مكتب التنظيم و الرقابة
Regulation & Supervision Bureau

Annual Work Plan 2009 and 5-Year Sector Timeline 2009 - 2013

النسخة العربية متوفرة ايضاً

CONTENT

This publication is aimed at an informed reader; that is, someone who is familiar with the water, wastewater and electricity sector.

The Bureau's publications, which include regulations, annual reports and consultation documents, are available in PDF format for free download from the Bureau's website (www.rsb.gov.ae).

FROM THE DIRECTOR GENERAL

Statement of intent

Our annual work plan for this year is produced with a five-year timeline for key sector activities so as to follow Government planning cycles.

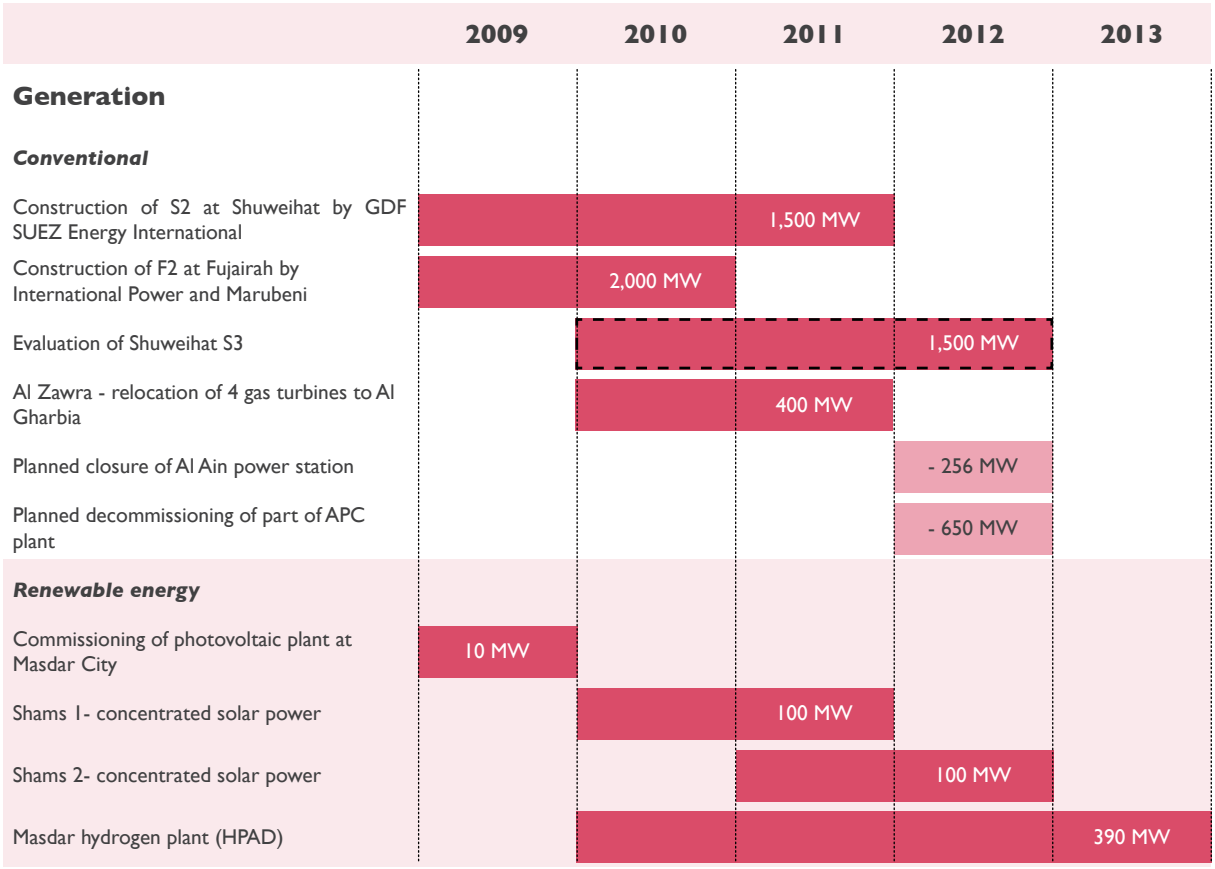
The work plan is both challenging and ambitious, but we have recruited additional staff and, for the most part, we will continue to produce the bulk of our work in-house. We believe this to be a major advantage in an increasingly outsourced world, as it provides a more tailored and knowledge-based regulatory body for our customers and licence holders to deal with.

By far the biggest challenges we face involve the diversity of electricity production, embedded generation and private licence applications, especially for wastewater and recycled-water operations.

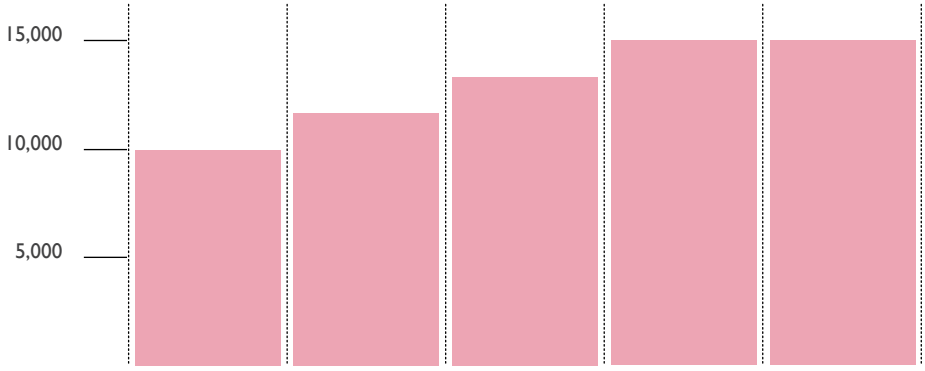
Welcome to our 2009 work plan.

Nick Carter

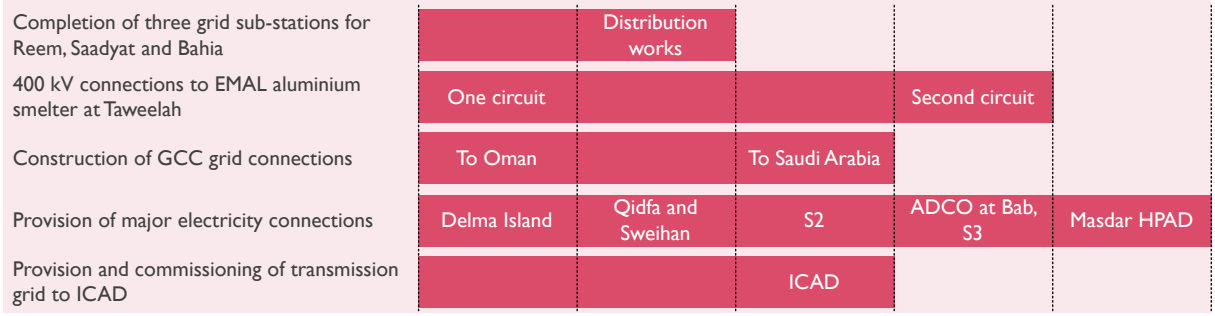
ELECTRICITY FIVE-YEAR TIMELINE



Available generation capacity (MW*)



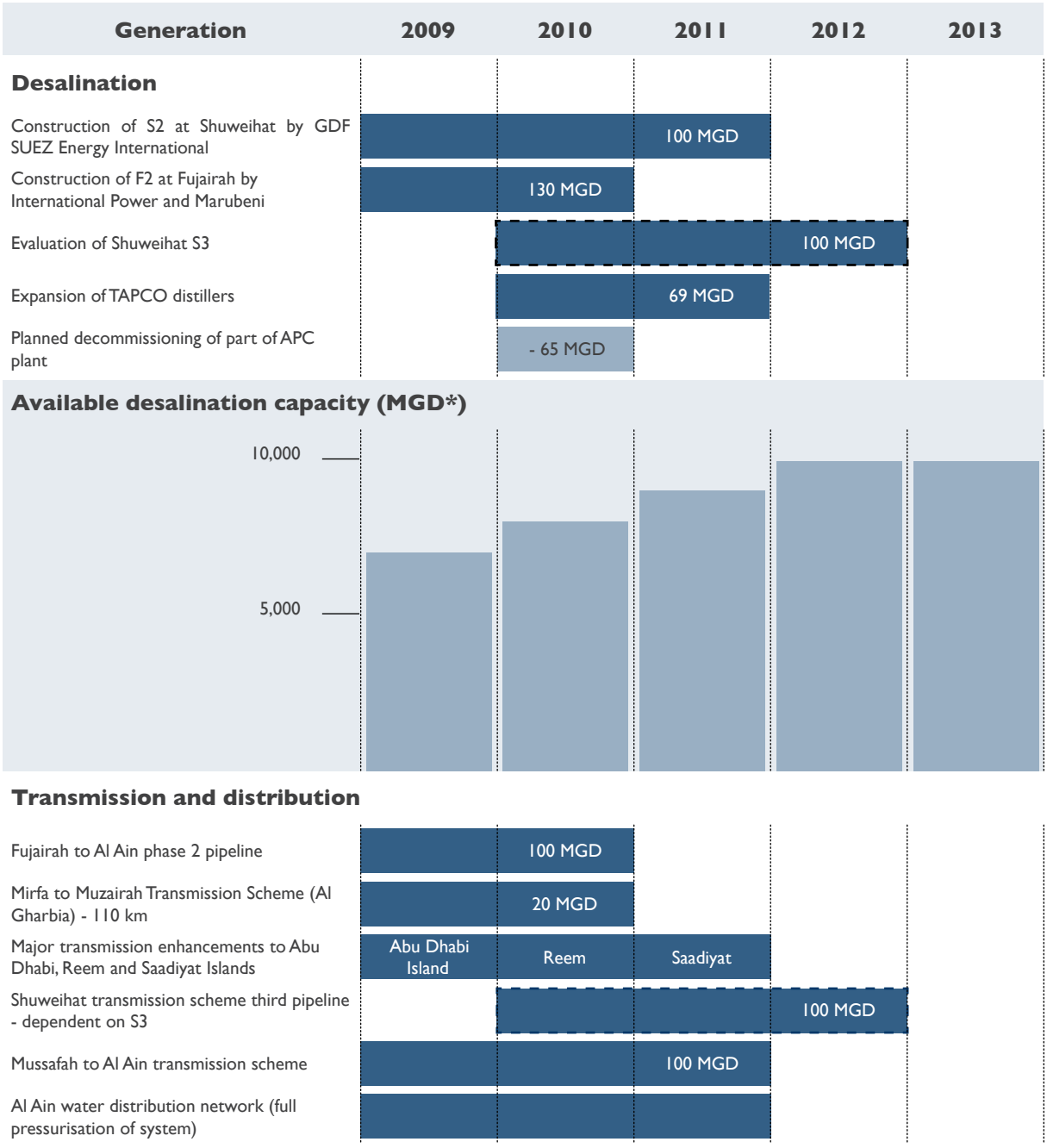
Transmission and distribution



*MW = megawatt

Sources: ADWEC – Statement of Future Capacity Requirements 2008 - 2030
TRANSCO's 2008 Five-year Planning Statement (2009 – 2013)

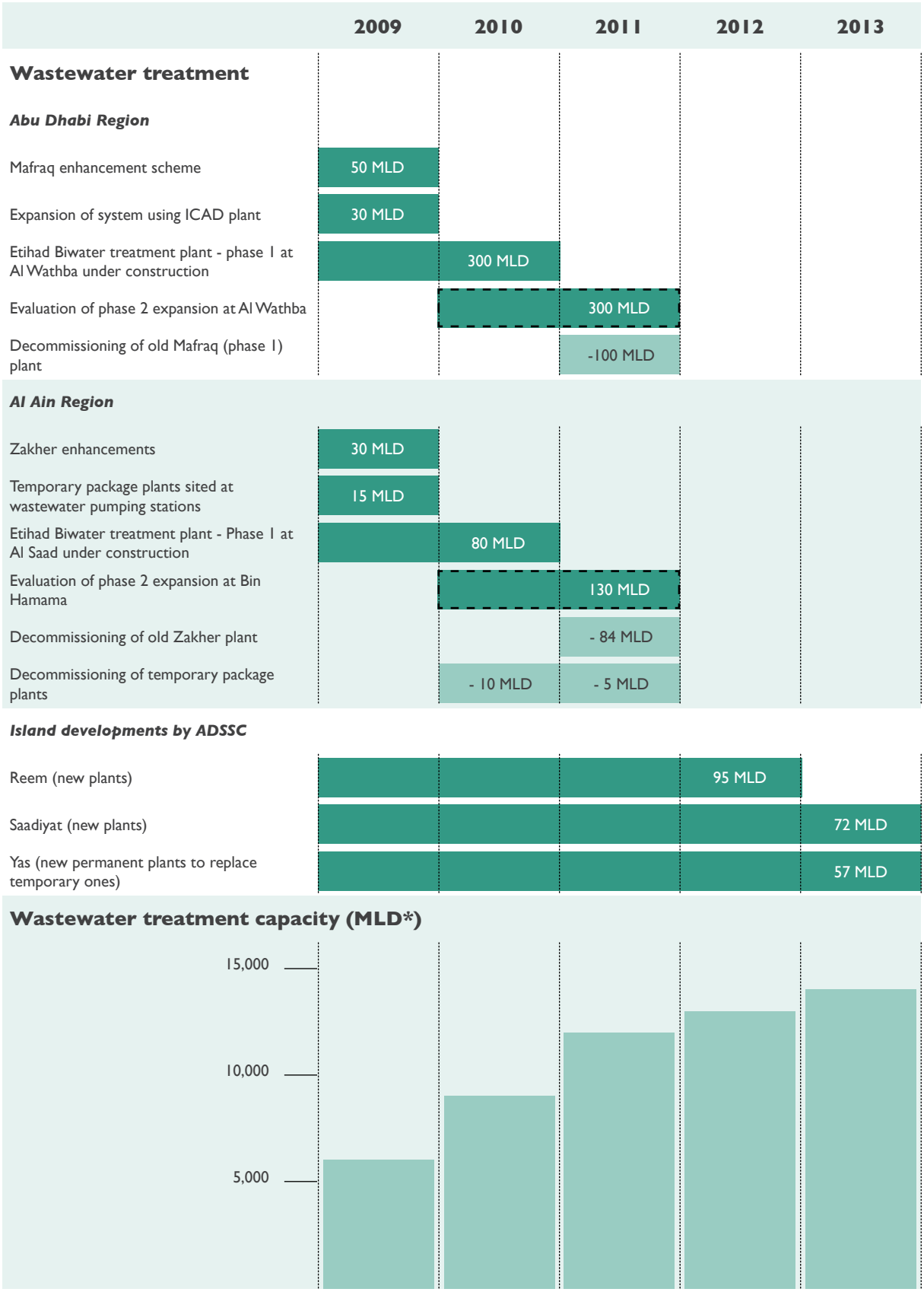
DRINKING WATER FIVE-YEAR TIMELINE



*MGD = million gallons per day

Sources: ADWEC – Statement of Future Capacity Requirements 2008 - 2030
TRANSCO's 2008 Five-year Planning Statement (2009 – 2013)

WASTEWATER FIVE-YEAR TIMELINE



*MLD = megalitre per day

Source: ADSSC's Five-year Planning Statement 2008

CUSTOMER SUPPORT

Advanced customer metering data

The installation of state-of-the-art customer metering progressed well during 2008, and the data acquisition systems are partly in place. The Bureau will review and report on the data retrieval capabilities of the new metering systems, with a view to feeding this information into other work streams such as customer demand assessment.

Customer bill payment options

The delivery by the distribution companies of a sufficiently wide range of bill payment options has been slow. Both companies were therefore told that they must have a range of payment options in place by the end of 2008, or price control penalties would be applied. Both companies have made progress in this area. However, some essential payment services are yet to "go live" to the public. If full implementation is not completed by the end of 2009, then price control penalties will be applied from 2010.

Guaranteed and Overall Service Standards for ADSSC

Abu Dhabi Sewerage Services Company's (ADSSC's) Guaranteed and Overall Service Standards are being finalised for introduction in soft form this year. Payments to customers, in the event of ADSSC's failure to meet any of the standards, will commence in 2010.

Regulatory audit - quality of service

Guaranteed customer standards setting minimum service standards and performance levels customers can expect from their distribution company have now been operational for two years. An audit will be undertaken during the year to ensure the companies have sufficiently sound collection of data and reporting mechanisms in place to record their performance against the Standards.

Worst-served customers

Last year, we required the two distribution companies, as part of their five-year planning statements, to report on High Voltage (HV) circuits experiencing the highest number of outages. In 2009, we propose to introduce a formal procedure to report customers experiencing repeated outages, with a view to including an appropriate performance indicator in the next Price Control Incentive Scheme. This procedure can be published as part of the revised Regulatory Instructions for Customer Interruption Reporting.

Additional work streams

- Code of Practice on the efficient use of water and electricity
- Customer complaint handling procedures for ADSSC
- Internal management of customer complaints

PRODUCTION – POWER AND WATER

Control of bio-fouling at seawater intakes

Seawater intake channels to desalination plants, screens and process plants are protected from the worst effects of bio-fouling by dosing the intake stream with high concentrations of chlorine. This limits the establishment of crustaceans and other marine growth on exposed cement and metal surfaces, and reduces downtime and maintenance costs for the producers. However, the use of chlorine as a biocide for untreated seawater carries the risk of environmental damage and the formation of toxins that could compromise the desalination process; it is also costly. An internal desk-top study has now been concluded in which a number of alternative environmental and economic solutions have been investigated. This will go out for consultation early this year and, with consultancy collaboration, this project will be finalised before the year end.

Plant efficiency study

We developed a key performance indicators monitoring methodology for the production sector during 2007, and all production licence holders reported against this methodology last year. Detailed analysis of this data has shown a difference between licensees' efficiency calculations, making benchmarking comparisons between such licensees difficult.

We intend to analyse all measurement and calculation methodologies used by the sector's production licence holders to assess their efficiency. We will also examine the various international standards for efficiency measurement of production plants. Once this analysis has been completed, we will develop a positioning paper which will seek to establish a standard methodology for efficiency measurement.

Renewable generation technology

Last year, we issued the sector's first generation licence based on renewable energy technology (wind turbine). Since then, further renewable initiatives in the electricity generation field have commenced. During 2009, we will be involved in the significant assessment of technology proposals as part of the licensing procedures for these renewable technologies.

Additional work streams

- Approval of 2010 Bulk Supply Tariff (BST)
- Production Performance Report

ELECTRICITY

Demand forecasting procedures review

Procedures are already in place whereby the distribution companies, TRANSCO and ADWEC (the single buyer), prepare demand forecasts as part of their planning statements. However, there is a need to review the way these forecasts are related to each other, with explicit information on assumptions and data sources. We will issue a short report detailing the findings and recommended actions for improvement to the overall sector forecasting process. This will lead to a formal document entitled 'Regulatory Instructions and Guidelines for Demand Forecasting'.

Distribution planning and design standards

In 2008, the distribution companies began preparing Distribution Planning and Design Standards, under the work of the Distribution Code Review Panel. We intend to review and assist in finalising these Standards, to be issued as an annex to the existing Distribution Code.

Electrical contractors - register

Licensed Contractors are currently registered by the distribution companies, following an assessment of the Contractor and its key representatives. It is proposed that the Bureau should establish a register of Competent Persons employed by Licensed Contractors (i.e. those that have passed the approved training mentioned above). This register will be available to the public, who may need to use the services of such persons.

Electricity Wiring Regulations – Revision 1

An amendment to the Electricity Wiring Regulations was issued in 2008; this included items of clarification as well as supporting information requested by interested parties. Revision 1 of the Regulations will be printed in the first quarter of 2009.

Electricity Wiring Regulations – training course

It is proposed that all licensed contractors will be required to attend a training course (for selected members of their staff) in order to renew their licence to design and install electrical wiring systems. These courses will be drafted by the Bureau's consultant and delivered by a number of nominated training organisations. The courses will be self-funded and include an examination.

GCC interconnection review

The Bureau will be required to participate in the work of the GCC Interconnection Authority, including the review of interconnection agreements and technical standards.

Additional work streams

- Protection systems review
- Review of TRANSCO, AADC and ADDC five-year planning statements

DRINKING WATER

Assessment of the need for fluoridation of water supplies

A desk-top study has been concluded on the potential benefits and consequences of fluoridating the water supply in the Emirate of Abu Dhabi. A number of key concerns remain to be addressed, and the Bureau will invite comments from key stakeholders through a short consultation process early in the year. The final recommendations will be made after taking into consideration the concerns of the Health Authority in Abu Dhabi as well as the economic, operational and management issues involved in this complex matter.

Drinking water safety plans

Drinking water safety plans adhere to the WHO's guidance on best practice in terms of protecting the safety of potable water supplies. It requires the process and network operating owners to evaluate all possible risks which may impact on the quality of the water along the complete supply chain from seawater abstraction to consumers' taps. They are also required to put in place mechanisms and processes to ensure that a reliable and safe supply to the customer is maintained. All production, transmission and distribution companies have been issued with a preliminary outline of our proposals, and a full consultation will take place early in 2009. Implementation will be on a case-by-case basis over the next two years and be subject to audit.

Unaccounted-for water

In line with the Government's strategy of sustainability and the overarching need to understand and then reduce water losses within the transmission and distribution systems, we have developed a simple water model which follows the international templates for this purpose. In 2009, this model will be performance-tested by the network companies and implemented after acceptance.

Water Quality Regulations - Revision 3

Following the completion of field studies and a technical evaluation into the causes of the formation of bromate in the water networks, our consultants found that the overriding factor resulting in higher than normal bromate levels is the management of the chlorine residual at the point of production and within the transmission system. This work follows on from significant bromate reduction through the introduction of new disinfection processes and the stopping of sea-water blending at production plants.

Given the above, the Water Quality Regulations will be revised to reflect the new requirements for strict chlorine control; some changes will also be made to the parameters required. A consultation will be undertaken prior to the issue of the final regulations.

Additional work streams

- Evaluation of chlorination control systems
- Production of a guide to the revised Water Supply Regulations.
- Review of five-year planning statements for network companies
- Water quality performance indices

WASTEWATER

Development of security standards

Security standards enable the measurement of licence holders' performance against key obligations to network performance, and are concerned with the planning, development, operation and maintenance of assets. We are proposing to work with ADSSC to define and establish appropriate security standards before the year end.

District cooling and use of condensate water

There is a need to understand any new requirement for non-potable water use. District cooling plants are significantly more efficient in their energy use, yet waste considerable volumes of water. The innovative reuse of collected condensate water for irrigation or other uses is also to be considered, prior to the issue of any guidance.

Irrigation: methodologies and best practice

We will work closely with the Municipalities (Parks and Recreational Facilities Directorate) and other concerned parties with regard to the creation of a best practice code for irrigation methodologies and management. Ultimately, an emirate-wide irrigation company or companies may prove to be the best way of delivering treated water to all parts of the Emirate.

Return-to-sewer and wastewater tariffs

We will continue to work with ADSSC to understand cost allocation throughout their various businesses (collection, treatment and disposal) and gather data on the costs associated with different customer categories and wastewater discharges. This will provide valuable information for the preparation of a cost-reflective tariff framework based on the actual load exerted on each component of the wastewater treatment system.

Trade Effluent Regulations / Wastewater Residuals Reuse Regulations

In 2008, we concluded our initial consultation on both Regulations and produced revised drafts. This year, a regulatory impact assessment will be carried out and a final public consultation will be undertaken with various focus groups, prior to the issue of these two Regulations.

HEALTH, SAFETY AND ENVIRONMENT

Compliance audit of the Incident Reporting Regulations

The revised Incident Reporting Regulations were issued last year. We intend to audit all licence holders to ensure that they are meeting their obligations under these Regulations and that the Regulations are fully complied with.

Development of health and safety criteria for licensee contractors

The sector's recent fatalities have been associated with contractors employed by licensees. Our investigations have identified, amongst other issues, a failing of Health, Safety and Environmental (HSE) assessment procedures in the approved contractor certification processes of licensees. Therefore, we are to investigate the feasibility of establishing minimum HSE criteria within the pre-contract certification process to ensure contractors appointed by licence holders have and maintain an effective health and safety management system.

Development of HSE reporting guidelines

HSE monthly reporting is a key factor in monitoring licensee performance. To ensure a consistent approach for licensees to report to the Bureau, and, in line with the proposed HSE management system being developed by the Environment Agency – Abu Dhabi, we intend to produce specific guidelines for monthly reporting.

Streetworks and Access Regulations - Code of Practice

The Streetworks and Access Regulations were issued at the end of 2008. The Regulations require licensees to develop a Code of Practice to ensure the works they carry out complies with the Regulations. In consultation with licensees, we will develop a Code of Practice which will provide guidance on operational procedures so as to ensure overall compliance with the Regulations.

Additional work streams

- Development of waste management guidelines

TARIFFS AND ECONOMIC CONTROLS

2009 Price Controls Review (PC4)

The Bureau will establish new price controls to apply to AADC, ADDC, ADSSC, ADWEC and TRANSCO from the start of 2010 (to be termed the fourth price controls, or PC4). The price controls take the form of a cap on their annual revenues and include incentives for improved efficiency and service performance.

As at previous reviews, we intend to follow a transparent consultation process in order to set the new price controls. This process commenced in late 2008 with the publication of the first consultation paper. Draft proposals should be issued by mid-year, with the final proposals in September 2009.

Annual Review of large-user tariff

Customers with demand in excess of 1 MW are entitled to apply to the distribution companies (AADC or ADDC) for a large-user tariff. Last year, we agreed with the distribution companies a time-of-day tariff to be made available to all large users connecting directly to the transmission system. This year, we will review this tariff against out-turn costs for 2008 and against projected Bulk Supply Tariffs (BST) and Transmission Use–of-System (TUoS) charges for 2009, to ensure the tariff continues to be cost-reflective.

Confidence-grading system for AIS

The Annual Information Submission (AIS) is required to be audited by an independent "technical assessor", to confirm that the data and methods used by licensees to complete their submission are reasonable. The Bureau will develop a more sophisticated confidence-grading system than has been used to date, similar to that applied by regulators in other jurisdictions.

Development of a DUoS charging methodology

The Distribution Use-of-System (DUoS) charge is the charge the supply business pays to the distribution business for use of the distribution system. Given the possibility of new entrants taking supplies from different parts of a distribution company's network (for example 11 KV supplies), it is essential that a DUoS charging mechanism is established. Such a charging mechanism would also facilitate the calculation of special cost-reflective tariffs for large users, and we propose to investigate the possibility of disaggregating the DUoS charge according to the voltage level of a user's connection.

Regulatory reporting guidelines for AIS

The AIS contains detailed financial and technical data for the recent past, and licensees' forecasts for the next five years (AADC, ADDC, ADSSC, ADWEC and TRANSCO). During 2009, the Bureau intends to publish formal guidance to help licensees complete the submission.

Additional work streams

- 2008 costs, tariffs and subsidy review
- Approval of 2009 BST Exceptional Charges
- Approval of 2010 BST and TUoS

OBJECTIVES

The primary objectives of the Bureau are established in Law No (2) of 1998. They are:-

- To ensure, so far as it is practicable for it to do so, the continued availability of potable water for human consumption and electricity for use in hospitals and centres for the disabled, aged and sick.

Overall objectives are: -

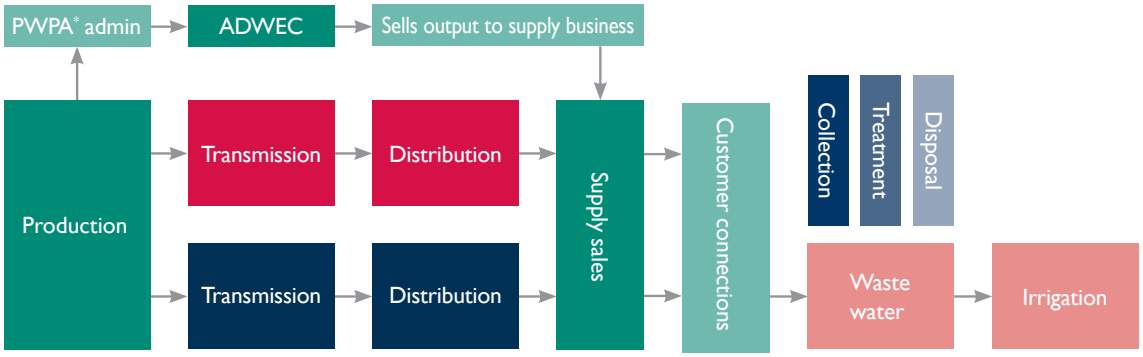
- To apply sound economic and technical regulation and supervision to all licence holders throughout the Emirate of Abu Dhabi's water, wastewater and electricity sector.
- Ensuring full licensee compliance with all licence conditions, regulations, codes and other documents in force.
- Establishing sound documented management procedures for all Bureau functions.
- Ensuring the welfare and development of all Bureau staff in order to enable them to meet the objectives given in this work plan.
- Representing the interests of all stakeholders in the water, wastewater and electricity sector, especially customers.

The above recognise the issue of Law No (2) of 1998, and its amendments in Law No (19) of 2007, concerning the Regulation of the Water and Electricity Sector in the Emirate of Abu Dhabi.

In addition the Wastewater Sector is subject to Law No (17) of 2005 concerning the establishment of the Abu Dhabi Sewerage Services Company, as amended by Law No (18) of 2007 and Law No (12) of 2008; and Law No (2) of 1998 as amended by Law No (19) of 2007.

SECTOR STRUCTURE

The structure is illustrated in terms of its supply chain components and Regulated Activities and all companies undertaking the activities shown are in possession of a licence issued by the Bureau.



* PWPA = Power and Water Purchase Agreement

Production of power and water is mainly in private hands and connects directly to the strategic transmission company (TRANSCO) to enable the efficient movement of bulk supplies of water and electricity to major demand and load centres throughout the Emirate. All water and power output is purchased by a single buyer, the Abu Dhabi Water and Electricity Company (ADWEC).

The distribution and supply (sale) of water and electricity to customers is undertaken by distribution companies who are in possession of a Distribution and Supply Licence. Currently, there are two distribution companies in the sector: Al Ain Distribution Company (AADC) which covers the old municipality region of Al Ain and Abu Dhabi Distribution Company (ADDC) which covers the old municipality region of Abu Dhabi including Al Gharbia (the Western Region).

The wastewater collection network and treatment plants are predominantly owned and operated by the Abu Dhabi Sewerage Services Company (ADSSC), with disposal of treated sewage effluent (TSE) to irrigation companies.

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