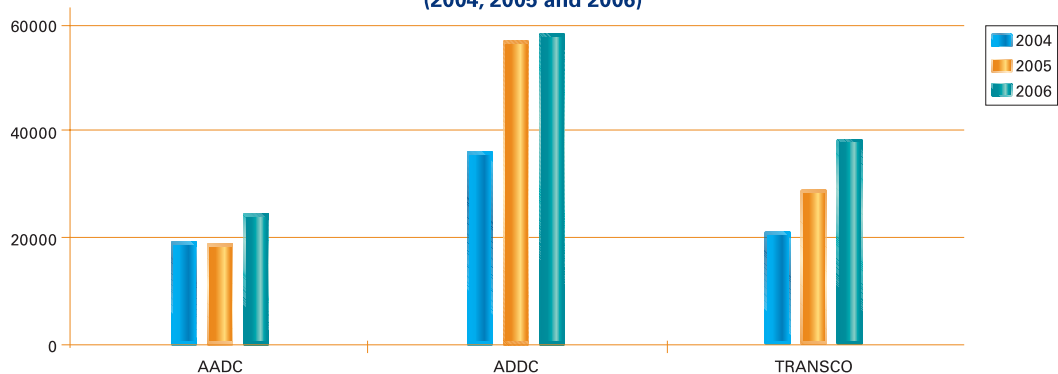
Distribution

Average distribution network pressure improved with 99 percent of readings above 0.5 bar and 72 percent above 1.25 bar. Virtually all customers are now connected to water distribution networks in the Emirate, with 75 percent receiving a continuous supply of water.

Water Quality

The companies' overall compliance with water quality standards was down from 98 to 95 percent due to the introduction of bromate as an additional measure in the Water Quality Regulations. The total number of tests conducted increased by 16 percent to 159,722 tests, with 68 water quality determinants examined. Producers were responsible for 22 percent of these tests, with 100 percent compliant with prescribed standards. Publication of the revised Water Quality Regulations (Version 3) was withheld in order to take account of any recommendations arising from the Phase two Bromate study as described below.

Total Tests Performed by Network Companies (2004, 2005 and 2006)





Ground Tanks

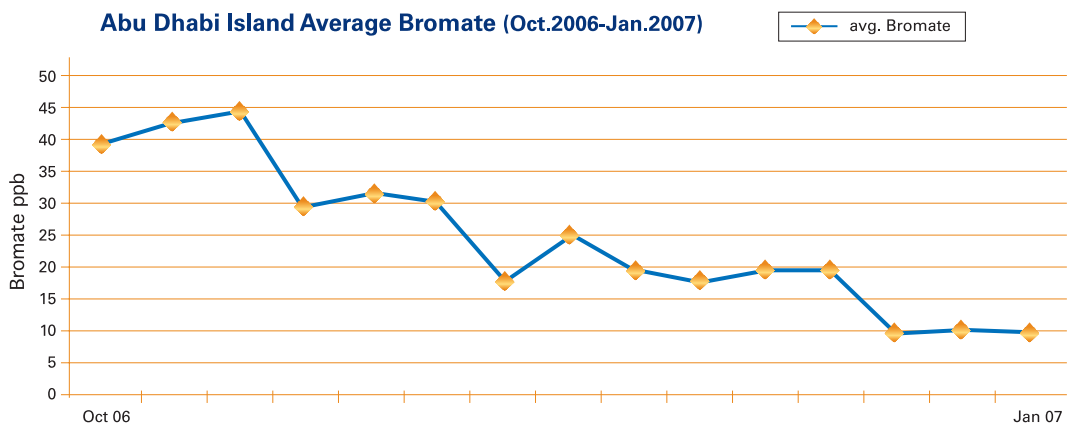
Improved network pressures and security of supply have allowed the Bureau to consult on a change of policy regarding customer in-ground water storage tanks. It is proposed to phase out in-ground tanks in low-rise buildings up to 15 metres high for both new developments and existing low-rise buildings, where network conditions allow. The primary purpose of this policy change is to promote safer water as ground tanks are prone to the ingress of bacteria and animals. Additional benefits include significant cost savings for owners and developers of such buildings, and a reduction in the maintenance costs of such tanks.

Bromate

The removal of bromate from Abu Dhabi's water supplies was a key priority for the Bureau in 2006. Changes made to disinfection systems in 2005 succeeded in preventing bromate formation at the source of production, but water quality data from the networks later revealed a secondary source of bromate formation in the water transmission and distribution networks.

The consultants appointed to the first bromate investigation, CH2M HILL, were re-engaged in August to work with the Bureau on a comprehensive study designed to identify the precise mechanisms of secondary bromate formation. This work involved the detailed examination of water treatment chemistry, sampling and analytical techniques, water quality management in the networks and extensive laboratory trials. During the course of this work, a pattern of evidence emerged which identified several key factors that contributed to bromate formation in networks.

Remedial measures introduced during the second half of the year largely removed bromate from the water networks. Such measures included the stopping of sea-water blending for re-mineralization purposes at some production plants, and the reduction of chlorination levels at certain points throughout the water network.



Wastewater

During 2006, ADSSC experienced its first full year of operation under regulatory scrutiny. The fulfilment of licence obligations has been a prime focus for the Bureau, and extensive dialogue with the Company has ensured steady progress towards meeting these obligations.

Licence conditions promote the efficient and cost-effective management of Abu Dhabi's wastewater infrastructure so that customer and environmental interests are protected and wastewater services developed to keep pace with customer expectations and growth in the Emirate.

The Licence became effective in June 2005, and a major emphasis for the Bureau has been the establishment of customer and trade effluent registers to assist the development of a tariff structure to support the cost of wastewater services.

The treatment of wastewater produces two valuable end products: irrigation water and biosolids, which are both recycled to the environment. In the interests of public health and sustainability, these products must conform to strict quality standards; to this end, the Bureau formed a working group with representatives from industry and the environment to develop new regulations for treated effluent quality and biosolids. These regulations will improve the control and scope of use of recycled wastewater by-products and ensure lasting environmental benefits for the Emirate.

Initial Price Controls for Sewerage Services

In September 2006, the Bureau issued a consultation paper on the subject of future price controls for the ADSSC. The key issues covered in the document include:

- ◆ What form of price control is appropriate, and what should its duration be?
- ◆ What assumptions should be adopted for future demand growth and efficiency improvements?
- ◆ What is an appropriate rate of return, and what other financial parameters should be taken into consideration?

The process will continue into 2007, with the publication of further consultation documents and the issue of Final Proposals during 2007.

Master Plan

ADSSC initiated a Master Plan project during the year, appointing consultants GTZ Dornier of Germany to carry out a strategic review of their business.

The project's intention is to look into all aspects of the wastewater sector, providing ADSSC with essential information regarding its asset base, flow and load forecasts and ultimately identification and prioritization of investment requirements. The project conclusions are due for delivery during the summer of 2007.

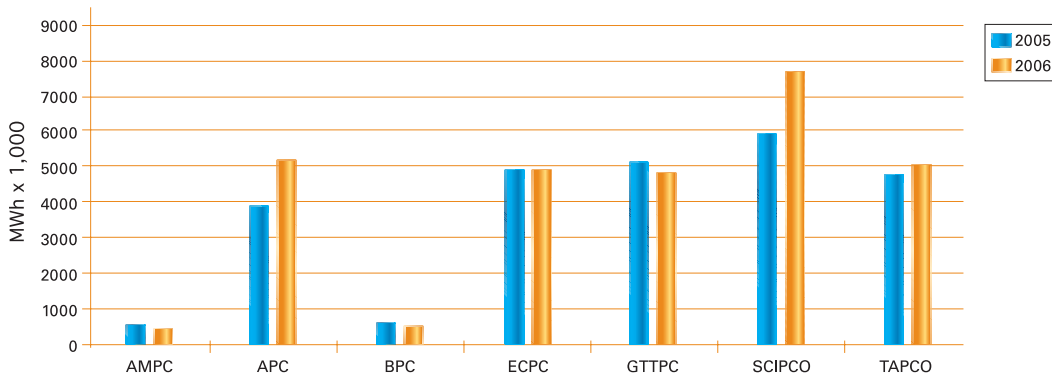
Electricity



Production

The sector gross generation in 2006 was 28,502,419 MWh, which was 12.1 percent greater than the previous year. This high increase was due to the new Abu Dhabi to Dubai 400 kV transmission line being connected in mid-year, which saw the export of 2,014,773 MWh to Dubai. The Abu Dhabi Sector imported 835,371 MWh from Takreer, which is part of the National Oil Companies' generation assets. Lastly, the remote areas company - RASCO - generated 83,066 MWh.

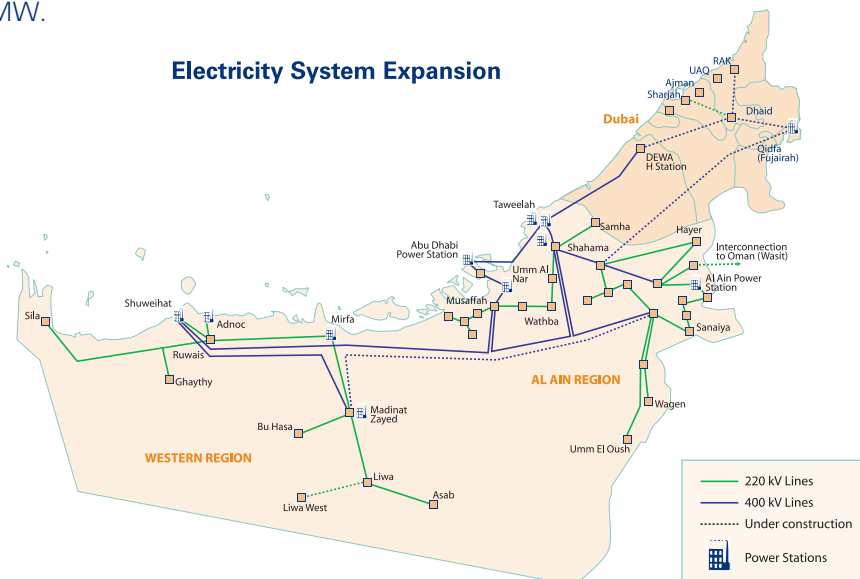
Electricity Production



Transmission

To meet medium to long-term demand forecasts, TRANSCO has installed new transmission lines from the Shuweihat (SCIPCO) site in the Western Region through to Al Ain City, via Madinat Zayed. The first leg, to Madinat Zayed, was completed during the year. The second leg will go to Al Ain and thereby create a 400 kV ring. During the year the Bureau gave consent for TRANSCO to build, own and operate assets in the Northern Emirates.

The link to the Dubai transmission system is at 400 kV; it has a secure capacity of 1,100 MW.



Electricity

Generation Performance

Three generation outage incidents occurred in 2006, but without causing any interruptions to customers:

APC suffered a mal-operation which resulted in power supply failure of the 6.3 kV Town Water Pumping Station and Crude Oil Transfer Pumps, causing the outage of a number of steam turbines and their associated distillers. The total power lost was 285 MW and the water production lost was 22.55 MG, but these losses were made up by the other producing plant.

SCIPCO suffered two incidents in two consecutive days due to an auxiliary transformer fault at a gas turbine. Each incident resulted in the loss of about 300 MW.

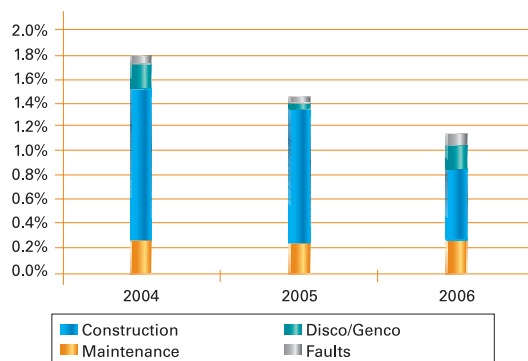
Transmission System Performance

The performance of the electricity transmission system serving the Emirate of Abu Dhabi is of a comparable standard to many global transmission systems. The two internationally recognised measures of any transmission system are Unavailability and Security.

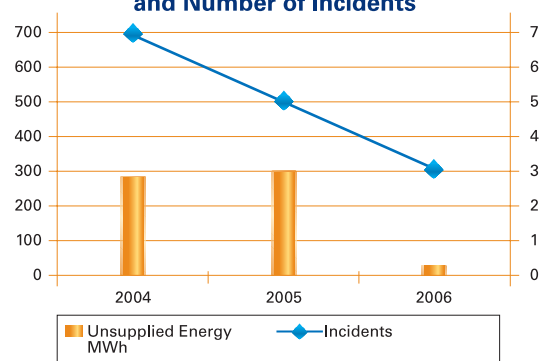
Unavailability measures the amount of time that parts of a transmission system are not in service as a percentage of the total hours in a year (for all items of plant). The chart illustrates that total System Unavailability has shown an improvement over the last two years, primarily due to a reduction in outages required for new construction activities.

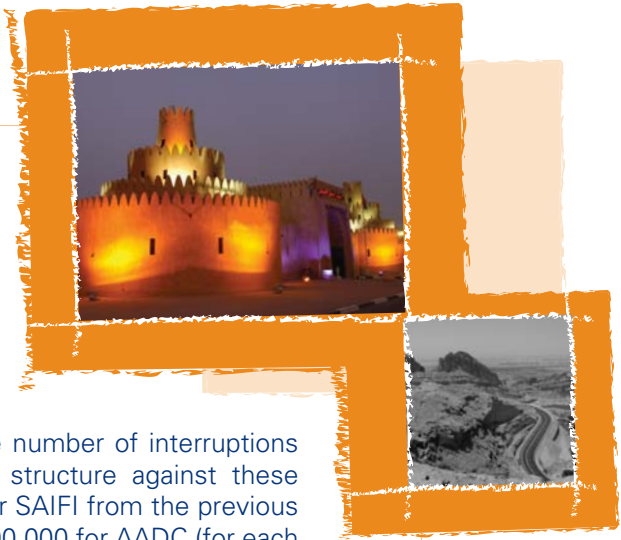
From a Security perspective, there has been a significant improvement in the performance of the transmission system over previous years. Three transmission system incidents occurred in 2006, which resulted in a loss of 34 MWh. All three incidents were investigated by the Bureau.

Causes of Transmission System Unavailability



Total Unsupplied Energy and Number of Incidents





Key Performance Indicators and Incentive Payments

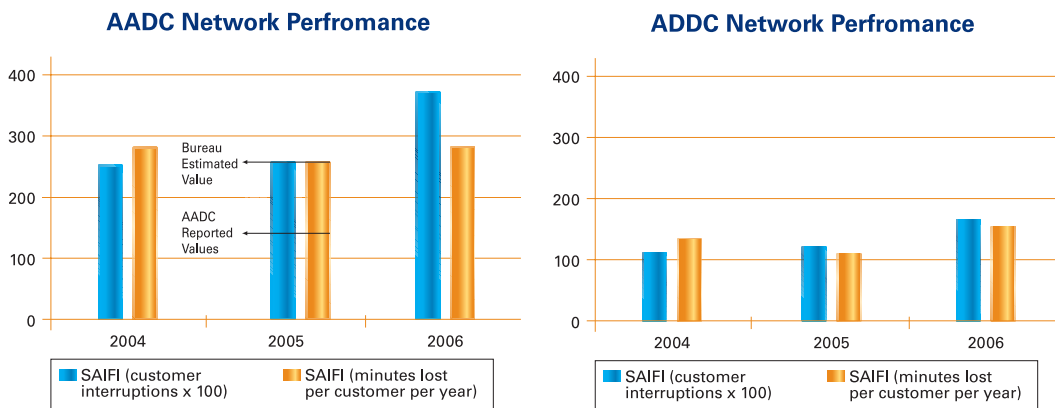
New key performance measures (KPIs) were introduced at the beginning of 2006 as part of the third price control (PC3). Two internationally recognised measures have been adopted for the distribution companies: the average annual minutes off supply per customer (SAIDI), and the average number of interruptions per customer (SAIFI). The Bureau set a reward/penalty structure against these measures such that a one percent improvement in SAIDI or SAIFI from the previous year provides a gain of AED 370,000 for ADDC, and AED 200,000 for AADC (for each KPI). Conversely, a one percent worsening of performance attracts the same value as a penalty.

For TRANSCO the reward/penalty is AED 420,000 for a one percent change in the "Availability" and "Energy Lost" performance indicators.

Distribution

The performance of the network has been recorded by both distribution companies for a number of years. However, following a number of audits carried out by the Bureau in 2005, it was found that the recording systems employed by both companies had significant weaknesses and inconsistent assumptions and estimated values. The Bureau established a standard recording procedure at the start of the year which was subsequently audited by external consultants and found to comply with internationally recognised best practice.

The performance of AADC is shown in the chart below and apparently indicates a worsening trend. However, this is understood to be due to the more robust recording procedures introduced in 2006. In addition, AADC commenced several programmes of network improvements, such as automatic remote restoration of high-voltage faults, which are expected to improve performance significantly in the future.



The ADDC graph also shows an apparent worsening in performance due to the change in reporting procedures. However, the company has also implemented a remote-fault identification and restoration system for the Abu Dhabi Island 11kV system; this is expected to bring about further improvements.

The rural (non-city) areas of both companies present the largest scope for improvement in network performance. This will be aided by the introduction of automatic fault restoration systems in the future.

Appointment of Technical Assessors

As part of the licence amendments to implement the present (PC3) price controls, the concept of a “Technical Assessor” was introduced by the Bureau. A Technical Assessor is appointed by monopoly licence holders such as the distribution companies, but with a duty of care to the Bureau to audit, from a technical perspective, the following key regulatory submissions:

- ◆ Price Control Returns, showing licensees’ compliance with the price controls and performance on various technical indicators, which are required to be submitted by the first quarter of each year.
- ◆ Annual Information Submission, containing financial and technical data for each company (current data and forecasts), which is required to be submitted by the third quarter of each year.

Technical Assessor reports will provide a commentary on how the companies’ data has been calculated, an assessment of the reliability of such data, and recommendations for future improvements.

Environment

Environmental Regulations for Above-ground Fuel Storage Tanks

In 2006 the Bureau issued a consultation document on the Environmental Regulations for managing above-ground fuel storage tanks. Given the high risk associated with fuel storage, the proposed regulations will impose standard requirements on all Sector company licence holders, and will ensure that such storage tanks are constructed and maintained in an environmentally responsible manner.

Waste Management

This year the Bureau introduced a requirement for the Sector companies to commence waste reporting. The aim of the introduction of waste reports was to make it possible to understand the various internal systems and procedures for waste management in the sector, and to enable regulatory guidelines for the sector to be issued. This will ensure that the sector companies are in compliance with Law No (21) of 2005 for the Management of Waste in Abu Dhabi.

First-year reports indicated that most companies have active waste management systems in place, and that hazardous waste materials are generated in minor quantities. Waste generated by Sector companies is disposed of through waste service providers licensed by the Environment Agency – Abu Dhabi (EAD).



During 2006 a further number of licence holders gained OHSAS (Occupational Health & Safety Accreditation) 18001 certification, which means that all Sector licence holders are now certified. All licensees have an appointed health and safety officer with whom the Bureau coordinates. However, it has been noted that despite the existence of Health and Safety management systems, there are major gaps in the control of on-site activities. This has unfortunately led to a number of incidents and accidents; these are discussed below.

Safety Incidents

During 2006 there were four sector-related fatalities, all of which involved contractor employees working for a licence holder.

Al Ain Distribution Company (AADC)

A contractor laying water pipes in a 1.2 m deep trench was crushed to death due to the collapse of an adjacent concrete inspection pit.

Abu Dhabi Sewerage Services Company (ADSSC)

Two contractors died while working inside a 600 mm sewage pipe which was under construction. Their deaths resulted from suffocation, assumed to have been caused by lack of air or the presence of noxious gases.

Abu Dhabi Transmission and Despatch Company (TRANSCO)

An overhead lines contractor fell from a 220 kV transmission tower while working at a height of 25 m. He was not attached to the tower by his safety harness, although he was wearing it.

These incidents resulted from similar root causes: the failure of contract staff to observe safe working procedures, including the use of safety equipment such as gas detectors and safety harnesses. This was despite the existence of written procedures being in place with the contracting companies and licence holders.

The Bureau closely followed the investigation of these incidents and worked with licence holders to ensure the implementation of improved monitoring of contract staff and the provision of safety equipment for all types of work. The Bureau also issued a notice to all licensees emphasising their responsibility towards contract staff. In response, licence holders implemented audit programmes to monitor safety performance of contractor crews.

Performance Trends and Auditing

The use of Health and Safety performance data includes overall trends and statistics such as lost time days per million man hours worked. Analysis of the data suggests an increased incident frequency during the first half of 2006 for both network and production companies. The Bureau worked with these companies to create increased safety awareness during this period. The safety messages delivered by licence holder Health and Safety Officers during their safety meetings focused on work practices such as permits-to-work and pre-job planning, and indications suggest that this effort has led to an overall reduction of incident frequency during the latter half of the year.



PART 2

Licence Holders

The Bureau grants licence to “Persons”(undertakings, companies, organisations) to carry out certain activities. Collectively these “Persons” are known as Licence Holders.

Licences are structures which confer rights and obligations on a licence holder in order for them to undertake regulated activities.

The Bureau’s primary annual funding is derived from Licence Holders via the application of fees.

ABU DHABI COMPANY FOR SERVICING REMOTE AREAS (RASCO)



Licensed to generate, desalinate, transmit, distribute and sell electricity and water in remote areas; not connected to either of the distribution networks.



شركة أبوظبي للتوزيع
Abu Dhabi Distribution Co.

ABU DHABI DISTRIBUTION COMPANY (ADDC)

Distributes and sells water and electricity to around 200,000 customers in the old Municipality area of Abu Dhabi.



ABU DHABI SEWERAGE SERVICES COMPANY (ADSSC)

The company is responsible for the collection, wastewater treatment and the disposal of all sewerage products in the Emirate of Abu Dhabi.



ABU DHABI WATER AND ELECTRICITY COMPANY (ADWEC)

ADWEC is the single buyer of water and electricity output and capacity from producers under various power and water purchase agreements (PWPA). It charges the distribution companies for water and electricity under a Bulk Supply Tariff (BST).



AL AIN DISTRIBUTION COMPANY (AADC)

Distributes and sells water and electricity to around 100,000 customers in the old Municipality area of Al Ain.



AL MIRFA POWER COMPANY (AMPC)

Operates two power stations at Al Mirfa and Madinat Zayed, with a total licensed capacity of 380 MW. Water production is at the Al Mirfa station only, with a licensed capacity of 38.7 MGD.



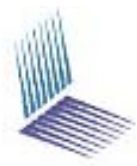
ARABIAN POWER COMPANY (APC)

Fourth IWPP in the Emirate, following the purchase of the Umm Al Nar Power Company's assets. Located at Sas Al Nakhel. Licensed capacities of 2,200 MW and 160 MGD; these capacities will be reduced to 1,550 MW and 95 MGD after 2010.



BAINOUNAH POWER COMPANY (BPC)

Operates two power stations at Mina (Abu Dhabi) and Al Ain. Total licensed capacity of 1,001 MW and water production of 16 MGD.



EMIRATES CMS COMPANY (ECPC)

Located at the old Taweelah A2 site, the first IWPP in the Emirate, and is licensed to produce 50 MGD of water and generate 763 MW of electricity.



شركة الإمارات سيمكوب للماء والطاقة
EMIRATES SEMBCORP
WATER & POWER COMPANY

EMIRATES SEMBCORP WATER AND POWER COMPANY (SembCorp)

SembCorp owns production facilities in the Emirate of Fujairah, located on the East Coast of the UAE. The company produces water and electricity for the Federal Electricity and Water Authority and water for the Emirate of Abu Dhabi. It is licensed by the Bureau for the desalination of up to 100 MGD of potable water and for its delivery to the Emirate of Abu Dhabi.



GULF TOTAL TRACTEBEL POWER COMPANY (GTTPC)

Located at the Al Taweelah complex; GTTPC was the first IWPP in the Emirate to adopt existing assets (Taweelah A1). Licensed capacities of 84.8 MGD of desalinated water and 1,600 MW of electricity.



SHUWEIHAT CMS INTERNATIONAL POWER COMPANY (SCIPCO)

SCIPCO is licensed to produce up to 1,500 MW of electricity and 100 MGD of desalinated water from Shuweihat S1 Plant, located 260 kms west of Abu Dhabi, near Jebel Dhanna.



TAPCO
TAWEELAH ASIA POWER COMPANY

TAWEELAH ASIA POWER COMPANY (TAPCO)

Situated at the Al Taweelah Complex; TAPCO owns the old Taweelah B and B2 Plants. Licensed to produce 160 MGD of water and 2,000 MW of electricity. The fifth IWPP in the UAE.



TRANSCO
ترانسكو
شركة أبوظبي للنقل والتحكم
Abu Dhabi Transmission & Despatch Company

TRANSMISSION AND DESPATCH COMPANY (TRANSCO)

The company is responsible for all transmission voltages at 400, 220 and 132 kV, including despatch of generation units, water balancing and the bulk movement of water throughout the Emirate.



شركة أم النار للطاقة
Umm Al Nar Power Company

UMM AL NAR POWER COMPANY (UANPC)

Owners of Baniyas power station with a licensed capacity of 120 MW; currently not in production.

MW = Mega Watts, MGD = Million Imperial Gallons per day



PART 3

Financial Report and Governance

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INDEPENDENT AUDITORS' REPORT TO THE BOARD MEMBERS OF REGULATION AND SUPERVISION BUREAU

We have audited the accompanying financial statements of Regulation and Supervision Bureau (the "Bureau"), which comprise the balance sheet as at 31 December 2006 and the statements of funding and expenditure and accumulated deficit and cash flow statement for the year then ended, and a summary of significant accounting policies and other explanatory notes.

Management's 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. This responsibility includes: designing, implementing and maintaining internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error; selecting and applying appropriate accounting policies; and making accounting estimates that are reasonable in the circumstances.

Auditors' 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 from 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 auditors' judgement, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate for the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity'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 the financial statements.

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

Opinion

In our opinion, the financial statements present fairly, in all material respects, the financial position of the Bureau as of 31 December 2006 and the results of its operations and its cash flows for the year then ended in accordance with International Financial Reporting Standards.

12 June 2007
Abu Dhabi

Balance Sheet

At 31 December 2006

	Notes	2006 AED	2005 AED
ASSETS			
Non-current assets			
Software and equipment	3	160,948	197,072
Advance to employees		<u>265,831</u>	<u>-</u>
		<u>426,779</u>	<u>197,072</u>
Current assets			
Prepayments and other receivables	4	2,143,688	1,444,570
Bank balances and cash	5	<u>19,001,210</u>	<u>12,167,240</u>
		<u>21,144,898</u>	<u>13,611,810</u>
TOTAL ASSETS		<u>21,571,677</u>	<u>13,808,882</u>
EQUITY AND LIABILITIES			
Equity			
Accumulated deficit		<u>(287,948)</u>	<u>(152,588)</u>
Non-current liability			
Employees' end of service benefits	7	<u>2,050,526</u>	<u>1,301,430</u>
Current liabilities			
Accounts payable and accruals	6	<u>19,809,099</u>	<u>12,660,040</u>
Total liabilities		<u>21,859,625</u>	<u>13,961,470</u>
TOTAL EQUITY AND LIABILITIES		<u>21,571,677</u>	<u>13,808,882</u>



Zaal Mohammed Zaal Al Hameeri
CHAIRMAN



Nick Carter
DIRECTOR GENERAL

Funding and Expenditure and Accumulated Deficit

Year ended 31 December 2006

Funding and Expenditure and Accumulated Deficit

	Notes	2006 AED	2005 AED
STATEMENT OF FUNDING AND EXPENDITURE			
FUNDING			
Licence fees	9	14,249,000	9,952,325
Other income		<u>257,166</u>	<u>227,079</u>
		<u>14,506,166</u>	<u>10,179,404</u>
EXPENDITURE			
Salaries and staff related costs		12,931,168	8,945,709
Depreciation	3	91,201	93,194
Others		<u>1,619,157</u>	<u>1,324,540</u>
		<u>14,641,526</u>	<u>10,363,443</u>
DEFICIT FOR THE YEAR		<u>(135,360)</u>	<u>(184,039)</u>
STATEMENT OF ACCUMULATED DEFICIT			
Balance at 1 January		(152,588)	31,451
Net deficit for the year		<u>(135,360)</u>	<u>(184,039)</u>
Balance at 31 December		<u>(287,948)</u>	<u>(152,588)</u>

Statement of Cash Flows

Year ended 31 December 2006

	<i>Notes</i>	<i>2006</i> <i>AED</i>	<i>2005</i> <i>AED</i>
OPERATING ACTIVITIES			
Deficit for the year		(135,360)	(184,039)
Adjustments for:			
Provision for employees' end of service benefits		833,045	418,215
Net gain on sale of vehicles and equipment		-	(58,792)
Interest income		(222,166)	(86,167)
Depreciation		<u>91,201</u>	<u>93,194</u>
		566,720	182,411
Working capital adjustments:			
Prepayments and other receivables		(699,118)	263,329
Accounts payable and accruals		<u>7,149,059</u>	4,141,303
Cash from operations		7,016,661	4,587,043
Employee's end of service benefits paid		<u>(83,949)</u>	-
Net cash from operating activities		<u>6,932,712</u>	<u>4,587,043</u>
INVESTING ACTIVITIES			
Purchase of software and equipment		(55,077)	(93,521)
Proceeds from disposal of vehicles and equipment		-	66,587
Interest received		222,166	86,167
Advance to employees		<u>(265,831)</u>	-
Net cash (used in) from investing activities		<u>(98,742)</u>	<u>59,233</u>
INCREASE IN CASH AND CASH EQUIVALENTS			
Cash and cash equivalents at 1 January		<u>12,167,240</u>	<u>7,520,964</u>
CASH AND CASH EQUIVALENTS AT 31 DECEMBER	5	<u>19,001,210</u>	<u>12,167,240</u>

Notes to the Financial Statements

31 December 2006

1. ACTIVITIES

Regulation and Supervision Bureau ("the Bureau") was established under Law no. (2) of 1998 to regulate the water and electricity sector in the Emirate of Abu Dhabi.

The Bureau is funded by the payment of licence fees by those entities awarded licenses and is a not for profit organisation.

The Bureau's registered office is at P O Box 32800, Abu Dhabi, United Arab Emirates.

The financial statements of the Bureau for the year ended 31 December 2006 were authorised for issue by the management on 12 June 2007.

2.1 BASIS OF PREPARATION

The financial statements have been prepared in accordance with International Financial Reporting Standards.

The financial statements have been presented in UAE Dirhams (AED), the functional currency of the Bureau.

The financial statements are prepared under the historical cost convention.

The accounting policies are consistent with those used in the previous year.

2.2 IASB STANDARD ISSUED BUT NOT ADOPTED

The following IASB Standard has been issued but is not yet mandatory, and has not yet been adopted by the Bureau:

- IFRS 7 Financial Instruments: Disclosures

The application of IFRS 7, which will be effective for the year ending 31 December 2007, will result in amended and additional disclosures relating to financial instruments and associated risks.

2.3 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Software and equipment

Software and equipment are stated at cost less accumulated depreciation and any impairment in value.

Depreciation is calculated on a straight line basis over the estimated useful lives of the assets as follows:

Software	over 3 years
Office equipment and furniture	over 5 years

The carrying values of software and equipment are reviewed for impairment when events or changes in circumstances indicate the carrying value may not be recoverable. If any such indication exists and where the carrying values exceed the estimated recoverable amount, the assets are written down to their recoverable amount, being the higher of their fair value less costs to sell and their value in use.

Expenditure incurred to replace a component of an item of equipment that is accounted for separately is capitalised and the carrying amount of the component that is replaced is written off. Other subsequent expenditure is capitalised only when it increases future



economic benefits of the related item of software and equipment. All other expenditure is recognised in the statement of funding and expenditure as the expense is incurred.

Funding

Licence fees funding from the licensees in respect of the current year is accounted for in the statement of funding and expenditure based on the amount of the cash expenditure incurred during the year. Any funding received in excess of the cash expenditure is deferred and included in accounts payable and accruals. Short funding is included in prepayments and other receivables as licence fees recoverable.

Interest income

Interest revenue is recognised as the interest accrues using the effective interest method, under which the rate used exactly discounts estimated future cash receipts through the expected life of the financial asset to the net carrying amount of the financial asset.

Accounts payable and accruals

Liabilities are recognised for amounts to be paid in the future for goods or services received, whether billed by the supplier or not.

Impairment and uncollectibility of financial assets

An assessment is made at each balance sheet date to determine whether there is objective evidence that a specific financial asset may be impaired. If such evidence exists, any impairment loss is recognised in the statement of funding and expenditure. Impairment is determined as the difference between the present value of future cash flows discounted at the current market rate of return for a similar financial asset.

Provisions

Provisions are recognised when the Bureau has an obligation (legal or constructive) arising from a past event, and the cost to settle the obligation is both probable and able to be reliably measured.

Cash and cash equivalents

For the purpose of the cash flow statement, cash and cash equivalents consist of cash in hand and bank balances.

Employees' end of service benefits

The Bureau provides end of service benefits to its expatriate employees. The entitlement to these benefits is usually based upon the employees' length of service and completion of a minimum service period. The expected costs of these benefits are accrued over the period of employment.

With respect to its national employees, the Bureau makes contributions to Abu Dhabi Retirement Pension and Benefit Fund calculated as a percentage of the employees' salaries. The Bureau's obligations are limited to these contributions, which are expensed when due.

Foreign currencies

Transactions in foreign currencies are recorded at the rate ruling at the date of the transaction. Monetary assets and liabilities denominated in foreign currencies are retranslated at the rate of exchange ruling at the balance sheet date. All differences are taken to the statement of funding and expenditure.

Fair values

Fair values of financial instruments are based on estimated fair values using such methods as net present values of future cash flows.

Notes to the Financial Statements

31 December 2006

3. SOFTWARE AND EQUIPMENT

	<i>Motor Vehicles AED</i>	<i>Software AED</i>	<i>Office equipment and furniture AED</i>	<i>Total AED</i>
Cost:				
At 1 January 2005	150,000	150,000	354,494	596,747
Additions	-	6,983	86,538	93,521
Disposals	<u>(150,000)</u>	<u>-</u>	<u>(16,316)</u>	<u>(166,316)</u>
At 1 January 2006	-	99,236	424,716	523,952
Additions	<u>-</u>	<u>7,276</u>	<u>47,801</u>	<u>55,077</u>
At 31 December 2006	<u>-</u>	<u>106,512</u>	<u>472,517</u>	<u>579,029</u>
Depreciation:				
At 1 January 2005	143,750	76,131	172,326	392,207
Charge for the year	6,250	14,644	72,300	93,194
Disposals	<u>(150,000)</u>	<u>-</u>	<u>(8,521)</u>	<u>(158,521)</u>
At 1 January 2006	-	90,775	236,105	326,880
Charge for the year	<u>-</u>	<u>6,787</u>	<u>84,414</u>	<u>91,201</u>
At 31 December 2006	<u>-</u>	<u>97,562</u>	<u>320,519</u>	<u>418,081</u>
Net carrying amount:				
At 31 December 2006	<u>-</u>	<u>8,950</u>	<u>151,998</u>	<u>160,948</u>
At 31 December 2005	<u>-</u>	<u>8,461</u>	<u>188,611</u>	<u>197,072</u>

*2006
AED* *2005
AED*

4. PREPAYMENTS AND OTHER RECEIVABLES

Licence fees recoverable	-	282,709
Prepaid expenses	1,178,454	1,113,797
Amount due from related parties	514,730	-
Other receivables	<u>450,504</u>	<u>48,064</u>
	<u>2,143,688</u>	<u>1,444,570</u>

5. BANK BALANCES AND CASH

Included in bank balances and cash of AED 19,001,210 (2005: AED 12,167,240) are bank deposits of AED 25,302 (2005: AED 7,016,642) with a commercial bank in Abu Dhabi. These are denominated in UAE Dirhams, short term in nature, with effective interest rate of 4.5% (2005: 4.5%).



6. ACCOUNTS PAYABLE AND ACCRUALS

	<i>2006</i> <i>AED</i>	<i>2005</i> <i>AED</i>
Accounts payable	869,391	96,855
Accrued expenses	307,614	113,236
Licence fees received in advance	<u>18,632,094</u>	<u>12,449,949</u>
	<u>19,809,099</u>	<u>12,660,040</u>

7. EMPLOYEES' END OF SERVICE BENEFITS

Movements in the provision recognised in the balance sheet are as follows:

	<i>2006</i> <i>AED</i>	<i>2005</i> <i>AED</i>
Balance at 1 January	1,301,430	883,215
Provided during the year	833,045	418,215
Employees' end of service benefits paid	<u>(83,949)</u>	<u>-</u>
Balance at 31 December	<u>2,050,526</u>	<u>1,301,430</u>

An actuarial valuation has not been performed as the net impact of discount rates and future increases in benefits is not likely to be material.

8. RELATED PARTY TRANSACTIONS

Related parties represent associated companies, shareholder, directors and key management personnel of the Bureau and companies of which they are principal Owners. Pricing policies and terms of these transactions are approved by the Bureau's management.

Transactions with related parties included in the statement of funding and expenditure are as follows:

	<i>2006</i> <i>AED</i>	<i>2005</i> <i>AED</i>
Licence fees (note 9)	14,249,000	9,952,325
Water and electricity charges	62,531	49,575
Others	16,614	12,268

ADWEA has also provided to the Bureau, at no cost, certain general and administrative services.

Compensation of key management personnel

The remuneration of the members of key management during the year was as follows:

	<i>2006</i> <i>AED</i>	<i>2005</i> <i>AED</i>
Short-term benefits	5,087,113	3,128,660
Related to employees' end of service benefits	1,279,852	822,515

Notes to the Financial Statements

31 December 2006

9. LICENCE FEES

	<i>2006</i> <i>AED</i>	<i>2005</i> <i>AED</i>
Licence fees received during the year	20,713,854	14,598,601
Licence fees received in advance, net of receivable fees:		
Beginning balance	12,167,240	7,520,964
Ending balance	<u>(18,632,094)</u>	<u>(12,167,240)</u>
	<u>14,249,000</u>	<u>9,952,325</u>

10. FAIR VALUES OF FINANCIAL INSTRUMENTS

Financial instruments comprise of financial assets and financial liabilities.

Financial assets consist of cash and bank balances and receivables and financial liabilities consist of payables.

The fair values of financial instruments are not materially different from their carrying values.

11. RISK MANAGEMENT

Interest rate risk

The Bureau is not currently exposed to interest rate risk, as the majority of its monetary assets and liabilities are not subject to interest rate exposure. Deposits with banks are repriced frequently.

Credit risk

The Bureau collects licence fees from its related parties. Licence fees are collected based on an annually forecast budget.

The Bureau limits its credit risk with regard to bank deposits by only dealing with reputable banks.

Credit risk is limited to the carrying values of financial assets in the balance sheet.

Liquidity risk

The Bureau limits its liquidity risk by monitoring its current financial position in conjunction with its cash flow forecasts and close communication with ADWEA on a regular basis to ensure funds are available to meet its commitments for liabilities as they fall due.

Accounts payable are normally settled within 30 days of the date of purchase.

Currency risk

Currency risk is limited since a significant proportion of Bureau's monetary assets, liabilities and transactions are in UAE Dirhams.

Bureau Governance

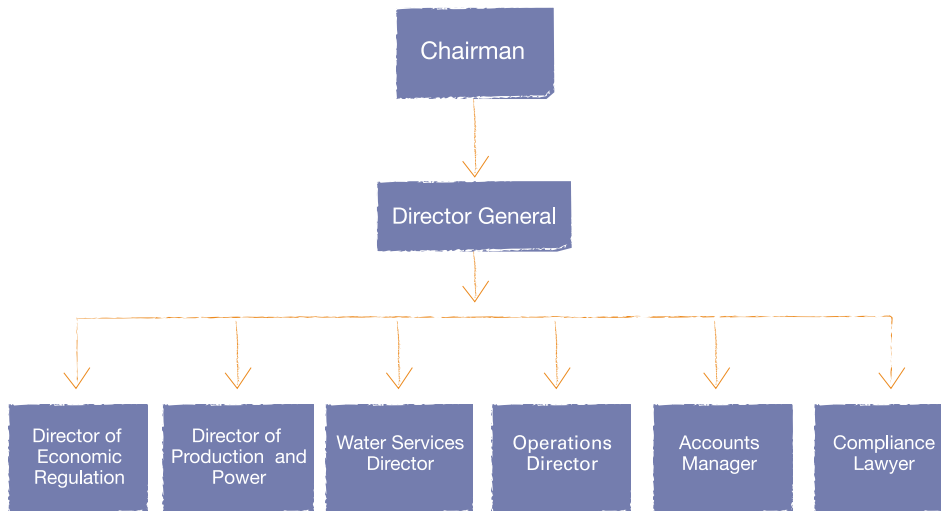


Structural changes

With the transfer of the wastewater company to the Sector and the subsequent issue of an appropriate licence, it was essential to restructure the Bureau and recruit more staff. The Technical Affairs Directorate was therefore separated into 'Production and Power' and 'Water Services'.

Line Directors and Senior Staff in post for the year:

Director of Economic Regulation	Mark Clifton
Director of Production and Power	Lindsay Hill
Water Services Director	Huw Thomas
Operations Director	Sameh Nemer
Accounts Manager	Hala Allaf
Compliance Lawyer	Gail Lewin



Board of Directors

The Bureau Board of Directors held seven meetings throughout the year. The membership is as follows:

Zaal Mohammed Zaal Al Hameeri	Chairman
Nick Carter	Director General
Ibrahim Mubaydeen	Member

Staff Changes

Staff numbers increased slightly over the year, mainly due to the restructuring. New starts were: Huw Thomas (Director of Water Services), Matthew Griffiths (Wastewater Manager), Noora Al Qeadra as a clerical assistant and Gail Lewin, from New Zealand, as a qualified lawyer.

Work Plan Achievements

The Bureau's published Annual Work Plan cited 48 major work streams to be started and ideally completed within the year. Staff completed 38 of these work streams and partially completed a further six.

	Total	Completed
Customer Services	6	5
Economic	17	14
Production/Power	15	12
Water/Wastewater	10	7

Policy Decision Group

This group was formed in 2006 with the primary purpose of making decisions using a collective responsibility approach. Members of the group are all first reports to the Director General, with the exception of the Operations and Accounts Managers. Issues referred to the Group are normally considered to be those of a substantive nature which may have far-reaching consequences for the Sector both now and in the future.

Consultants

With the increased complexities in the Sector and an increasing workload, the Bureau need to use both local and international consultants to undertake a wide range of work streams. The consultants listed below were used in 2006.

Alpha Data	IT Infrastructure Review
CH2M HILL	Bromate reduction study
Clyde & Co	Legal advice on Law No (17) of 2005
Injazat	IT Health Check
Sinclair Knight Merz (SKM)	Network companies Electricity CAPEX Review
WS Atkins	Network companies, Water CAPEX Review



PART 4

Public Records of Activities and Documents

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New Licences

Abu Dhabi Sewerage Services Company (ADSSC) 07 March 2006 ED/L01/016

Sewerage, Wastewater Treatment and Disposal Licence.

The licence was formally issued in March 2006, following a period of consultation with ADSSC and other interested parties. The effective date of ADSSC's licence is 21 June 2005.

Emirates SembCorp Water and Power Company 26 September 2006 ED/L01/017

Water Desalination and Delivery Licence

Issued to Emirates SembCorp Water and Power Company (SembCorp) upon their acquisition of UWEC's water and power assets. The licensed activities relate to the production of 100 MGD of water by desalination and the delivery of this water to the Abu Dhabi transmission operator (TRANSCO).

Modifications

Modifications to a licence are made subject to agreement by the appropriate licence holder.

Al Ain Distribution Company (AADC) 01 January 2006 ED/L01/007

Water and Electricity Distribution and Supply Licence

Abu Dhabi Distribution Company (ADDC) 01 January 2006 ED/L01/008

Water and Electricity Distribution and Supply Licence

Abu Dhabi Water and Electricity Company (ADWEC) 01 January 2006 ED/L01/006

Power and Water Procurement Licence

Abu Dhabi Transmission and Despatch Company (TRANSCO) 01 January 2006 ED/L01/005

Water and Electricity Transmission and Despatch Licence

The above-listed licence modifications were necessary to give effect to the Price Control Three (PC3) changes for the period 2006 to 2009 inclusive.

Gulf Total Tractebel Power Company (GTTPC)

The Bureau issued a Public Notice on 27 November 2006 of its intention to modify GTTPC's licence, subject to conditions, in 2007.

The modification related to the expansion of generation capacity by a further 250 MW.

Derogation

Abu Dhabi Transmission and Despatch Company (TRANSCO) 03 April 2006 ED/L06/003

Specific derogation

Derogation in respect of the application of a Correction Factor in 2007 for the Water Transmission Business, associated with the waiver of penalty interest on the over-recovery of regulated water system revenue in 2006.

Revocation

Union Water and Electricity Power Company (UWEC) ED/L01/014

Water Desalination and Delivery Licence

Following the sale of UWEC's assets and the issue of a new licence to SembCorp, the Bureau revoked UWEC's licence.

Licence Exemption

Licence Exemption Order No.1 01 December 2006 ED/L04/001

In order to undertake regulated activities in the Sector, a person or company must be licensed or exempted from licence by the Bureau.

On 1 February 1999, the Bureau issued Licence Exemption Order No.1 (Exception) to ADNOC and its Affiliates and certain other persons, including small producers and self suppliers of water and electricity.

The existing Exemption was modified and re-issued with a view to undertaking substantial changes in the future.

Code of Practice

Guaranteed and Overall Service Standards 01 June 2006 ED/C01/001

Issued initially as a vehicle for the distribution companies to monitor their performance against the Standards and to establish reporting criteria to the Bureau.

Revision 1 to the Standards was issued in December of the same year.

Consents

Consents

Consents confer rights and obligations on licence holders. Please note revisions or renewal of consents are listed for the sake of clarity.

Arabian Power Company (APC)

25 June 2006 ED/L03/009 (Rev 2)

Consent for the supply and sale of demineralised water to specified customers Consent re-issued and extended to produce 141,000 gallons per month of demineralised water to specified customers.

Abu Dhabi Distribution Company (ADDC)

05 December 2006 ED/L03/015

Consent for Central Laboratory Services

ADDC applied for the renewal of an existing consent to provide Central Laboratory Services to other organizations; valid until end of 2009.

Abu Dhabi Water and Electricity Company (ADWEC)

01 June 2006 ED/L03/025

Consent to trade Electricity with Dubai.

With the Emirates National Grid connection made between the largest two emirates, ADWEC sought the Bureau's consent to sell electricity to, and buy electricity from, the Dubai Electricity and Water Authority (DEWA).

Abu Dhabi Transmission and Despatch Company (TRANSCO)

20 December 2006 ED/L03/026

Consent for the Abu Dhabi to Dubai transmission connection.

TRANSCO were advised in writing by the Bureau on 5 June 2006 of our intention to give consent to this connection, subject to certain conditions. Formally issued on 20 December 2006.





Consultation Papers

Consultation papers are designed to seek views from a range of stakeholders and other interested parties on matters which may have a significant impact on licensees or customers.

Customer Issues

Electricity Supply Regulations

CD/R01/011 (Rev2)

This was the second consultation issued to distribution companies dealing specifically with the safe provision of electricity to customers' connection points.

Electricity Wiring Regulations

CD/R01/010

Covering the installation and maintenance of electrical wiring standards in customers' premises

Network Companies

Electricity Transmission Code Amendments

CD/C01/012

The recommendations made by TRANSCO, as custodians of the code. Related to an expansion of user connection requirements, especially in regard to harmonics.

Reform of Electricity DUoS Charges

CD/E03/001

Proposed changes to Distribution Use of System charges levied by distribution companies so as to promote more cost-reflective price signals to customers.

Water Storage in Ground Tanks

CR/T03/002

Policy proposals were issued to stop the practice of installing ground tanks to store water, especially in new-build villas.

Addendum to PC3 Final Proposals

CR/E02/025

A small addendum was agreed for the treatment of distribution and supply assets acquired by AADC and ADDC from the remote services company (RASCO).

Price Control Review for ADSSC

CR/E02/026

First consultation paper issued to the wastewater company seeking their views.

General

Incident Reporting Regulations – Amendments **CD/R01/006**

Changes proposed to allow easier reporting by licence holders.

Water Quality Regulations Revisions **CD/R01/009** **CD/C01/013**

Two documents were issued regarding proposed changes to the existing Regulations.

Above Ground Fuel Storage Tanks **CD/R01/008**

It is proposed to issue a document regulating the storage of back-up fuel at production plants. The issue of this paper was the start of a consultation process which will eventually lead to the issue of an appropriate set of regulations.

Scale of charges – Revisions **CR/E01/003**

Proposals for a modification to the Bureau's fee charging structure were issued. This modification split fees into operational and specific project categories.

Publications

Title	Publication No.
Annual Work Plan 2006	ER/P01/008
Guide for Real-Estate Developers	ER/P01/009
Arabic Annual Report for 2005	ER/P02/011
English Annual Report for 2005	ER/P02/012

Copies are available upon request; charges may apply.

Reports

Reports are produced either by Bureau staff or externally appointed consultants. They are not in the public domain.



Compliance Audits

The Bureau carried out audits of five sector companies in relation to their compliance with the requirements of the Transmission Code. These audits highlighted non-compliances such as failure to submit generator outage plans on time, under-frequency trip settings being outside prescribed limits and failure to submit load forecast data. These non-compliances were corrected by the relevant companies following the Bureau's audits.

Electricity Transmission Code Compliance Audit for TRANSCO	ER/T03/013
Electricity Transmission Code Compliance Audit for ADWEC	ER/T03/014
Electricity Transmission Code Compliance Audit for ADDC	ER/T03/015
Electricity Transmission Code Compliance Audit for AADC	ER/T03/016
Electricity Transmission Code Compliance Audit for BPC	ER/T03/017

Investigations

Abu Dhabi Distribution Company	ER/T04/001
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Incident at 33 kv switchboard located at Bainounah Power Company (non-fatal)

Abu Dhabi Distribution Company	ER/T04/002
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Incident in the Eastern Region of the Emirate associated with cleaning high-voltage line equipment (non-fatal).

Glossary of **Key Terms** used in this Publication

ADWEA	Abu Dhabi Water and Electricity Authority
ADWEC	Abu Dhabi Water and Electricity Company (the single-buyer)

Production Companies

AMPC	Al Mirfa Power Company
APC	Arabian Power Company
BPC	Bainounah Power Company
ECPC	Emirates CMS Power Company
GTPPC	Gulf Total Tractebel Power Company
SCIPCO	Shuweihat CMS International Power Company
SembCorp	Emirates SembCorp Water and Power Company
TAPCO	Taweelah Asia Power Company
UANPC	Umm Al Nar Power Company
UWEC	Union Water and Electricity Company

Network Companies

AADC	Al Ain Distribution Company
ADDC	Abu Dhabi Distribution Company
ADSSC	Abu Dhabi Sewerage Services Company
RASCO	Remote Areas Services Company
TRANSCO	Abu Dhabi Transmission and Despatch Company

Other common terms

BST	Bulk Supply Tariff
IWPP	Independent Water and Power Producer
MG	Million Gallons *
MGD	Million Gallons per Day *
MW	Mega Watts
MWh	Mega Watt hours (Note: 1 unit of electricity equals 1 kilo Watt hour (kWh))
PC3	Price Control Three
ppb	parts per billion
PWPA	Power and Water Purchase Agreement

* Unless stated all gallons are Imperial



Note:

All publications, consultation documents and current licences are available in PDF format for free download on the Bureau's website: www.rsb.gov.ae



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