



# DEWA SUSTAINABILITY REPORT 2013



## OUR VISION

A Sustainable World-Class Utility.

## OUR MISSION

Meeting customer satisfaction and promoting Dubai's vision through delivery of electricity and water services at a world-class level of reliability, efficiency, safety and environment by a competent workforce and effective partnerships; supporting resources sustainability.

## OUR MOTTO

For Generations To Come.



**Sheikh Zayed Bin Sultan Al Nahyan,**  
Founder of UAE, 1918-2004.

“ We cherish our environment because it is an integral part of our country, our history and our heritage. On land and in the sea, our forefathers lived and survived in this environment. They were able to do so because they recognised the need to conserve it, to take from it only what they needed to live, and to preserve it for succeeding generations. ”



His Highness  
**Sheikh Khalifa bin Zayed Al Nahyan,**  
President of the United Arab Emirates.

“ The UAE is striving to develop and boost its rich resources and expertise in the international energy markets and enhance its leading role as a world centre for renewable energy research and development. ”





His Highness  
**Sheikh Mohammed bin Rashid Al Maktoum,**  
Vice President and Prime Minister of the United Arab Emirates  
and Ruler of Dubai.

“ We recognize that preserving our energy resources will be one of the greatest challenges in our drive towards sustainable development. This, however, will not materialize unless the different facets of our society adopt energy conservation principles in their core values. The future generations will be the chief beneficiary of our achievements and the best judge of what we accomplish in this field. ”



His Excellency  
**Saeed Mohammed Al Tayer**  
 Managing Director and Chief Executive Officer, DEWA.

## A MESSAGE FROM THE MD AND CEO

### Dear stakeholders,

At DEWA, we have a vision to become a Sustainable World-class utility by supplying the energy and water that our customers need in a reliable and sustainable way and as a result contributing effectively to social, economic, and environmental development in Dubai.

Sustainability has been an integral part of DEWA's vision and mission as we have continued to work hard to place sustainability at the heart of our business strategy and embed sustainability more fully into everything we do.

### Our first external Sustainability Report

In 2013, for the first time, we engaged with our external stakeholders to understand their expectations of DEWA with respect to sustainability performance and management.

One message resonated loud and clear: our stakeholders would like greater transparency and more information about DEWA's sustainability performance and challenges. This report demonstrates that we have listened and acted on their feedback.

This is DEWA's first external sustainability report and in it we celebrate our many successes, reporting on our performance in 10 key areas covering economic, environmental and social issues across our supply chain, operations, employees and customers.

### Our future priorities

We recognise that the pursuit of sustainability is a journey that requires us to have a long term perspective, a collaborative mindset and a willingness to learn and innovate.

### Our new integrated sustainable business strategy for 2014-2018 incorporates the following priorities:

- **Our economic priorities:** to optimise our costs, revenue and investments and to support sustainable economic development in Dubai through operational and service excellence, strategic innovation, Emiratization and a diverse local supply chain.
- **Our environmental priorities:** to rationalise the use of natural resources and minimise our environmental footprint.
- **Our social priorities:** to ensure that we adhere to the highest standards of governance, business ethics and social responsibility while delivering value to our customers, employees, suppliers, business partners, local communities and government.

We look forward to continued business growth and believe that success on our sustainability journey is integral to achieving this. DEWA aims to be a leader in sustainability, contributing towards both Dubai's and the UAE's strategy for sustainable development and green growth through alignment with the Dubai Integrated Energy Strategy 2030, the UAE Vision 2021 and the National Agenda while also meeting the projected needs of the Dubai Expo in 2020.

It is our intention to continue to engage in regular dialogue with our stakeholders about what it means to be a sustainable world-class utility and to report annually on our sustainability performance.



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## ABOUT THIS REPORT

This is DEWA's first externally published annual sustainability report. Its purpose is to communicate our sustainability performance, management practices and philosophy to our stakeholders.

### Guidelines

In preparing this report we have made reference to Global Reporting Initiative (GRI) G4 Sustainability Reporting Guidelines, 2013 and the Electric Utilities Sector Supplement (published in early 2014). The GRI is a globally recognised sustainability reporting standard, used by companies around the world to communicate progress on sustainability.

This report contains standard disclosures from the GRI G4 guidelines.

### Scope of the report

The data and statements contained in the report relate to and include all of DEWA's core operations and processes under DEWA's management control unless otherwise stated.

Data from Joint Ventures and subcontractors is not reported unless otherwise stated.

### Reporting period

The performance data provided in the report covers the reporting period 1 January to 31 December 2013 unless otherwise stated. Ongoing initiatives and activities commenced in earlier years are included as are activities and achievements completed in earlier years. However, in the main the report covers the most important initiatives and activities of 2013.

### Queries, feedback and suggestions

Our approach to managing and reporting our sustainability performance continues to evolve. We would be delighted to receive your views on this, our first sustainability report. For any queries, feedback or suggestions please get in touch with Nadia Nasser bin Lootah at [sustainability@dewa.gov.ae](mailto:sustainability@dewa.gov.ae)

You can find an electronic version of this report on our website: <http://www.dewa.gov.ae>





## DEWA AT A GLANCE

The Dubai Electricity and Water Authority (DEWA) is a government owned utility with the sole responsibility for supplying electricity and water to the Emirate of Dubai.

### Our activities

DEWA owns, operates and maintains power stations and desalination plants, aquifers, power and water transmission lines and power and water distribution networks in Dubai.

### Energy Sourcing

Our power generation and water desalination stations are mainly fuelled by natural gas. We buy gas exclusively from the Dubai Supply Authority (DUSUP), which is responsible for procuring, transmitting, storing and delivering to end-customers all natural gas in the Emirate of Dubai.

### Our business interests

Although our main business activities are in the production and supply of electricity and water, DEWA also has a number of other related business interests:

- Emirates Central Cooling Corporation (70% interest)
- Dubai Carbon Centre of Excellence (35% interest)
- Ducab - High-Voltage Cable Systems (25% interest)
- Mai Dubai (100% interest)
- Consultancy JV with RWE (50% interest)
- Etihad ESCO (100% Interest)

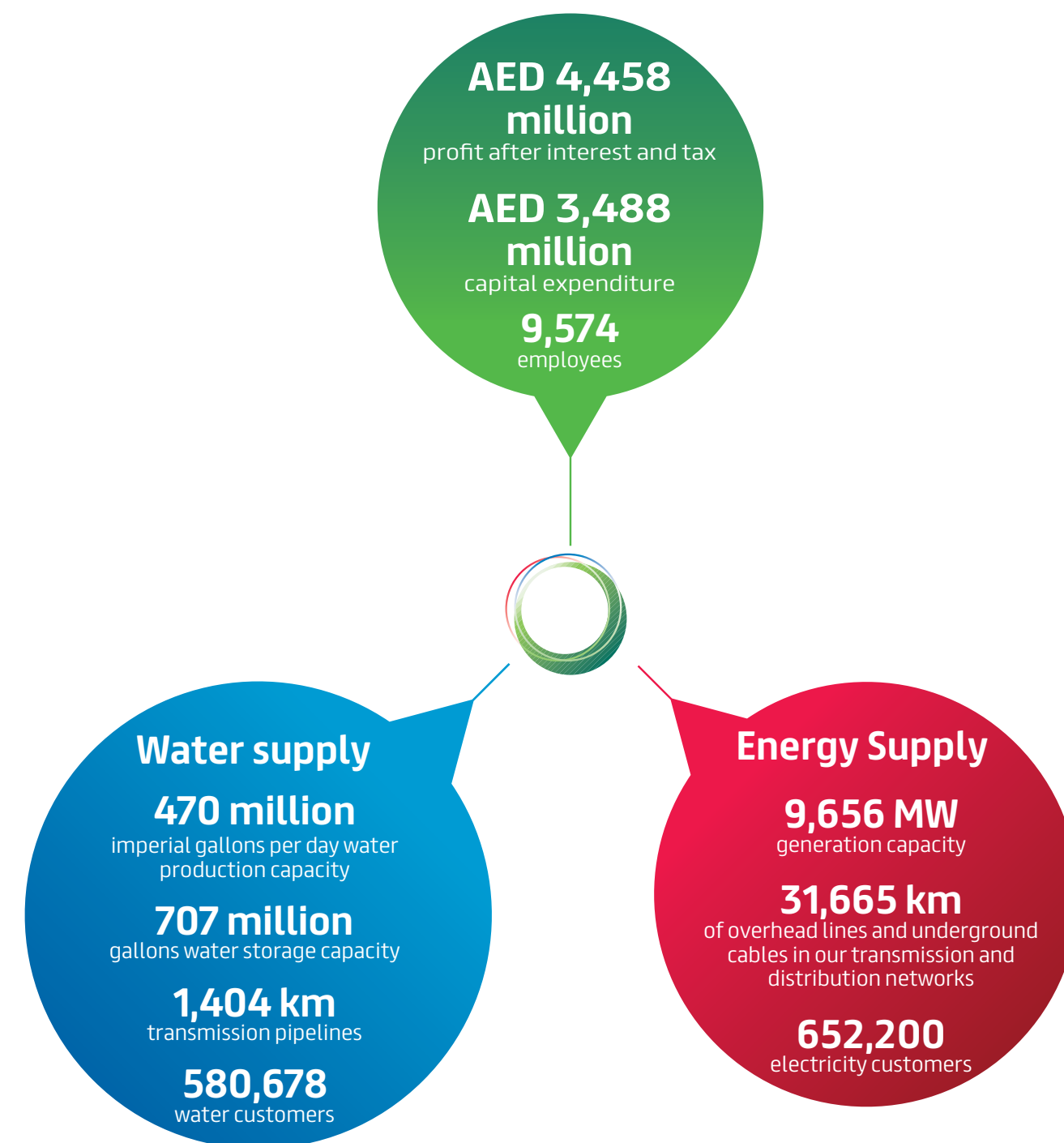
### Regulation

DEWA operates as an independent company regulated by the Dubai Supreme Council of Energy. The Supreme Council of Energy is responsible for energy policy development, planning and coordination in Dubai and has broad regulatory powers including the power to set the water and electricity tariffs charged by DEWA.

### Restructuring

DEWA has undergone restructuring in three of our divisions (Distribution Power division, Transmission Power division and Information Technology division) during 2013.

## KEY FACTS ABOUT OUR BUSINESS IN 2013

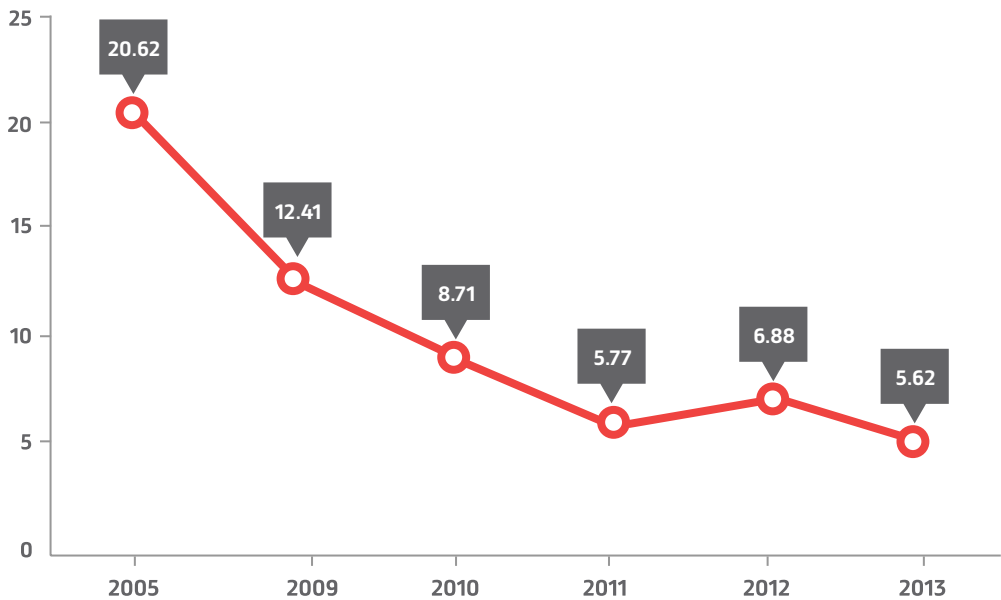


# 2013 SUSTAINABILITY MANAGEMENT HIGHLIGHTS

## Availability and Reliability

DEWA continued to improve the availability and reliability of its electricity supply to a world record of 5.62 customer minutes lost in 2013, compared to more than 15 customer minutes lost in the best countries of the world.

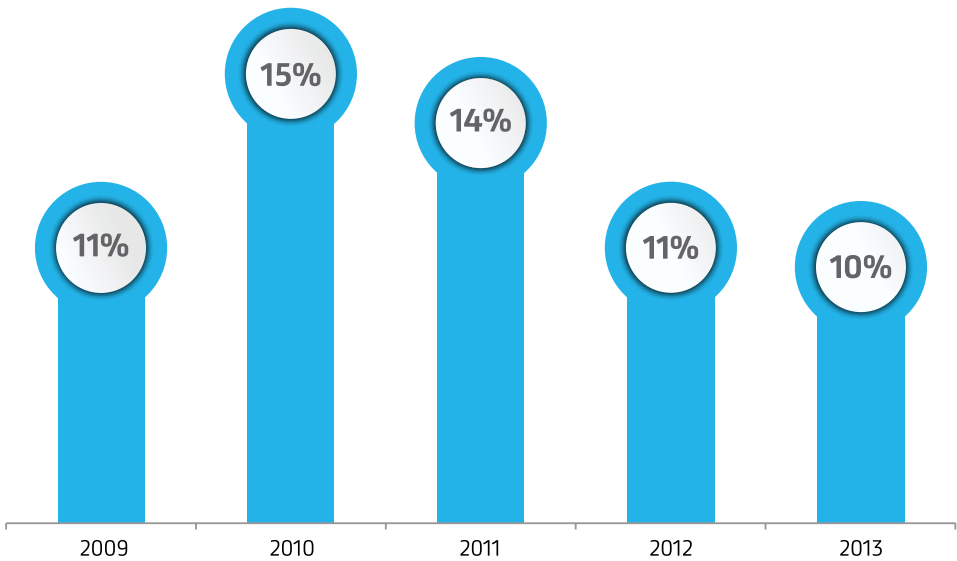
Customer minutes lost



## Reducing Water Losses

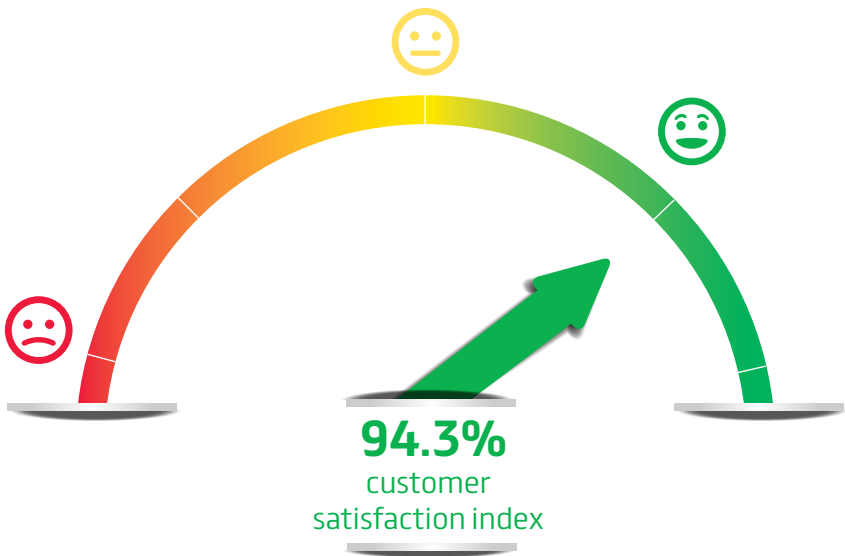
We reduced unaccounted losses from our water distribution network including leakage, unmetered supply and technical losses to 10% of total water produced, which is a lower than in many advanced economies.

Unaccounted for water (as a % of total water produced)



## Customer Satisfaction

In 2013, DEWA achieved 94.3% on the Dubai Government Excellence Program (DGEP) customer satisfaction index (CSI) results, where DEWA ranked 1st among Dubai Government organisations in the large category.



## Emiratisation

DEWA upholds the government’s vision of a competitive economy driven by knowledgeable and innovative Emiratis. In 2013, UAE nationals held 81.8% of our top management and leadership positions, 40.01% of our middle management positions, and 31.04% of our non-supervisory positions within DEWA.

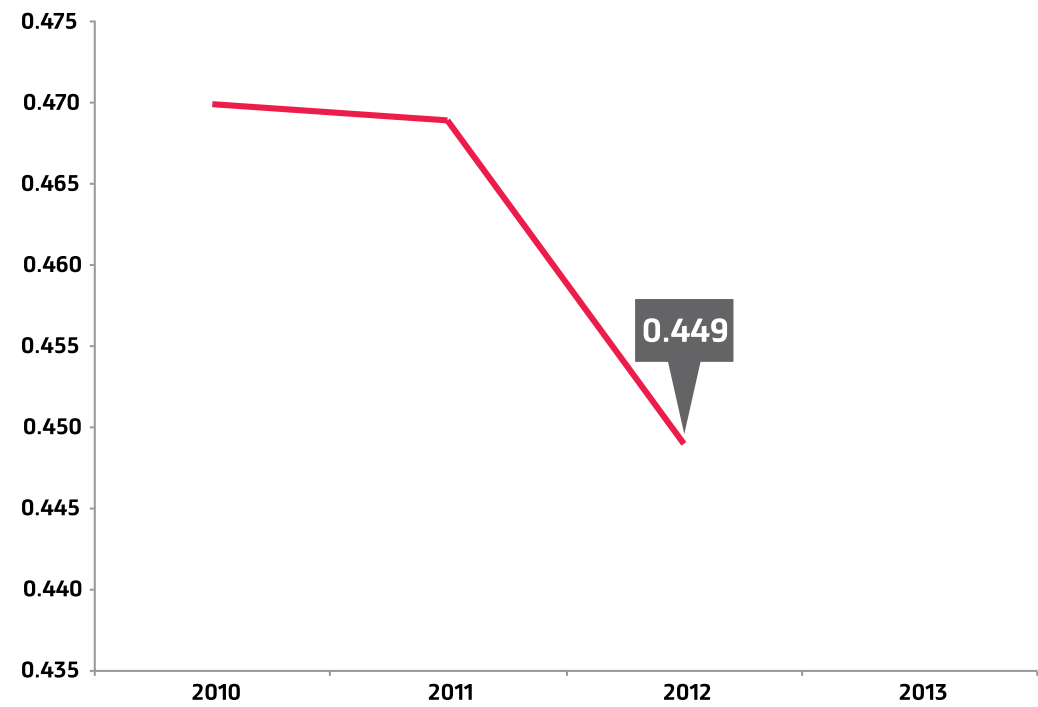




2012 Carbon Baseline Established

We measured our total 2012 carbon emissions from electricity generation and water production and from our offices and fleet. Now we have a 2012 baseline from which to set a carbon reduction target. Carbon intensity of generation fell to 0.449 tonnes of CO2e per MWh of electricity generated.

Carbon intensity of electricity generation tCO2e per MWh generated



Safety Performance

Accidents and incidents (as measured by our Accident Incident Ratio) fell 41% in 2013 taking the total decline since 2009 to 77%.

Accident/incident ratio (AIR)

(Number of RIDDOR Accidents x 100000 / Total number of staff)



Note: AIR is an annual total and excludes contractors, RIDDOR = Reportable Injuries, incidents and diseases

Transmission and Distribution Lines (2013)

| Type        | Voltage Category (kV) | Length of Transmission and Distribution lines (km) |
|-------------|-----------------------|--|
| Overhead    | 400                   | 876  |
|             | 132                   | 437  |
|             | 33                    | 113  |
|             | 6.6 & 11              | 711.6  |
| Underground | 400                   | 22.888   |
|             | 132                   | 1543.56  |
|             | 33                    | 2022   |
|             | 6.6&11                | 25939  |

External Recognition

The British Safety Council awarded DEWA the Globe of Honour for Environment for the second consecutive year and the Sword of Honour for Health and Safety for the sixth consecutive year.

Green Procurement Programme

DEWA launched a new green procurement programme in 2013 and has continued to work on integrating sustainability requirements into our supplier assessments.

Governance for Sustainability

We established a cross functional, cross divisional team to help co-ordinate our approach to sustainability management within divisions and to oversee the implementation of our sustainability strategy. In addition, we have a Climate Change and Sustainability section.



# THE SUSTAINABILITY CHALLENGE FOR DEWA AND DUBAI

Since the formation of the United Arab Emirates in 1971, energy and natural resources have been closely linked to its growth. Today, availability and the use of energy and water have become key factors in our efforts to promote economic and social development and the preservation of the environment. As the sole supplier of power and water to Dubai's residents and a major employer and investor in Dubai, Dubai's major sustainability challenges are also challenges for DEWA.





## THE CHALLENGE

## THE RESPONSE

### Energy security

Dubai's electricity production relies heavily on natural gas, but with limited reserves, Dubai is a net importer of gas. Electricity demand is expected to continue to grow strongly, driven by strong growth in GDP, which will increase Dubai's reliance on imported energy and raise concerns about energy security and energy prices.

### Energy diversification

The Dubai Integrated Energy Strategy 2030 sets the roadmap for DEWA to diversify its generation mix, so that by 2030, gas will provide 71% of Dubai's total power output, nuclear energy will provide 12%, Clean Coal 12%, and Solar Energy will provide 5%. You can read about our energy diversification strategy in the Market Performance section.

### Energy efficiency

Due to the need for air-conditioning and desalinated water in their hot and arid climate, Gulf countries have traditionally been amongst the most energy-intensive economies in the world. The inefficient use of electricity and water, due to lack of awareness and outdated equipment, has also made a negative contribution.

### Demand side management (DSM) and supply efficiency

The Dubai Integrated Energy Strategy also sets an ambitious target to reduce energy demand in Dubai by 30% by 2030. DEWA has a unique role to play in investing in supply side efficiency and is a major contributor to demand side management efforts in Dubai. You can read about our approach in the Energy and Climate Change section.

### Climate change risks

The issue of climate change has risen to the top of the UAE political and business agenda as the urgency and global scale of the problem becomes increasingly evident. The fragile nature of the UAE's own natural environment and resources means that we are particularly vulnerable to the impacts of climate change. Possible local risks include rising temperatures and sea levels and increased water stress.

### Climate change adaptation

These events could significantly impact our coastal power and water generation plants as well as place an increasing importance on desalinated water resources. We are considering climate change adaptation plans to prepare our business for the future. For example, higher temperatures will lead to increased demand for air conditioning and reduced electricity generation efficiency.

## THE CHALLENGE

## THE RESPONSE

### Carbon emissions

Producing electricity using fossil-fuel sources like natural gas generates greenhouse gases, such as carbon dioxide (CO<sub>2</sub>). These emissions contribute towards the greenhouse effect, a major cause of global climate change. Climate change is an increasing concern for communities, society and government, from a local to an international level.

### Carbon reduction

We believe that the challenges posed by climate change demand coordinated and decisive action. By adopting fuel efficient and low carbon techniques and processes, we are able to supply electricity and water more cost-effectively while reducing our environmental impact. You can read about our carbon reduction strategy in the Energy and Climate Change section.

### Water efficiency and security

The majority of Dubai's water is produced through desalination of seawater, which is an expensive and energy intensive process, which is influencing the natural environment through brine discharges into the Gulf. Despite this, water is used relatively inefficiently in Dubai. However, growing environmental awareness is leading to an increased interest from customers in information to help them manage their water usage.

### Sustainable water supply

At DEWA, we recognise that future water and energy plans must aim for a more sustainable balance, and we are investing in innovation and technologies that can produce potable quality water in a more sustainable way. We are also working with our partners to seek out opportunities for optimising efficiency, recycling and re-using water. See the Water section of this report for more detail.

### Environmental protection

The nature of our business requires the use of raw materials that result in unavoidable emissions to the environment. We must balance this impact with the need to provide essential products for the continued health and prosperity of Dubai's residents. By integrating sophisticated environmental management systems to govern our operations, our aim is to challenge every aspect of our business to improve efficiencies and reduce our environmental footprint.

### Environmental impact reduction

We aim to tackle our environmental impact directly by adopting innovative solutions to reuse and recycle our waste materials, introducing efficient processes to reduce our raw material requirement and continue to develop our systems and processes to ensure that we are able to measure and effectively respond to our impacts. See the Environmental Protection section of this report for more detail.

## THE CHALLENGE

## THE RESPONSE

### Diversification of the economy

UAE's GDP is highly dependent on the extraction of fossil fuels and related industries. As outlined in the UAE Vision 2021 and National Agenda, the UAE seeks non-oil real GDP growth of 5% by 2021. To achieve this, we need to diversify the economy and attract long-term foreign direct investment, whilst ensuring that economic growth is both equitable and sustainable. The vision is supported by HH Sheikh Mohammed bin Rashid Al Maktoum's Green Economy for Sustainable Development Initiative, which intends to encourage investments in the green economy and green technologies to create job opportunities for UAE citizens.

### Providing a climate for green growth

DEWA contributes to the wider economy in several important ways: through its operations, employment, investments and procurement. DEWA provides high quality and reliable electricity and water enabling economic development. We are a major employer and create indirect employment in Dubai through our approach to procurement, which will expand our local supply base and incentivise sustainability in our supply chain. In addition, we are investing in low-carbon and renewable energy innovation. You can read about the economic impact of these activities in the Economic Development section.

### Emiratisation

Developing people's full potential is one of the core goals of the UAE Vision 2021. The year 2014 will see a renewed drive towards Emiratisation as the Dubai Government sets its sights for doubling the current share of UAE nationals employed out of the total workforce across all sectors.

### Human capital development

DEWA aligns with and supports local and federal strategies in Dubai and UAE. We fully support the upward trend in Emiratisation and we are positioning ourselves as a key enabler for this strategy in the utility sector. We believe that increasing the proportion of UAE nationals in our workforce presents a significant opportunity to build local skills and capabilities, which will in turn support the sustainable economic development of Dubai. Our approach is explained in the Employees section.

## THE CHALLENGE

## THE RESPONSE

### Raising standards across our supply chain

DEWA began the launch of its green procurement programme in 2013, with the aim of incorporating sustainability criteria into its procurement process. However, many of our suppliers do not have the awareness or the necessary environmental certifications that DEWA is seeking, particularly small and medium sized locally-based suppliers. With a national ambition for small and medium sized enterprises to contribute 70% to non-oil GDP by 2021, engaging these organisations in our supply chain will become increasingly critical.

### Capacity building for our suppliers

DEWA has been pro-actively raising awareness of its green procurement programme and what the new requirements will entail with its suppliers. We have held workshops at major exhibitions, held supplier meetings at DEWA and made site visits to our suppliers to begin the process of communicating our new programme. We are committed to continuing the dialogue with our suppliers as our green procurement programme continues to be implemented across DEWA. Our approach is explained in the Suppliers section.

### Rising stakeholder expectations

Our stakeholders have fed back to us that they would like more open communication with us and further opportunities to collaborate. At the same time, Dubai's communities and society have increasingly high expectations for both public and private sector organisations to deliver value not only in financial terms, but also in terms of sustainability performance.

### Stakeholder engagement strategy

In response to stakeholder feedback, we are developing a stakeholder engagement strategy that will enable us to build strong long-term relationships with a broad set of stakeholders including government, customers, business partners, society and employees and other stakeholders. Together with our stakeholders we aim to address the issues noted above. Our approach to engagement is explained in the Stakeholders and Community section.





# OUR VISION FOR SUSTAINABILITY

## A Sustainable World-class Utility

Sustainability is central to DEWA's mission, vision and values. At DEWA, we understand that being a sustainable world-class utility is not just about our bottom line. As a government agency and a major employer, DEWA has an important role to play in Dubai's economy and society. As a utility, we recognise the impact that our operations have on the environment. To us, being a sustainable world-class utility means running a responsible business - one that manages its social, economic and environmental impacts in addition to financial health - so that we can continue to provide electricity and water to meet Dubai's growing needs, for generations to come.

## OUR VISION

Our vision statement captures our ultimate goal and aspirations for the type of organisation that DEWA will become

**A sustainable world-class utility.**

## OUR MISSION

Our mission statement describes our core purpose and why we exist.

**Meeting customer satisfaction and promoting Dubai's vision through delivery of electricity and water services at a world-class level of reliability, efficiency, safety and environment by a competent workforce and effective partnerships; supporting resources sustainability.**

## OUR MOTTO

**For Generations to Come**



### Waleed Salman, EVP of Strategy and Business Development, shares his views on sustainability at DEWA:

#### Q: What does sustainability mean to DEWA?

A: Sustainability is encapsulated in our motto – 'For Generations to Come'. DEWA exists to supply Dubai with electricity and water. For us, sustainability means managing our business in such a way that we can continue supplying electricity and water for generations to come. Our operations are closely tied to Dubai's environment, economy and society. We need to manage our impacts on all of those aspects, as well as our financial health, in order to continue delivering on our mission in the long-term.

#### Q: How is DEWA moving towards its sustainability leadership vision?

A: We have made sustainability a core part of our organisational culture and corporate identity. We believe that true world-class leadership in sustainability can only be achieved by integrating sustainability into everything we do. That's why, in 2013, we started a process to evolve our corporate strategic plan to put sustainability at the very centre of the way we run our organisation. We have already made big steps forward

in our investments for a sustainable future, such as completing the first phase of our 13-megawatt Solar Park. As a utility, we want to continue to lead the Middle East region in sustainability, and demonstrate our leadership on the world stage.

#### Q: What are the biggest challenges and opportunities that sustainability will create for DEWA in the years to come?

A: Climate change will continue to be a challenge for us – both in terms of reducing our greenhouse gas (GHG) emissions and in terms of changes in Dubai's climate affecting our operations. But we see opportunities here too. Diversifying our energy mix towards lower-carbon alternative fuels not only improves energy security, but it also presents DEWA with an opportunity to show our leadership in emerging fields of technology and opens up new markets. Looking ahead, we also see social and economic trends that will create challenges and opportunities for us. Our stakeholders expectations are changing and we will adapt the way we engage with them to ensure that we are meeting those expectations.

# OUR STRATEGY

Sustainability has been an integral part of DEWA’s vision and mission and a core theme in our business strategy since 2012 . During 2013 we have continued to work hard to place sustainability at the heart of our business and embed sustainability more fully into everything we do.

In 2013, each of DEWA’s divisions put in place a strategic action plan to implement our corporate strategy. These action plans led to the roll-out of approximately fifty sustainability-related initiatives over the last year, each of which was planned and executed to ensure alignment with our strategic objectives for driving forward the sustainability agenda.

At the same time, we have continued to refine our understanding of what sustainability means for DEWA

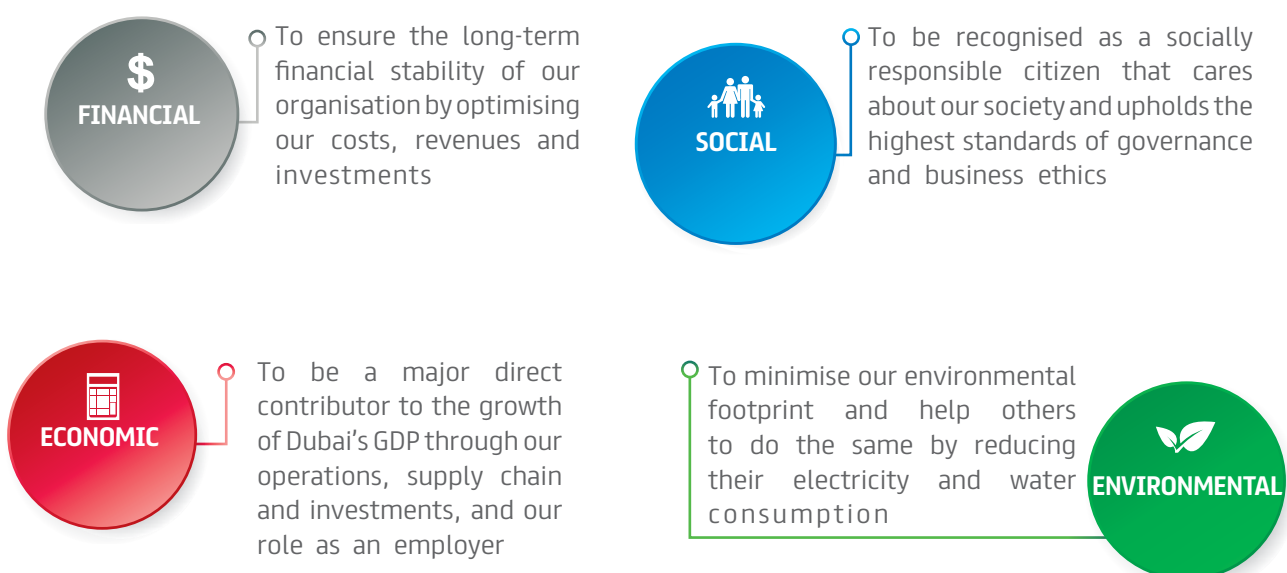
and during 2013 we have evolved our business strategy to ensure that it fully supports our vision of becoming a sustainable world-class utility.

Increasingly, our understanding of sustainability is extending beyond our own operations, into our supply chains, our communities, the wider society and Dubai’s economy. This reflects the views of our stakeholders, who expect DEWA to lead as a responsible corporate citizen. In response, we have raised our ambitions for sustainability even further. Our strategy has evolved to place overarching economic, social and environmental goals alongside financial goals, giving us a fully integrated sustainable business strategy.





# STRATEGIC AMBITIONS FOR 2014-2018



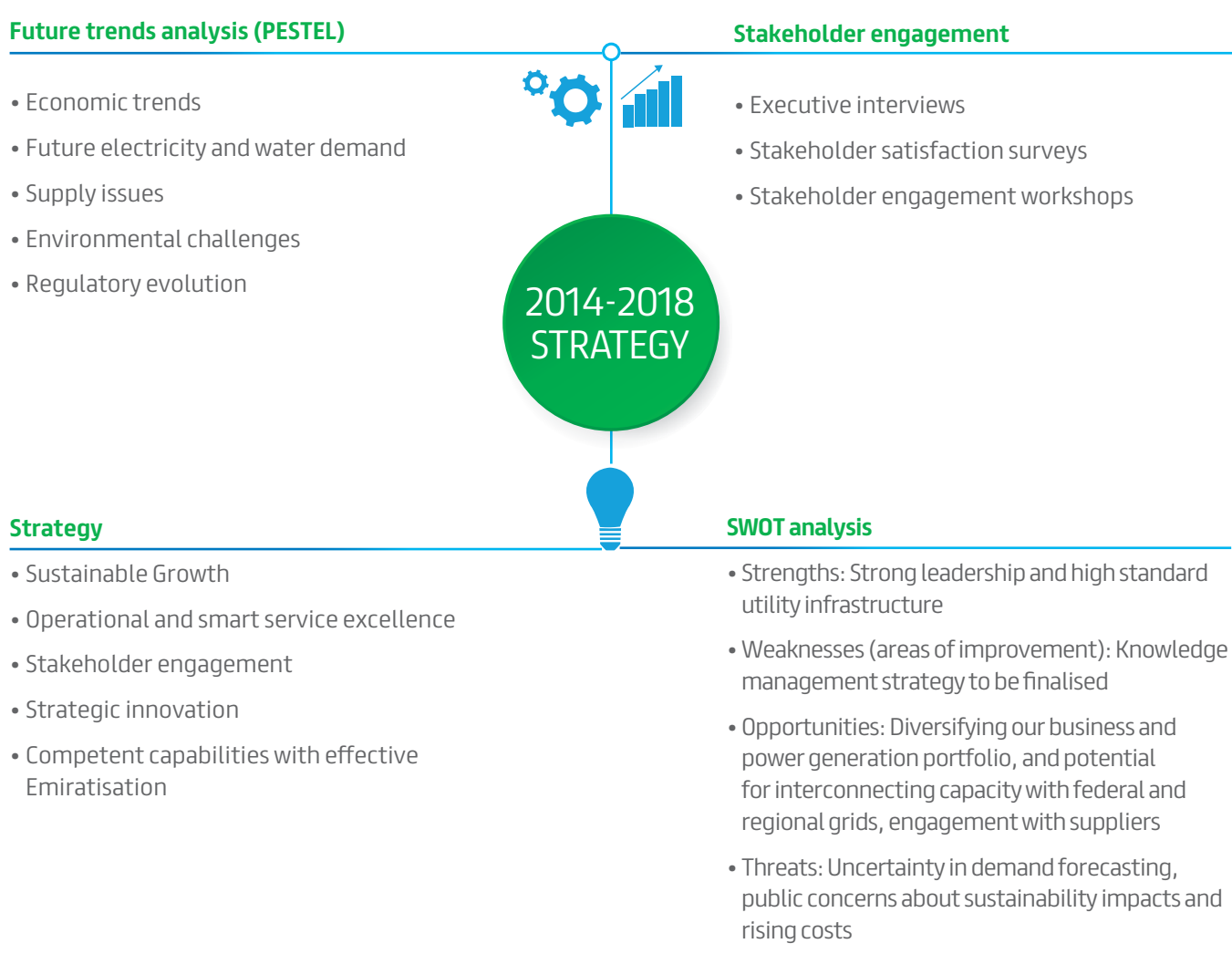
There are five themes in our revised 2014-2018 strategy through which DEWA will achieve its long-term sustainability ambitions:



# OUR STRATEGIC PLANNING APPROACH











Each year as part of our strategic planning approach, we conduct thorough strategic research and analysis which provides us with a holistic inside-out view of our operational context. We examine major emerging political, social, environmental, technological, legal, industry and market trends as well as our historical performance identify our strengths, weaknesses, threats and opportunities. We consider a number of scenarios based on emerging trends and underlying drivers. We then identify the strategic implications over a five-year horizon. We have recently finalised our 2014-2018 strategy which introduces our collective insights for not only how we define sustainability but also for how we will tackle it.

Our 2014-2018 strategy is supported by a sustainability roadmap that outlines the key targets and milestones that we will strive to achieve over the next five years on our journey towards sustainability leadership. Our strategy and roadmap are aligned to plans at the Dubai Emirate and UAE Federal level, including the UAE National Agenda 2021, Green Economy Initiative, Dubai Strategic Plan, the Dubai Integrated Energy Strategy 2030 and HH Sheikh Mohammed bin Rashid Al Maktoum's initiative, 'A Green Economy for Sustainable Development'.



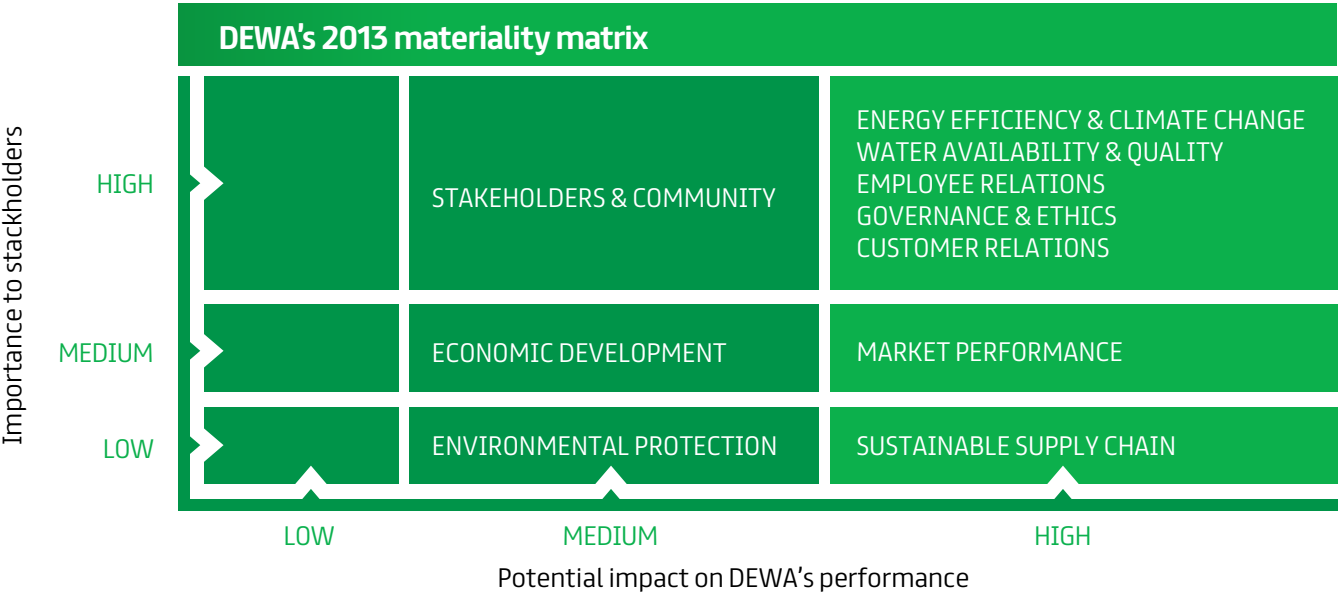
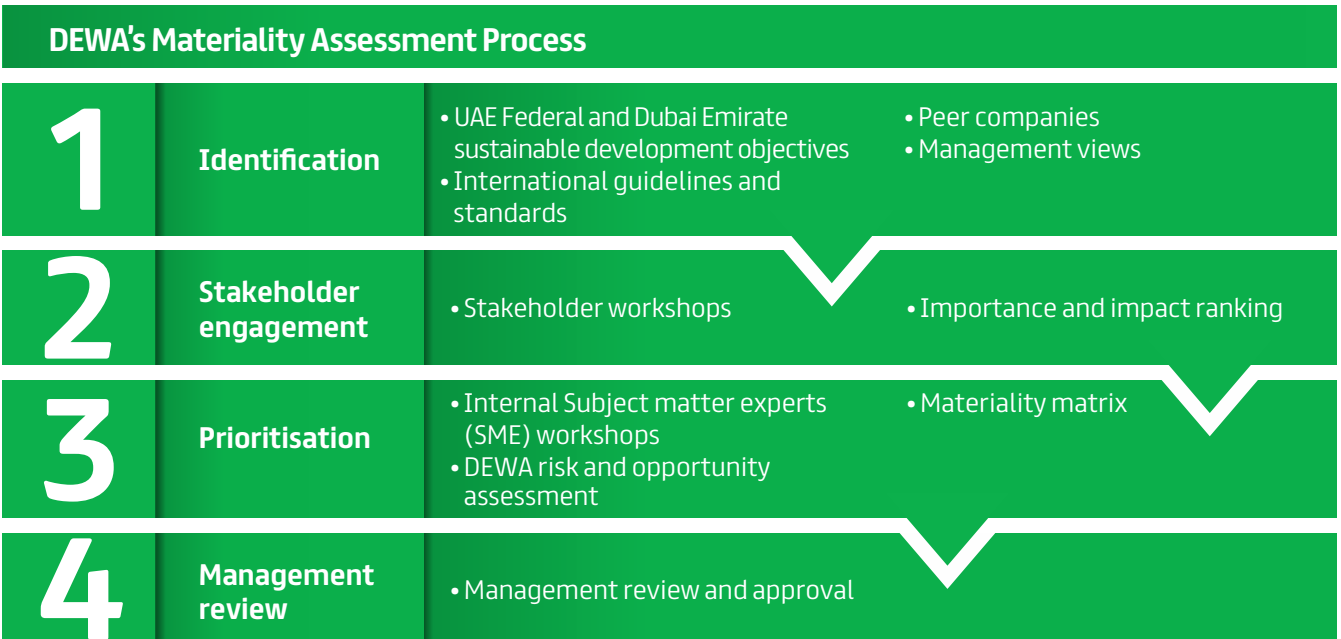
# OUR 10 KEY AREAS FOR ACTION

Our corporate strategy, which is deeply rooted in the discipline of sustainability thinking, focuses on ten key areas for action encompassing our most significant sustainability issues and where our efforts can achieve the biggest improvements. This report provides information on our management approach and performance in each of these ten areas.

|   | Key area for action        | This area for action is about...   |
|---|----------------------------|--|
|    | Economic development       | • Maximising our contribution to Dubai's sustainable economic development through our operations, investments, employment and supply chain   |
|    | Market performance         | • Ensuring the long term supply of energy and water for Dubai<br>• Maintaining system reliability, availability, quality and efficiency  |
|    | Customers                  | • Ensuring world-class customer service and customer satisfaction<br>• Protecting our customers' rights and safety<br>• Developing services to help our customers minimise their energy and water consumption  |
|   | Energy and climate change  | • Researching new sources of low carbon energy<br>• Helping our customers minimise their energy use<br>• Minimising our contribution to climate change by managing GHG emissions in our operations and supply chain<br>• Adapting our business to Dubai's changing climate |
|  | Water                      | • Managing water supply efficiency including our own operations and supply chain<br>• Helping our customers minimise their water use<br>• Maintaining water quality and managing our wastewater discharges to the natural environment                                      |
|  | Environmental protection   | • Managing our environmental impacts<br>• Using natural resources sustainably and minimizing waste   |
|  | Employees                  | • Recruiting, retaining and developing talent<br>• Ensuring health and safety for employees, contractors and sub-contractors   |
|  | Suppliers                  | • Developing a diverse and sustainable supply chain<br>• Ensuring high standards in our supply chain including respect for the basic human rights of workers and environmental protection  |
|  | Stakeholders and community | • Being a responsible corporate citizen<br>• Engaging our stakeholders and contributing to our communities.  |
|  | Governance and ethics      | • Adopting world-class standards of governance, business ethics, accountability and transparency   |

# OUR 2013 MATERIALITY ASSESSMENT



In 2013, we engaged with our stakeholders to understand their expectations of DEWA with respect to sustainability performance and management. This engagement was a key step in our materiality assessment process, illustrated below, which is the process by which we identified and prioritised social, environmental, economic and market issues. This began with a review of relevant guidelines and standards, peer company reports, government policy and regulation and DEWA's internal information on strategic risks and opportunities to identify a long list of relevant social, economic and environmental issues for DEWA. The second step in the process was to engage with our stakeholders to understand their expectations of DEWA with respect to sustainability performance and management. Finally, we undertook an iterative process of prioritisation and management review to arrive at our final selection of material issues. The results of our 2013 materiality assessment process are illustrated in the materiality matrix below. This shows the relative importance of each issue for DEWA's performance and for our stakeholders.





# OUR FUTURE COMMITMENTS

In 2013, our first year of sustainability reporting, we established a performance baseline for each of our 10 key areas for action. We are committed to improving our sustainability performance and have set out broad future commitments in each of our 10 key areas for action which establish direction on. In some, but not all cases, we have set specific targets. The table below shows the broad future commitments and the KPIs that we will use to track our progress.

|   | Key area for action        | Our future commitment   | KPI   | 2013 performance (baseline) |
|---|----------------------------|---|---|-----------------------------|
|    | Economic development       | To increase our direct and indirect economic contribution to the Dubai economy  | Total capital expenditure   | 3,650 million AED*          |
|   | Market performance         | To maintain world-class standards of quality, reliability, efficiency, availability of electricity and water supply for Dubai | Customer interruptions as measured by SAIFI   | 0.171                       |
|    | Customers                  | To continue to improve our customer satisfaction index  | Customer Satisfaction Rating  | 91.6%                       |
|    | Energy and climate change  | To steadily reduce our carbon emissions intensity   | Tonnes CO2e per MWh generated   | 0.449 tCO2e/ MWh for 2012*  |
|    | Water                      | To improve water efficiency within our production and distribution system   | Unaccounted for water including leakage, unmetered supply and technical losses.                   | 10.4%                       |
|  | Environmental protection   | To minimise our environmental footprint and ensure that our operations satisfy all environmental regulatory controls          | Number of incidents of non-compliance with environmental regulation                               | Zero                        |
|  | Employees                  | To reduce our employee turnover rate and increase the proportion of UAE nationals in our workforce                            | Employee Satisfaction Rating  | 75%                         |
|  | Suppliers                  | To fully integrate green procurement into DEWA's entire supply chain  | Number of strategic, core and basic suppliers that are aware of DEWA's green procurement criteria | Measurement in progress     |
|  | Stakeholders and community | To conduct stakeholder engagement to AA1000 standard  | Feedback rating from stakeholder events participants  | Measurement in progress     |
|  | Governance and ethics      | To fully embed sustainability into our governance structure   | Number of reported breaches of Code of Conduct  | Zero                        |

\*Baseline data for: (a) total capital expenditure; and (b) tonnes CO2e/ MWh generated is provided for 2012.



# ECONOMIC DEVELOPMENT

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**AED 3,488 MILLION**  
OUR CAPITAL EXPENDITURE IN 2013

**9,574 PEOPLE**  
OUR DIRECT EMPLOYMENT

WE ARE PREPARING TO LAUNCH A NEW  
**R&D CENTRE**

## SECTION CONTENTS

- Our principles
- Our management approach
- Prudent financial management and business diversification
- How we distribute the wealth we create
- We invest in fixed assets and innovation
- We actively engage local businesses
- We are a major employer in Dubai
- We promote Emiratisation
- Our future commitments





## OUR PRINCIPLES

Our corporate strategy is designed to closely align with strategic government initiatives, such that we contribute to achieving the UAE's and Dubai's vision and goals for a sustainable economy. Most notably, the UAE Vision 2021 places a high priority on the development of a competitive knowledge economy. This vision includes diversifying the economy away from oil and gas-related GDP growth, improving the business environment, attracting Foreign Direct Investment, investing in innovation and knowledge, and substantially increasing the proportion of Emiratis in the workforce.

DEWA contributes to the Dubai and UAE economies directly and indirectly. We aim to maximise our direct economic contribution through sound management of our core business, our investments and innovation, and through developing our people. Our indirect contribution is a consequence of our procurement, investments and the involvement of local people and businesses in our supply chain. Furthermore, we have a catalytic impact on the Dubai and UAE economies through our provision of electricity and water services - these create an attractive business environment and investment climate.

### DEWA Value Chain



## OUR MANAGEMENT APPROACH

We manage our economic development impact through:

### Prudent financial management and business diversification

- We manage our finances in a prudent way
- We invest in business diversification initiatives to build a resilient business

- We distribute the wealth we create to a range of stakeholders including employees, capital providers, suppliers and the Dubai Government

### How we distribute the wealth we create

### We invest in fixed assets and innovation

- We are engaged in a long-term expansion plan to increase Dubai's generation, transmission and distribution infrastructure
- We constantly drive innovation with our employees and business partners

- We seek to source products and services locally to build capability and capacity in the region

### We actively engage local businesses

### We are a major employer in Dubai

- We employ just under ten thousand people, many of whom have an engineering backgrounds

- We involve Emiratis in our own business and our supply chain

### We promote Emiratisation



# PRUDENT FINANCIAL MANAGEMENT AND BUSINESS DIVERSIFICATION

A key prerequisite for effectively contributing to Dubai's economy is handling our own finances in a beneficial and prudent manner. By being a financially resilient company we can provide that same security to all the households and businesses that depend on our services.

To manage our costs, we have a wide range of strategic cost-reduction initiatives to work more efficiently and increase our productivity. These include the optimisation of operations, re-engineering of business processes and long-term contracting. One important element of managing our revenues is tariff setting. Our tariffs are set by the government at a level which is affordable for our residential and business (commercial and industrial) customers,

whilst ensuring that we cover our costs, support our investments, and provide a reliable income source for our sole shareholder, the Dubai Government.

A cornerstone of our approach to financial resilience is the diversification of our own business. We constantly look for new business opportunities that add to our revenue stream while building on the core strengths of our organisation. We are already currently involved in a number of Joint Ventures. We have also set up a further two other business diversification initiatives: Mai Dubai and RWE Power International Middle East. The former provides bottled water to the Emirate of Dubai and beyond. The latter is a partnership with RWE, one of Europe's most respected utilities, that provides energy and water consultancy services.

## EXAMPLES OF OUR JOINT VENTURE PROJECTS:



### Emirates National Electricity Network

This prestigious project creates a national grid in the UAE, connecting all seven of the emirates. DEWA works closely together with the other electricity and water authorities, including ADWEA, FEWA and SEWA.



### Emirates Central Cooling Corporation (Empower)

A company founded to create environmentally-friendly solutions for District Cooling Services in Dubai.



### Ducab High Voltage Cable System

Ducab is a manufacturer of distribution and transmission cables. This Joint Venture focuses on the production of high voltage cables for bulk transmission in particular.



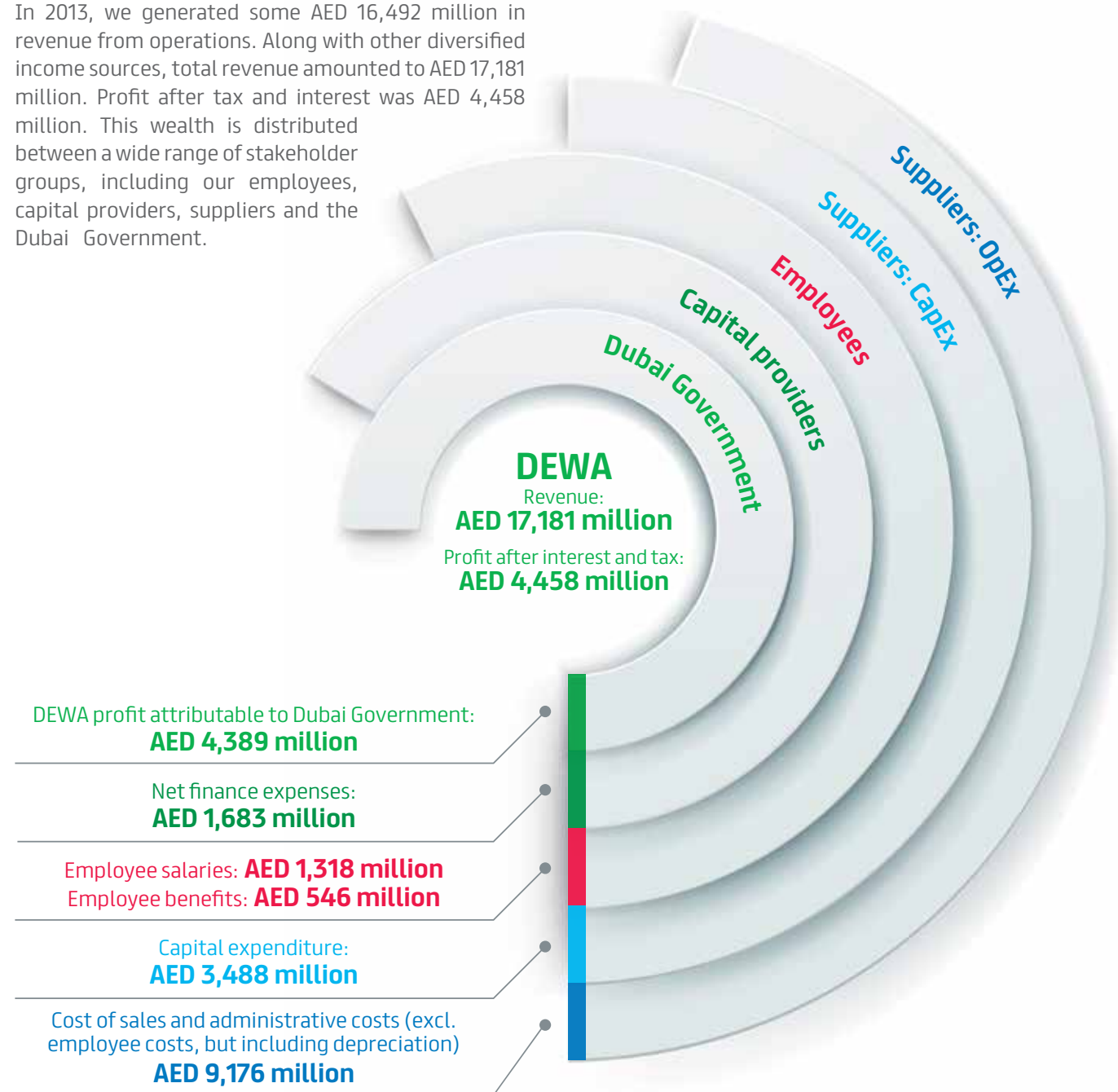
### Dubai Carbon Centre of Excellence

This centre focuses on solutions for greenhouse gas emission reduction. It provides capacity building, advisory and financial services in the region.



# HOW WE DISTRIBUTE THE WEALTH WE CREATE

In 2013, we generated some AED 16,492 million in revenue from operations. Along with other diversified income sources, total revenue amounted to AED 17,181 million. Profit after tax and interest was AED 4,458 million. This wealth is distributed between a wide range of stakeholder groups, including our employees, capital providers, suppliers and the Dubai Government.



Our procurement activities generate a ripple effect through the local economy, contributing to the generation of additional wealth and employment in Dubai and the UAE. Our expenditure on operational procurement (mainly on fuel, maintenance and repairs; including depreciation) amounted to AED 9,176 million

in 2013. Such procurement provides for the profits and wages of our suppliers and business partners, while simultaneously stimulating additional economic activity further down in the supply chain. In 2013, AED 3,488 million was spent on capital expenditure involving a range of industry players locally and from abroad.

## We invest in fixed assets and innovation

To meet the increasing demand for electricity and water in Dubai, we have long-term plans for expanding generation capacity (see Market Performance section). Our plans require substantial capital investment in our fixed assets (power and desalination plants and infrastructure), and as a result create a significant impact on the regional economy. We also invest in our human and intellectual capital through funding for research and development, and we encourage knowledge sharing, technology transfer and foreign direct investment through our partnerships and joint ventures (for example with General Electric, Alstom, Cisco and Mitsubishi).

## We actively engage local businesses

Wherever possible, we strive to involve local economic actors in our operations and supply chain. This helps build capacity locally and fosters economic growth in Dubai and the wider region. In addition to sourcing products and services locally, we have created a wide range of strategic partnerships with companies in Dubai and the rest of the UAE. Some of our important partners in Dubai include Emaar, Nakheel and Tameer, which are all important customers. Engaging with these companies enables the exchange of best practice, knowledge and new technologies.



## We are a major employer in Dubai

In 2013, our employees reached a total of 9,574, which makes us one of Dubai's larger employers. Our company is an important employer particularly of engineers in the region. Our water and electricity generation, transmission and distribution divisions jointly employ over 6,500 people. Engineering is considered a high value-added activity and an important source of innovation. We also employ people in other highly qualified job positions including management, business modelling and finance. Our people possess a wide range of skills, and we are committed to their continuous development (see Employees section).

## We promote Emiratisation in our business and supply chain

Emiratisation is an important government priority in the UAE and we have developed a range of initiatives to foster Emiratisation in our business. In 2013, UAE nationals held 81.8% of our top management and leadership positions, 40.01% of our middle management positions, and 31.04% of our non-supervisory positions within DEWA. To enhance our Emirati skill-set, we support UAE nationals through a number of scholarships for students in electrical and mechanical engineering at high school and university level. These scholarships are complemented by work placement opportunities dedicated specifically to Emiratis.





# OUR FUTURE COMMITMENTS

We will continue playing an active role in promoting Dubai’s economy, and supporting the UAE’s transition to a competitive knowledge economy. To do this we will work closely with our strategic partners, both local and international, to exchange best practice, knowledge and technologies. We will invest in our people and engage closely with our supply chain. We will support our customers by delivering fair pricing and high quality services, to positively contribute to Dubai’s favourable business environment and investment climate.

| Issue              | Commitment  | Target  |
|--------------------|---|---|
| Local sourcing     | We will increase the involvement of local businesses and people in our operations and supply chain. | We will continue to review our sourcing decisions on a regular basis and engage with local businesses to explore areas of mutual benefit. |
| Capital investment | We will continue investing in Dubai’s generation, transmission and distribution infrastructure.     | We will continue implementing our long-term expansion plan.   |
| Innovation         | We will contribute significantly to research and development in the renewable energy sector.        | We will continue the implementation process of our R&D Centre and commit significant resources to this.                                   |





# MARKET PERFORMANCE

COMPLETED THE IMPLEMENTATION  
OF A NEW STATE-OF-THE-ART

## AUTOMATIC NETWORK CONTROL SYSTEM

CAPABLE OF ACHIEVING **99.9%**  
AVAILABILITY OF POWER ON THE GRID

**27 MINUTES** LOST PER  
CUSTOMER (PLANNED AND UNPLANNED)  
IN 2013, EQUIVALENT TO A  
**38% DECREASE** SINCE 2009

CUSTOMER INTERRUPTIONS  
(AS MEASURED BY SAIFI)

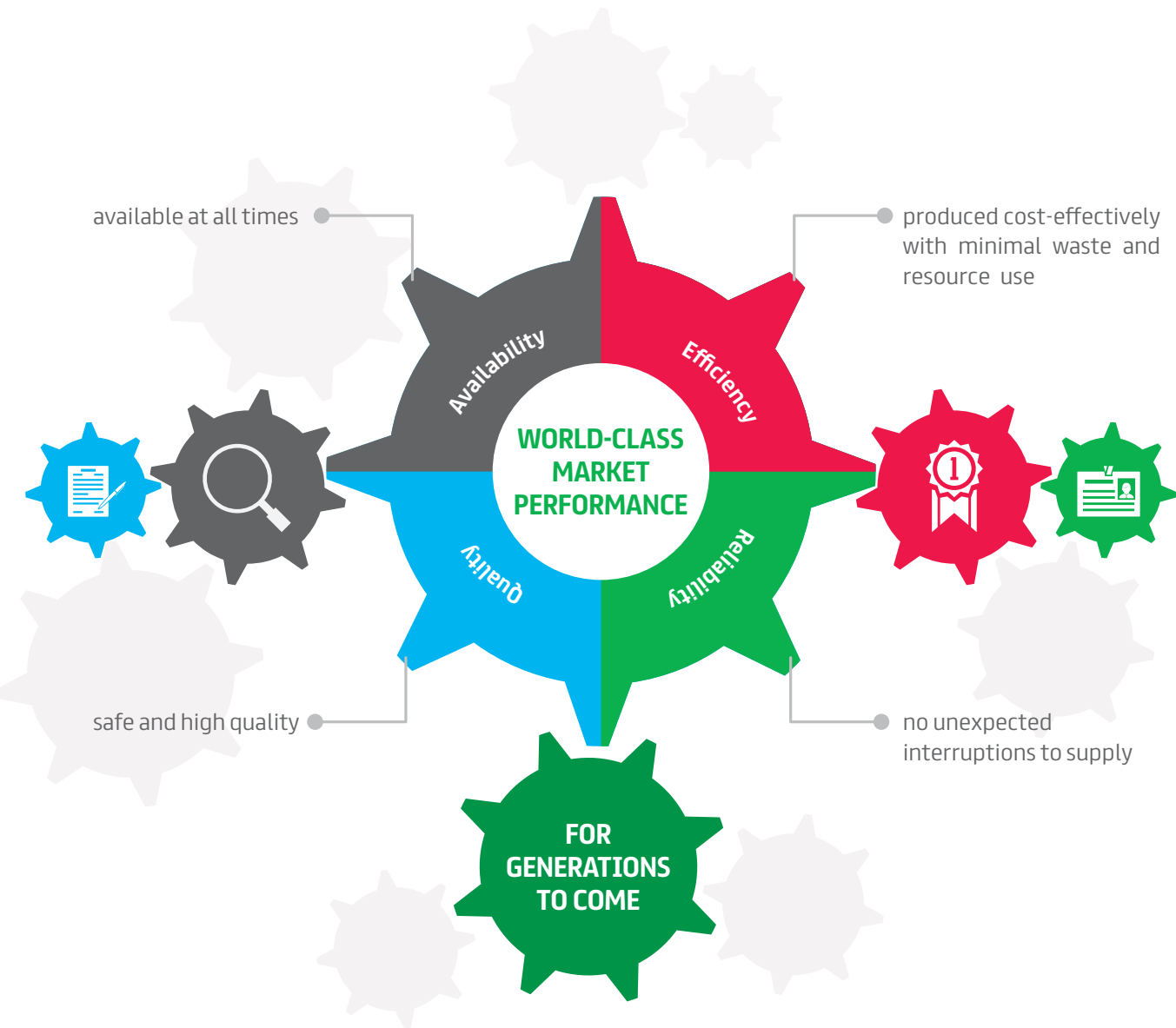
**REDUCED BY 8%**  
YEAR ON YEAR

## SECTION CONTENTS

- Our principles
- Our management approach
- Operational excellence
- Managing out assets
- Investing for the future
- Meeting future demand
- Diversification of energy sources
- Our future commitments

# OUR PRINCIPLES

Our fundamental mission is to supply essential electricity and water to meet Dubai’s growing needs, both now and for generations to come. These are the underlying foundations for economic development. We place the utmost importance on our duty to deliver electricity and water services to the market and our customers, and in doing so we strive for world-class standards of performance.

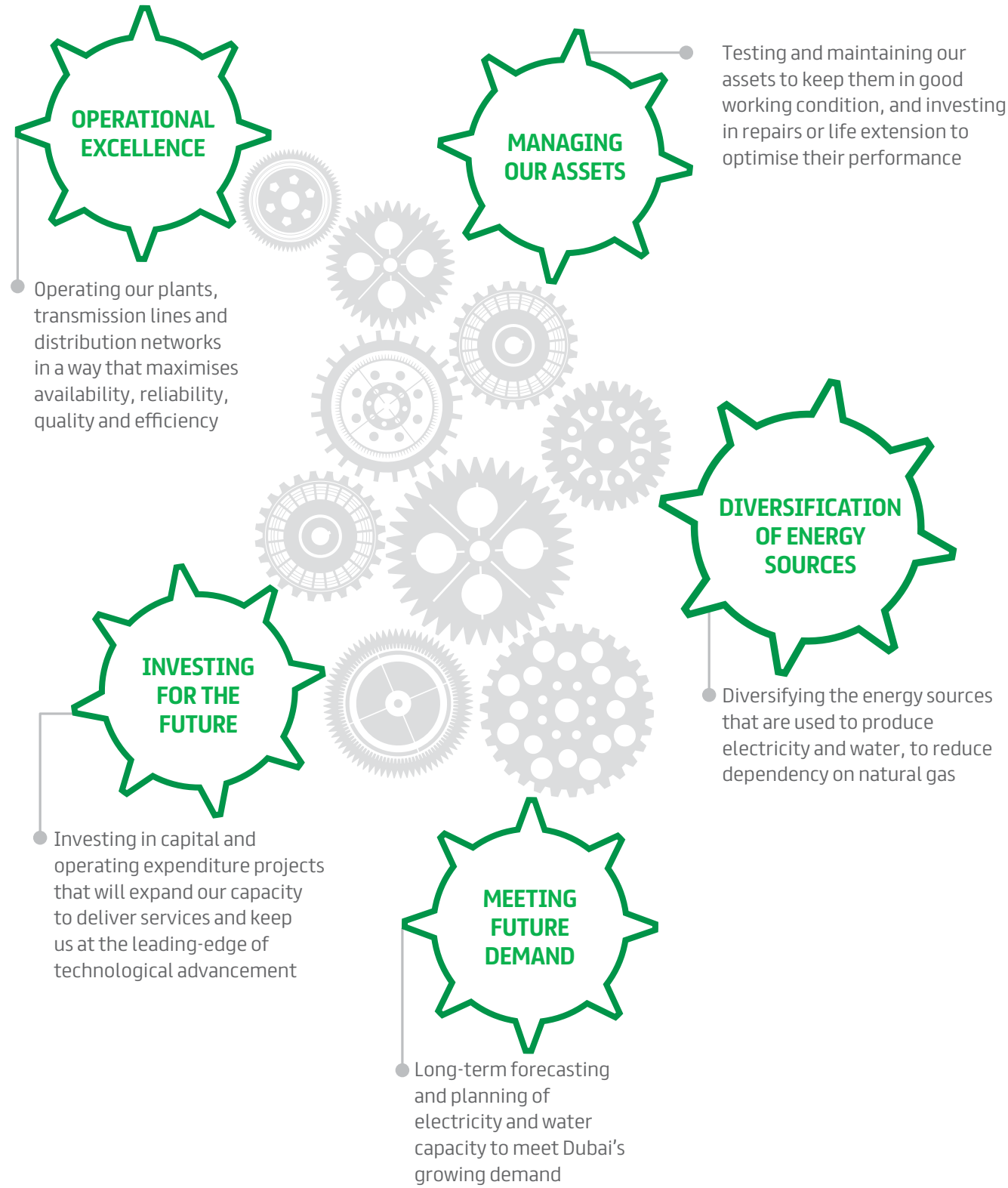


DEWA expects the demand for electricity and water to continue to increase, reflecting the expected growth in both commercial and residential demand for electricity and water as a result of the growth in infrastructure and population of Dubai. Official forecasts estimate that electricity demand will grow at between 5% and 6% per

annum over the next 10 years . Dubai’s recent EXPO 2020 win will further boost demand in the run-up to 2020. We are working to respond to the rising trends in demand by planning our infrastructure and our business strategy carefully for the short and long-term.

# OUR MANAGEMENT APPROACH

We manage our market performance through our work in five main areas:





# OPERATIONAL EXCELLENCE

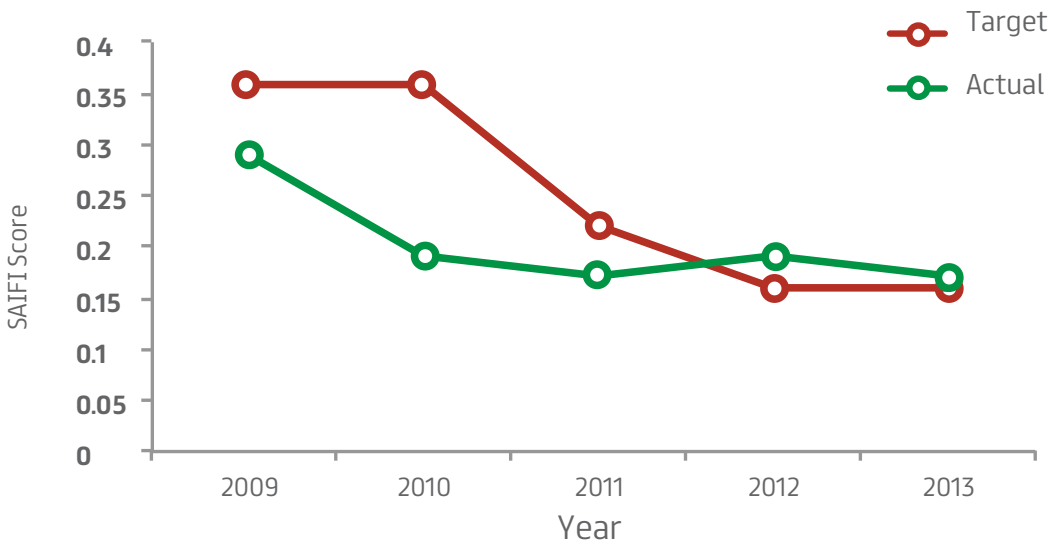
Excellence is embedded in everything we do. We continue to be leaders in system availability and reliability by upholding high standards and deploying leading-edge technologies. Our Generation division strives for continuous improvement in gross heat rate and efficiency by optimising the operation of our power and water stations. In 2013, with respect to 2006, we have achieved a 26.9% improvement in efficiency, primarily through optimising the design and utilisation of power and water co-generation plants. Transmission line availability is typically above 99.9% reflecting world-class standards of performance.

Our operational management approaches adhere to our Integrated Management System (IMS). Our IMS complies

with internationally recognised standards for health, safety, environment and quality (ISO 9001, ISO 14001 and OHSAS 18001) and provides guidance to all business divisions about how activities should be executed to uphold DEWA's expectations for operational excellence. To measure our performance in supplying power, we look at three key indicators: System Average Interruption Frequency Index (SAIFI), Customer Minutes Lost (CML) and Availability Factor (AF).

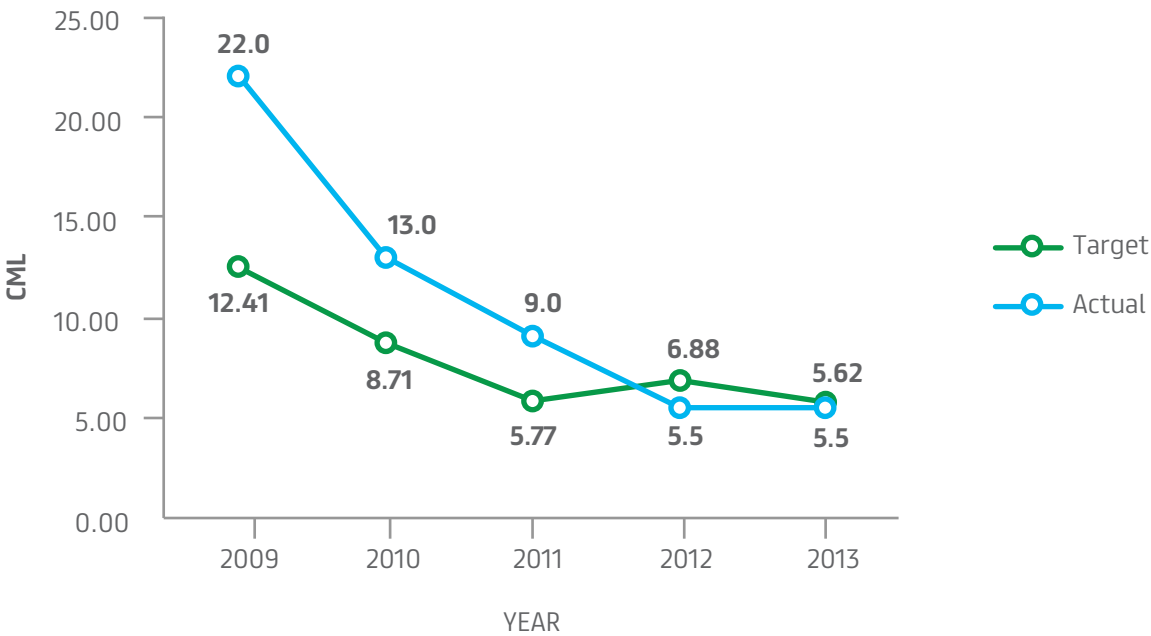
The SAIFI measures the average number of interruptions experienced by each customer in one year. In 2013, although SAIFI was slightly behind target (0.17 versus target of 0.16), it continues a downward trend since 2009.

System Average Interruption Frequency Index (SAIFI): Target and Actual



CML (Customer Minutes Lost) measures our ability to restore power during planned outages for maintenance and unplanned outages (in emergencies). This year, our CML from unplanned outages was slightly behind our 2013 target (5.62 versus a target of 5.50) although this remained significantly better than the 16.4 minutes recorded by counterparts in Europe and the US. CML from planned maintenance was ahead of target at 21.41 (versus a target of 24.00). Since 2009, we have achieved a 55% decrease in CML for unplanned outages and a 32% decrease in CML for planned outages.

CML unplanned: Target and Actual



The availability factor (AF) is a measure of the percentage of time that our plants are available to produce power. Power availability is especially important during the summer months, when more electricity is needed for air conditioning. Our availability factor was ahead of target for the summer period, but slightly behind target for the year overall.

Availability Factor (annual and summer): Target and Actual

|                              |        | 2009   | 2010   | 2011   | 2012   | 2013   |
|------------------------------|--------|--------|--------|--------|--------|--------|
| Availability factor (annual) | Target | 89.00% | 89.00% | 89.00% | 89.00% | 87.00% |
|                              | Actual | 90.14% | 87.49% | 88.76% | 86.68% | 85.95% |
| Availability factor (summer) | Target | 98.00% | 98.00% | 98.00% | 98.00% | 97.00% |
|                              | Actual | 98.75% | 98.70% | 98.15% | 95.63% | 98.14% |

# MANAGING OUR ASSETS

Our Generation, Transmission Power and Distribution Power divisions have management plans and processes in place to ensure proper asset management, including equipment monitoring and refurbishment. On average, DEWA's generation plants are designed to have an average useful life of approximately 30 years, after which the plant will need to be either upgraded or replaced. We also implement remaining life assessments and adequate lifetime extension (LTE) measures in our plants in order to achieve a plant life of 40 to 50 years.



We carefully plan our maintenance schedule to reduce planned outages, aiming to achieve no more than 24 planned CML during the year. We do this using our optimum outage planning tool, a management tool that coordinates planned and reactive maintenance activities in parallel during single periods of system downtime, whilst also maximising efficiency and minimising fuel costs. Whenever we need to turn off power or water to conduct maintenance, we notify affected customers at least one week in advance.

# INVESTING FOR THE FUTURE

Our 2013 capital expenditure was AED 3,488 million. We have a project approval and investment appraisal process in place to assess all requests for investment. During this process, our expert teams consider the technical feasibility and risk profile of the investment. Their assessment is passed to management for approval, who then allocate investment budget accordingly. We plan to review our investment appraisal process with the aim of incorporating sustainability criteria into our investment decisions.

At DEWA, we understand that technology is fast-moving and that we cannot afford to be complacent. We are committed to investing in our assets, research and people so that we can continue to deliver electricity and water services at the level expected by our stakeholders. That's why, for 2014, we are allocating AED 5 million to be spent on research and development that aims to further improve the reliability of our electricity and water supply. In addition, a further budget is to be allocated specifically for projects that focus on sustainability, to ensure that we continue to provide our services in a sustainable way for generations to come.





# MEETING FUTURE DEMAND

Whilst ensuring that Dubai has a reliable, available, high quality and efficient water and electricity supply today is a priority for us, we are also committed to safeguarding long-term energy and water security. Our Power and Water Planning division gathers and analyses demand growth data, anticipating demand growth and producing short and long-term demand forecasts. They maintain a Master Plan that combines demand analysis with fuel forecasts and planned additions or upgrades to our generation capacity and distribution networks. They use system modelling techniques to provide our business with intelligence that allows us to develop our strategic plan for the future.

Based on current plans, our forecasts indicate that we have adequate electricity generation and water production capacity to meet forecasted demand until 2030 and we will continue to expand capacity beyond. For the immediate next few years up to 2020, our focus remains on extending our transmission and distribution network. Looking beyond 2020, our focus will move towards expanding generation capacity once again. In line with D.I.E.S 2030, the key elements of our strategic approach are diversifying energy sources and demand side management.

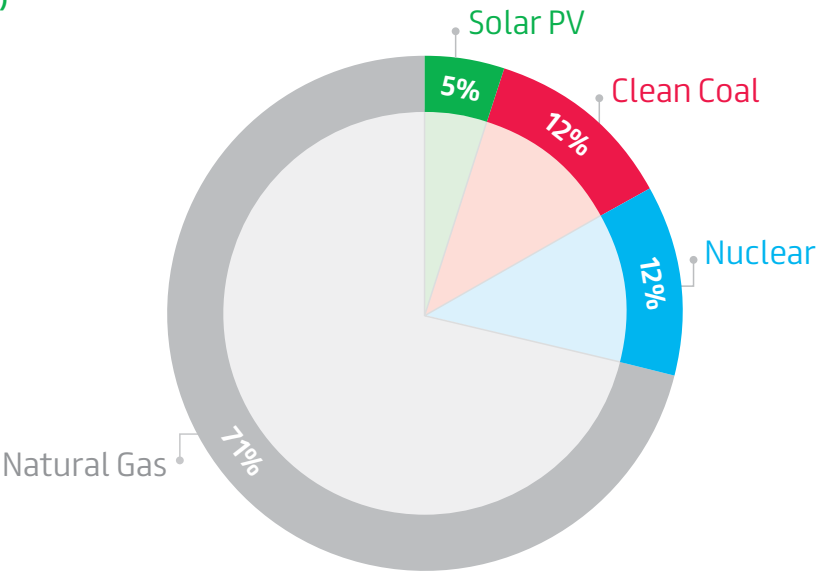
Peak Power Demand and Planned Capacity Additions (2013-2030 Likely Scenario)



# DIVERSIFICATION OF ENERGY SOURCES

In 2013, we produced the majority of our electricity and water using natural gas. We recognise that high-dependence on natural gas makes us vulnerable to shortages and future commodity price fluctuations. Therefore, part of our long-term energy strategy is to diversify our energy sources.

Planned Energy Mix (2030)



### Renewables

In the section on Energy and Climate Change we detail our plans for expanding our renewable energy generation capacity. This includes the Solar Park and potential for distributed generation via rooftop solar panels. In line with the D.I.E.S 2030 strategy, diversifying our electricity generation into renewable energy sources is a key part of our strategy.

### Clean coal

Technological advancements have brought about the possibility of 'clean coal'. Clean coal is being planned as an alternative fossil fuel source and we have plans in place to construct a 2,400 MW clean coal facility at Hassyan, in phases, by 2030. We are working with our independent power producer (IPP) partners to ensure that Hassyan follows European Union standards for clean coal, which are the most stringent standards worldwide in terms of emission levels.

### Nuclear

The D.I.E.S target is to produce 12% of power from nuclear energy by 2030. To meet our nuclear target, DEWA is currently investigating possibilities for purchasing

electricity generated from the Barakah nuclear plant in Abu Dhabi.

### Regional grid connectivity

A significant development in the UAE electricity market was the establishment of the Emirates National Grid (ENG), which interconnects the electricity transmission grids of the four Authorities:

- ADWEA: Abu Dhabi Water and Electricity Authority
- DEWA: Dubai Electricity and Water Authority
- FEWA: Federal Electricity and Water Authority
- SEWA : Sharjah Electricity and Water Authority

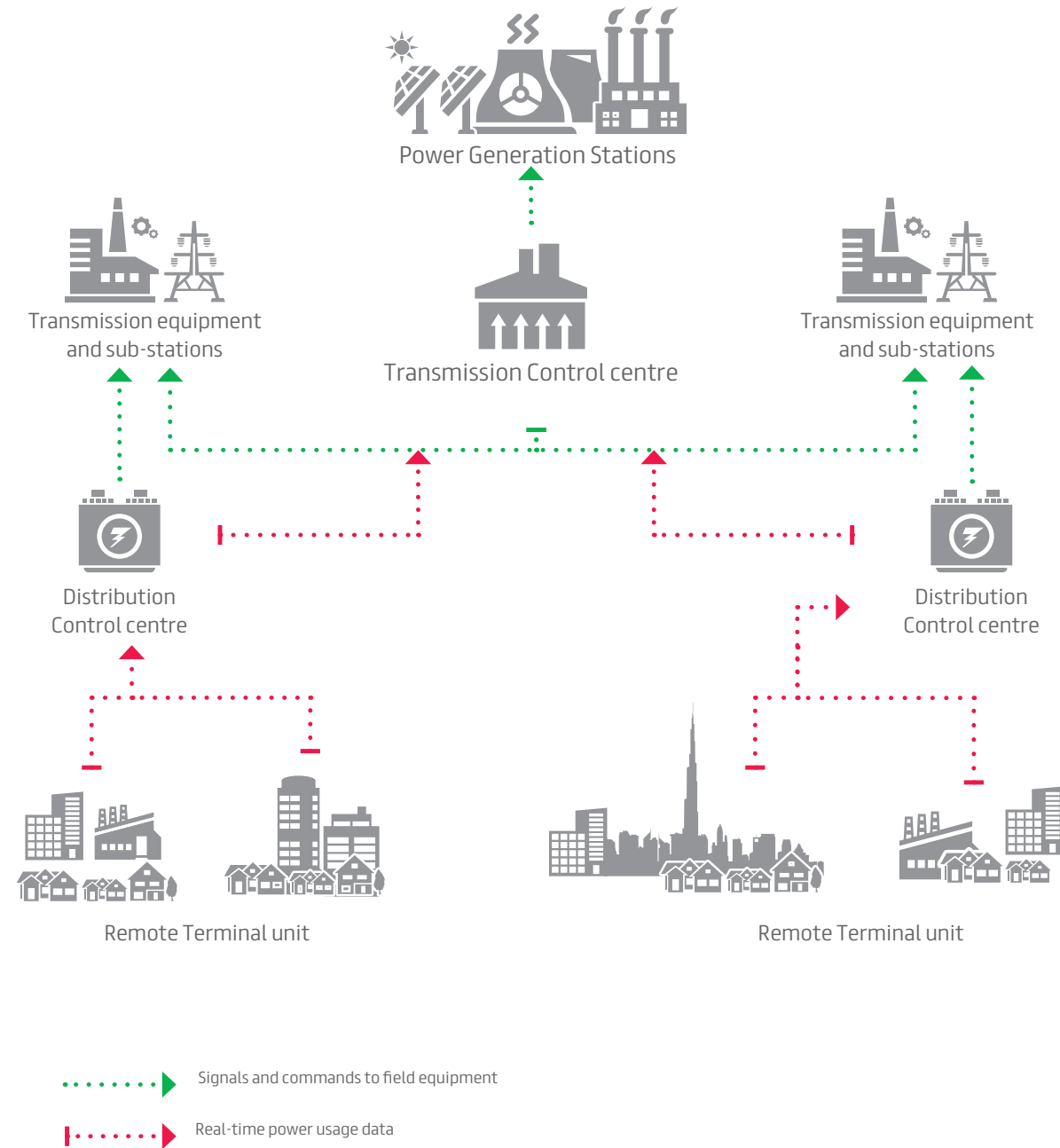
The ENG was established to enable one Authority to purchase electricity from another, with the objective of ensuring a constant and stable electricity supply throughout the UAE by allowing each of the Authorities to share one another's electricity reserves. The ENG forms part of a Gulf-wide regional grid system, linking the national grids of the Gulf Cooperation Council (GCC). National and regional electricity trading are therefore possibilities which DEWA continues to explore.

## SCADA SPECTRUM SYSTEM

DEWA's Supervisory Control and Data Acquisition (SCADA) system, aims to continually achieve system availability of 99.9% and no more than 2 system failures per quarter. SCADA is a sophisticated and centralised monitoring system which ensures that a reliable and continuous supply of electricity is provided to consumers at the correct frequency and voltage. The state-of-the-art

automated power distribution system has achieved better remote monitoring and control of the power system and more efficient detection and monitoring of system tripping. This has ultimately led to fewer outages, a reduction in the electrical supply restoration time and optimisation of the workload on the electric load dispatchers.

### Power Generation Stations



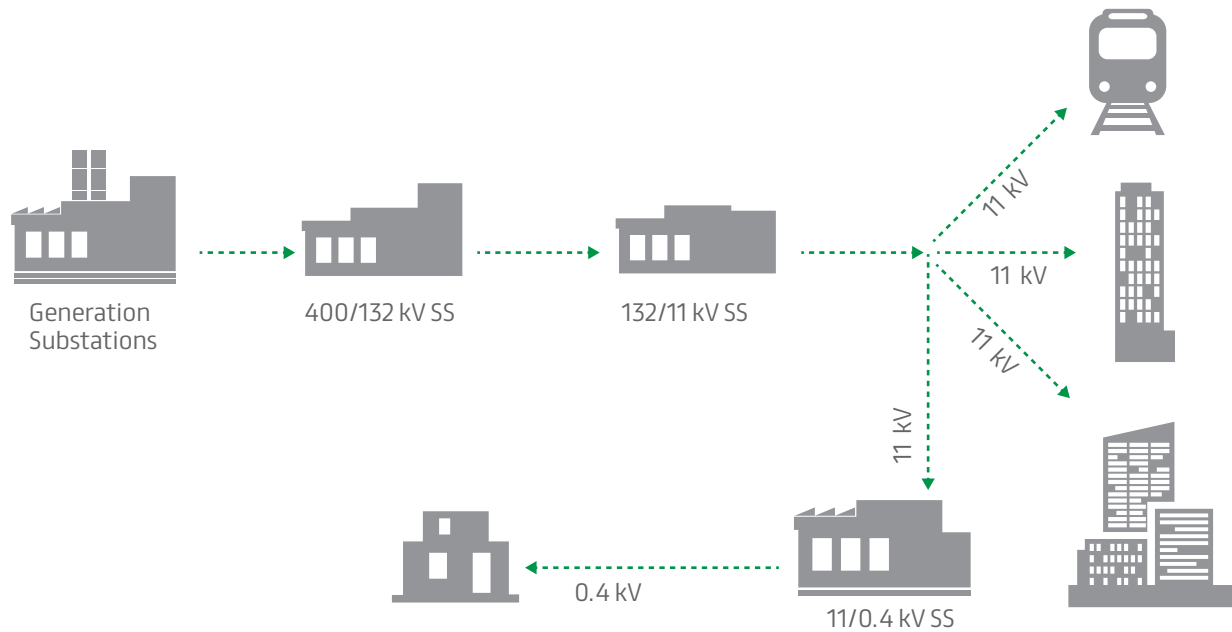
## OPTIMISING RING DESIGN FACTORS FOR THE DISTRIBUTION NETWORK

**"IDEA OF THE YEAR" AWARD FROM IDEAS ARABIA 2014, "BEST SUGGESTION" AWARD FROM BEST IDEA 2014, GERMANY**

From 2009 to 2013, DEWA conducted a project to further improve the utilization of our network assets by improving our Ring Design Factors. This project achieved a 27% improvement in network utilization and an associated AED 174 Million in cost-savings, in addition to reinforcing network resilience to fluctuating loads.

By customising the Ring Design Factors on our medium voltage network to suit the nature of the loads in Dubai, our network design engineers enabled the network to adapt more effectively to fluctuations in the demand for electricity.

### DEWA Electricity Distribution Network



## OUR FUTURE COMMITMENTS

We are committed to continuing our strong market performance by providing high standards of power and water availability, reliability, quality and efficiency.



# CUSTOMERS

94.3% OF OUR  
CUSTOMERS WERE  
SATISFIED WITH OUR  
SERVICE IN 2013

IN 2013, WE SERVED  
652,200 ELECTRICITY  
CUSTOMERS AND  
580,678 WATER  
CUSTOMERS

1<sup>ST</sup> IN MENA,  
AND 4<sup>TH</sup> INTERNATIONALLY  
WORLD BANK'S RANKING OF THE UAE  
(REPRESENTED BY DEWA) FOR 'EASE OF  
ACCESS' TO ELECTRICITY IN THE  
WORLD BANK REPORT 2014

## SECTION CONTENTS

- Our principles
- Our management approach
- Excellence in customer service
- SMART technology for more effective customer service
- Access to water and electricity services
- Our future commitments



## OUR PRINCIPLES

At DEWA, our customers are at the centre of our business. We have incorporated our customer-focused principles into our overall mission, vision, core values and business strategy. Our vision for customer service is as follows: "We anticipate our customers' needs and we seek to exceed their expectations through our commitment to continuous improvement in products and services quality. We constantly focus on customer satisfaction."





# OUR MANAGEMENT APPROACH

Based on ongoing engagement with our customers, we define our responsibilities for delivering customer satisfaction in three key areas under the overall theme of excellence in customer service.

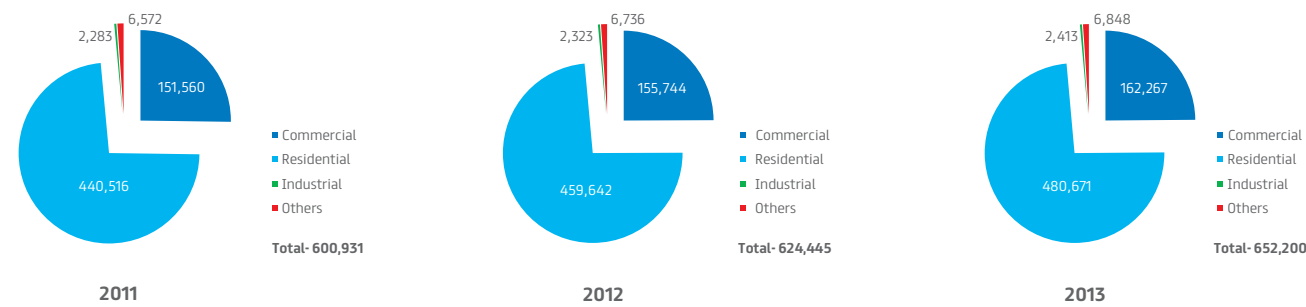
|  |   |
|--|---|
| Excellence customer service                          | <ul style="list-style-type: none"><li>•Listening and responding to customer feedback , needs and expectations.</li><li>•Improving the quality and speed of our customer interactions</li></ul>              |
| SMART technology for more effective customer service | <ul style="list-style-type: none"><li>•Providing our customers with accurate, comparable and timely information through e-services and smart services</li><li>•Investment in intelligent metering</li></ul> |
| Access to electricity and water services             | <ul style="list-style-type: none"><li>•Ensuring easier connections</li><li>•Providing access to services for customers with language barriers and physical challenges</li></ul>                             |

## Excellence in customer service

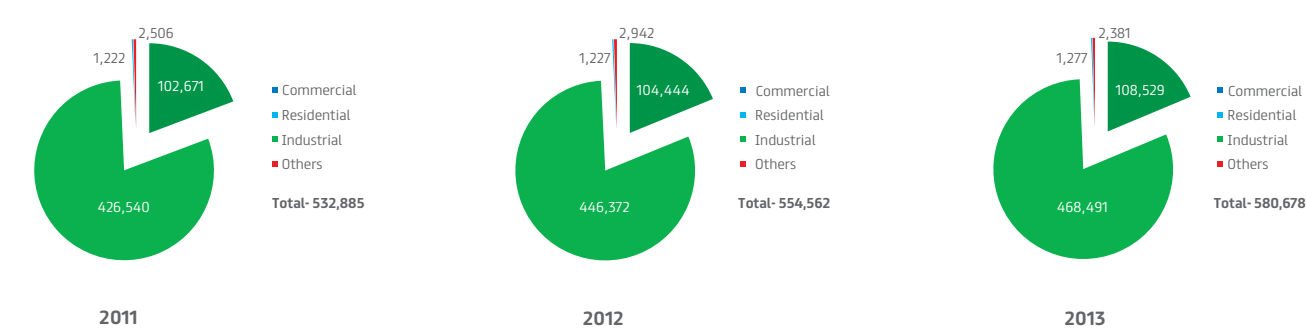
### Our customers

As Dubai’s population and economy continues to grow, so does DEWA’s customer base. At DEWA, we have identified four main customer groups: commercial, residential, industrial and others (including government).

### Electricity Customers



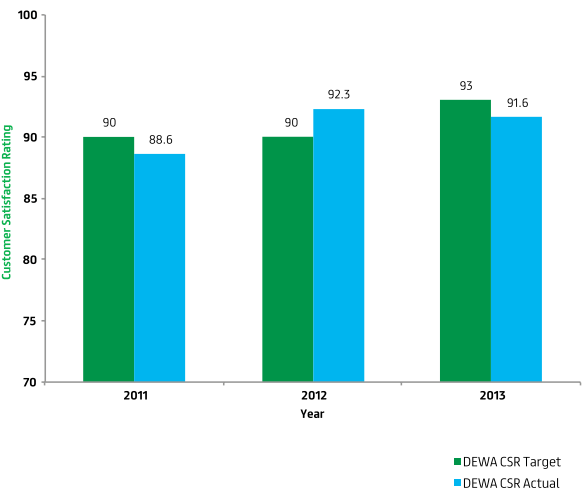
### Water Customers



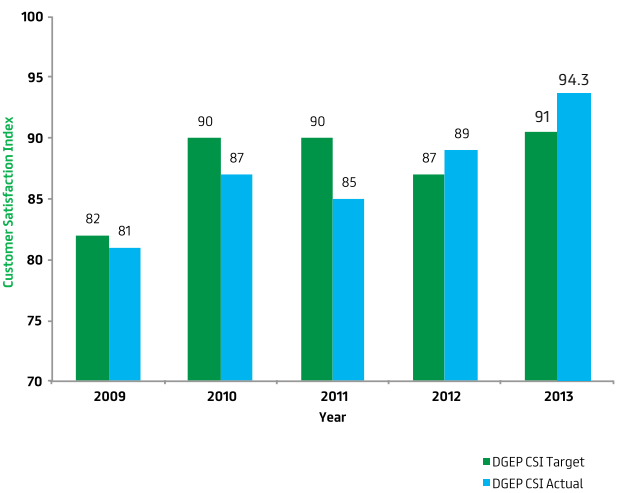
### Customer satisfaction

Since 2013 we have been undertaking annual customer satisfaction surveys to understand how we can improve our customer service. We also carry out shopper studies and mystery customer calls and visits to our customer service centres. We combine the results of these surveys and activities into an overall DEWA Customer Satisfaction Index. We also gain feedback from the annual Dubai Government Excellence Program (DGEP) customer studies which results in a ‘Customer Satisfaction Index’ for DEWA. The results for both DEWA and DGEP customer surveys are summarised below.

### DEWA Customer Satisfaction Index



### DGEP CSI for DEWA



We are happy to report that in 2013, our Customer Satisfaction Rating was 91.6%, only slightly below our target of 93%. We are pleased to announce that for the year 2013, we achieved 94.3% on the Dubai Government Excellence Program (DGEP) Customer Satisfaction Index (CSI) results, where DEWA ranked 1st among Dubai Government entities in the large category, exceeding our target of 91%. In 2014 we will continue to engage our customers to continually improve our services for Dubai’s residents and our other customers. We have also received the ISO-10002 certification for quality customer service.

Our customer satisfaction surveys are not just about ratings. We also gather feedback from customers on how we can improve. In 2013, three areas stood out from our customer engagement process, including:

- **Responsiveness (General Impression):** Our services could be markedly improved through faster turnaround times in responding to information requests, customer complaints and queries on our eServices offerings.
- **Service offering transparency (Services & Services Offered):** Ratings on clear and readily-accessible information about our service offerings were somewhat lower than our overall satisfaction levels. Providing clearer information to our customers through DEWA’s multiple communication channels will be a priority area of improvement for us in 2014.
- **Information and transparency (Transparency):** The importance of providing accurate information and being transparent in our communications was also highlighted. We are continuously seeking to improve in this area.

‘Hadhreen’ At Your Service’ is an overarching 360° marketing communication theme and campaign that we strategically developed and implemented to promote DEWA’s products and services/eServices, with keen focus on sustaining stakeholder satisfaction and securing environmental well-being. Hadhreen, derived from the Arabic language, reflects our Emirati heritage of hospitality, and being always at your service with utmost care and dedication. At DEWA, we know that your time

is precious. This is why we ensure that all our services make your life comfortable and easy, so that you can enjoy it with total peace of mind. Rest assured, we are there when you need us, with Hadhreen - At Your Service. The following are the list of services we provide. By no means exhaustive, they offer you compelling reasons to count on us. Our service was recently nominated for the International World Summit on Information Society (WSIS) Project Prizes 2014.

**E-services**

The gateway through the dewa portal, <https://e-services.dewa.gov.ae> for customers and stakeholder to enjoy a variety of general, customer and business-related services.

**Mobile Services**

With our smart applications available customers can efficiently transact; do business with DEWA.

**Multiple Ways to pay**

To provide added convenience to customers, multiple methods of payment (around 17 channels) were developed.

**GreenBill**

For a fast, secure and eco-friendly monthly consumption bill sent to the customer’s registered email.

**15 Customer Service Centres**

To facilitate customer convenience our centres are available and spread all over Dubai.

**24/7 Customer Care Centre**

Wherein our customers can contact us with their queries about DEWA’s products and services.

**E-suggest**

It’s a unified, decentralised electronic channel and system for DEWA to efficiently handle and process all suggestions received from customers.

**E-complain**

In pursuit of organisation excellence; addressing customer concerns is paramount to DEWA.

## ELECTRICITY AND WATER TARIFFS

DEWA acknowledges that tariff structure and rate increases are important to customers. We will strive to provide clear and transparent information about tariffs for electricity and water to all of our customer groups. Customers can quickly and efficiently calculate their bills based on usage amounts on the DEWA Tariff Calculator, available at <http://www.dewa.gov.ae/tariff/newtariff.aspx>.

## SMART TECHNOLOGY FOR MORE EFFECTIVE CUSTOMER SERVICE

“

“DEWA has made significant progress in its efforts to transform from e-Government to Smart Government, by adopting the latest technologies that have contributed to enhancing service efficiencies and achieve customer satisfaction.

”

**His Excellency Saeed Mohammed Al Tayer**  
Managing Director and Chief Executive Officer, DEWA

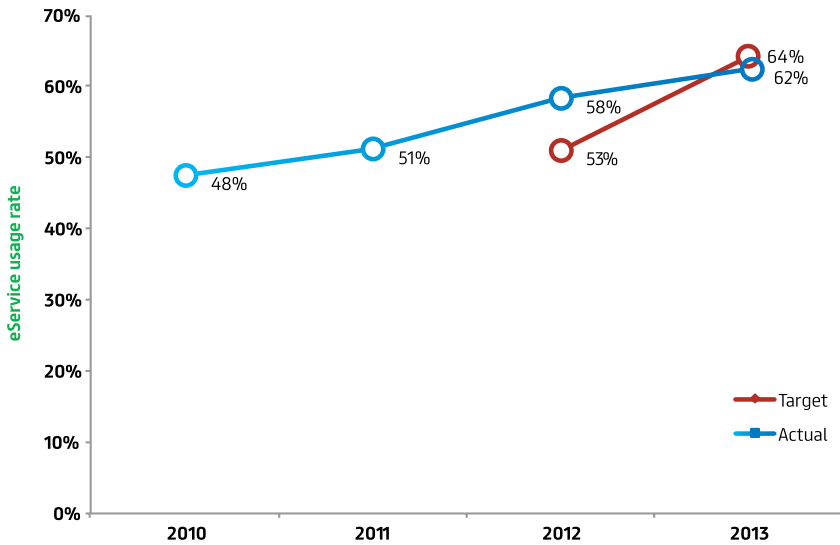
As part of the Smart City initiative launched by **His Highness Sheikh Mohammed bin Rashid Al Maktoum**, Vice President and Prime Minister of the UAE and Ruler of Dubai in 2014, we are launching three initiatives that will help us build a smart city.

### Rolling out eServices for our customers

At DEWA, we continue to enhance customer satisfaction through the adoption of e-services for bill payments, setting up of customer accounts and customer feedback. Launched in 2009, our eServices initiative includes a fully integrated website, as well as smartphone and multiple platforms.

In 2013, approximately 62.4% (by the 3rd quarter of the year) of all payments were made online; this number is up from 48% in 2010. Our promotion of e-services is aligned with e-Government and Dubai SMART Government initiatives designed to increase the efficiency of customer services via internet-based solutions.

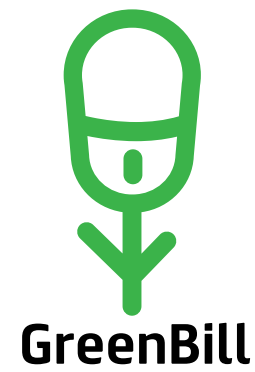
eServices adoption (target versus actual)





## GREENBILL

Green Bill is an electronic version of the paper bill. All customers having registered with DEWA receive a Green Bill email, immediately upon invoicing. The benefits of the Green Bill initiative include:



- 1 Protecting the environment and reducing CO2 emissions
- 2 Helping DEWA achieve a vision to be a sustainable world class utility
- 3 Enhancing shifting to eServices
- 4 Increasing customer satisfaction
- 5 Cost-savings to customers and DEWA
- 6 Increasing effectiveness of collection

In 2013, our Green Bill initiative saved approximately 1.9 million papers, equivalent to AED 1.7 million. For 2014 and 2015, our Green Bill initiative is expected to save on average AED 11.3 million and AED 25.5 million respectively.

DEWA's suite of eService offerings has helped the UAE's rankings in the World Bank's 'Doing Business Survey'. In 2013, the World Bank ranked the UAE (represented by DEWA) as 1st in MENA and 7th internationally for ease of access to electricity, and in 2014 the UAE (represented by DEWA) was ranked 1st in MENA and 4th internationally for ease of access to electricity.

In addition, the rollout of our eServices for DEWA customers has won numerous awards including:

- 2013: GCC Middle East Government and eServices Excellence Awards for a) Best Government Portal and b) Best Application for Smart Device
- 2012: Dubai eGovernment eService Quality Evaluation report for 2011/2012 in the category of Government bodies offering less than 50 eServices (Fifth consecutive year for DEWA).
- 2012: SAP Quality Awards in the MENA region (3rd Europe, Middle East and Africa region).
- 2010: Arab ACN Technology Award for "Best IT department of the Year (Middle East)".
- 2010: GCC Middle East Government and eServices Excellence Award for the ePayment Excellence Award.



## Intelligent Metering System for accurate billing and information

"The first step in building a Smart City begins with smart networks for water, energy, and telecommunications, which form the backbone of future cities."

**His Excellency Saeed Mohammed Al Tayer**  
Managing Director and Chief Executive Officer, DEWA

We understand that it is essential for our customers to have accurate and timely information of their energy and water use (Our commercial and industrial customers use this data for billing and planning purposes). To address this, we have invested in implementing a Dubai-wide smart meter programme. We estimate the programme will take 5 years to complete, by replacing meters with smart meters in residential, commercial and industrial sectors.

The smart metering system will automatically send readings and will maintain consumption records in real time. The new system will help assist with benchmarking but it will enable our customers to reduce both their environment footprint and monthly bills. The smart meter programme support DEWA's vision to become a sustainable world-class utility and is integral to our commitment to providing our customers with accurate and timely information.



"We work continuously to adopt best technological solutions that contribute to enhancing operational efficiency, enhance the quality of services we offer to our customers, and guarantee the highest environmental standards."

**His Excellency Saeed Mohammed Al Tayer**  
Managing Director and Chief Executive Officer, DEWA



# ACCESS TO ELECTRICITY AND WATER SERVICES

As the sole power and water utility for the emirate of Dubai, we strive to ensure that all of Dubai’s residents, businesses and organisations have access to water and power. Given this mandate, we see the provision of access to electricity and water for all of Dubai’s residents as one of our primary goals.

## ONE WINDOW APPLICATION SYSTEM

In 2012, DEWA launched an enhanced eService application called One Window to provide customers with a one-step application process to apply for new electricity connections for new developments and projects. Previously, the process required multiple steps, application forms and approvals, leading to significant timing delays for connections to be completed. By introducing the One Window system, only one online application needs to be submitted by customers. Additionally, customers are able to track the status of their application and the project’s status through One Window.

## PROVIDING ACCESS TO CUSTOMERS WITH LANGUAGE BARRIERS AND PHYSICAL CHALLENGES

We have implemented a range of processes at our customer service centres to increase the accessibility to our products and services. This includes customers who may have difficulty accessing DEWA’s support services due to physical impairments or language barriers.

For our visually-impaired customers, we have implemented Braille versions of the Customer Guide booklet created in coordination with the Emirates Association for the Blind. For our hearing-impaired customers, we have staff proficient in sign language at our Customer Service Centres, to aid them with all their requirements.

For elderly customers, we are participating in the Community Development Authority’s “Thukhr” Card programme, Elder Emirati discount programme (Above age 60) and Sanad for customers with special needs. Card-holders have access to wheelchair assistance at designated counters where they can enjoy DEWA services. To meet the needs of customers with different cultural backgrounds, we print our communication material in Arabic and English. In addition to this, we recruit employees who are able to deliver the services in different languages such as Farsi, Urdu, Chinese, and French and many more.



# OUR FUTURE COMMITMENTS

For 2014, we are committed to focusing on improving information access and transparency for our customers. We will continue to implement the smart metering programme and eServices which will contribute significantly toward the goal. In addition, we will make the necessary plans and investments so that the residents of Dubai have access to their electricity and water needs, whilst ensuring that our services are provided in an efficient, safe and sustainable manner.

| Issue                     | Commitment  |
|---------------------------|---|
| Customer satisfaction     | Ensure customers remain highly satisfied with our service.    |
| eServices /SMART Services | Increase the number of customers that pay their bills online. |





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## ENERGY AND CLIMATE CHANGE

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### 5.3 MILLION TONNES OF CO2 SAVINGS

FROM EFFICIENCY IMPROVEMENTS AND REDUCED AUXILIARY POWER CONSUMPTION IN 2013 WITH RESPECT TO 2006

### 1% RENEWABLES

GENERATION CAPACITY WILL BE ACHIEVED IN 2020 TOWARDS 5% 2030 TARGET

### 3.5% TRANSMISSION AND DISTRIBUTION LOSSES

COMPARED WITH 6-7% AVERAGE IN THE EU AND US

### SECTION CONTENTS

- Policy and economic market conditions
- Our principles
- Our management approach
- Supply side energy efficiency
- Low carbon operations
- Investing in renewables
- Promoting energy and water efficiency
- Our future commitments





# POLICY AND ECONOMIC MARKET CONDITIONS

“

We recognise that preserving our energy resources will be one of the greatest challenges in our drive towards sustainable development. This, however, will not materialise unless the different facets of our society adopt energy conservation principles in their core values. The future generations will be the chief beneficiary of our achievement and the best judge of what we accomplish in this field.

”

**His Highness Sheikh Mohammed bin Rashid Al Maktoum,**  
Vice President and Prime Minister of the United Arab Emirates and Ruler of Dubai.

The issue of climate change has risen to the top of the UAE political and business agenda as the urgency and global scale of the problem becomes increasingly evident. In the UAE, the fragile nature of our natural resources means that we are particularly vulnerable to the impacts of climate change. Key risks for the UAE identified by the Intergovernmental Panel on Climate Change (IPCC) include rising sea levels, adverse fluctuations in the hydrological cycle, and changes in the level of rainfall. These events could significantly impact DEWA’s coastal power and water generation plants as well as place an increasing importance on desalinated water resources.

In response, the UAE government is committed to confronting climate change through innovative and coordinated action aimed at minimising the risks to its natural environment and economic activity. Several recent UAE and Dubai policies include objectives focused on mitigation of climate change impacts. As Dubai’s principal provider of power and water, we recognise that we have an integral role in helping to achieve these policy objectives by reducing the carbon intensity of electricity and water production and enabling customers to reduce consumption and ultimately save costs.

| UAE Vision 2021   | Dubai Integrated Energy Strategy 2030   | Green Economy For Sustainable Development Initiative  |
|---|---|---|
| The UAE Vision 2021 includes a specific focus on mitigating the effects of climate change in order to safeguard the UAE’s environment for current and future generations. The UAE’s National Agenda which supports the Vision aims to achieve 24% of the national energy mix from clean sources such as renewables and nuclear. | The vision of the Dubai Integrated Energy Strategy is for Dubai to become a role model to the world in energy security and efficiency, aiming to reduce energy demand by 30% and diversify the energy mix with 71% from natural gas, 12% from nuclear, 12% from clean coal, and 5% from solar energy. | In 2012, His Highness Sheikh Mohammed bin Rashid Al Maktoum, Prime Minister and Vice-President of the UAE and Ruler of Dubai, announced the UAE’s Green Economy For Sustainable Development initiative, which puts greenhouse gas mitigation at its core through a focus on energy decarbonisation. |





# OUR PRINCIPLES

We believe that the challenges posed by climate change demand coordinated and decisive action. Our aim is to reduce our climate impact while maintaining secure, reliable and affordable supplies of energy and water. We aim to continuously reduce the carbon intensity of electricity and water production in the most cost-effective manner possible while ensuring that our approach delivers wider economic benefits to Dubai.



# OUR MANAGEMENT APPROACH

## Measuring our carbon footprint

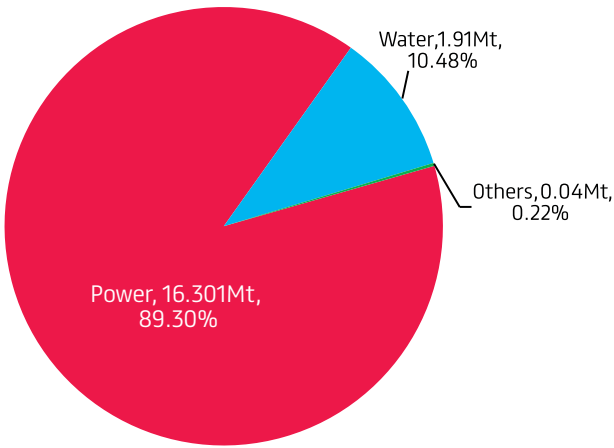
The first step towards managing our climate impact has been to establish a system to measure our global carbon footprint. With the support of Dubai Carbon Centre of Excellence, DEWA is currently developing a CO2 Emission Reduction Programme to set an Emission Reduction Strategy with emission reduction targets in alignment with the Dubai Integrated Energy Strategy 2030, global best practices and DEWA's emission reduction potential. Results from this programme have been significant in the development of this chapter. We can now report that in FY2012 our total carbon emissions, in million metric tonnes of CO2 equivalent (MtCO2e), were 18.26 MtCO2e which has been verified as per ISO-14064 standard. It

is a reduction on the 18.29 MtCO2e emitted in FY2011. The majority of our carbon emissions come from the combustion of natural gas to generate power and desalinate water.

The carbon intensity of our water and electricity generation combined is 0.502 tCO2e per MWh generated, for electricity alone it is 0.449 tCO2e per MWh. Our 2013 carbon footprint is currently being finalised as we develop our data management processes and controls to establish a more robust process to track our carbon performance on an ongoing basis.

### Carbon emissions by source, 2012

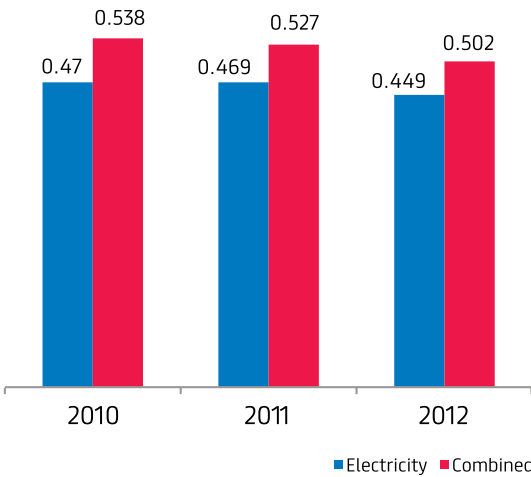
Mt of CO2e and percentage of CO2e emissions by source



Our inventory scope includes Scope 1 direct and Scope 2 indirect emissions as defined by the GHG Protocol Corporate Accounting and Reporting Standard. In 2012 - 2013, we have worked with the Dubai Carbon Centre of Excellence to measure our carbon baseline, identify carbon

### Carbon emissions intensity

tCO2e per MWh of electricity generated



reduction options and to consider the feasibility of achieving different levels of carbon impact reduction. We now aim to set short, medium and long term carbon intensity reduction targets measured by the tonnes of CO2e we emit for each MWh of combined electricity and water generation.

| Our long term commitment                         | KPI   | Potential reduction initiatives  |
|--|---|--|
| To reduce the carbon intensity of our generation | Tonnes of CO2 equivalent emissions per megawatt hour of electricity and water generated | <ul style="list-style-type: none"> <li>Emission reduction quick wins</li> <li>Heat Rate Improvement</li> <li>DSM</li> <li>Fuel mix</li> <li>Technology selection</li> <li>Aggressive Heat Rate Improvement</li> <li>Carbon Capture and Storage from 2027-30</li> </ul> |

# OUR CARBON REDUCTION STRATEGY

Our carbon reduction strategy is based on the following five pillars:



# SUPPLY SIDE ENERGY EFFICIENCY

**Our supply side energy efficiency strategy is comprised of three main pillars:**  
Investing in more efficient and reliable technologies for electricity and water generation both for existing and new facilities, reducing system losses in our transmission and distribution networks and reducing emissions and reducing leakage of GHG emissions from our equipment.



## Providing power and water efficiently

DEWA produces electricity and water mostly by co-generation; a process in which waste heat from the burning of natural gas to produce electricity is captured through heat recovery steam generators (HRSG) and used to produce steam (i.e. no fuel), which is used to produce water through the desalination process of multi-stage flashing or to generate additional free electricity. Over a number of years we have invested in efficiency improvements including converting many simple cycle gas turbine plants into more efficient combined cycle plants and installing cooling systems in our gas turbines. Overall, between 2006 and 2013, we have achieved a cumulative efficiency improvement of 26.9%. This has been achieved through a combination of optimum power plant design, power augmentation, optimised operations and optimised outage planning.

- Optimum power plant design:** For DEWA, deciding on the optimum design depends on the power to water requirements. In general, the optimum power and water production design is achieved in a hybrid system where water production is shared between several technologies – multi-stage flashing desalination and reverse osmosis.

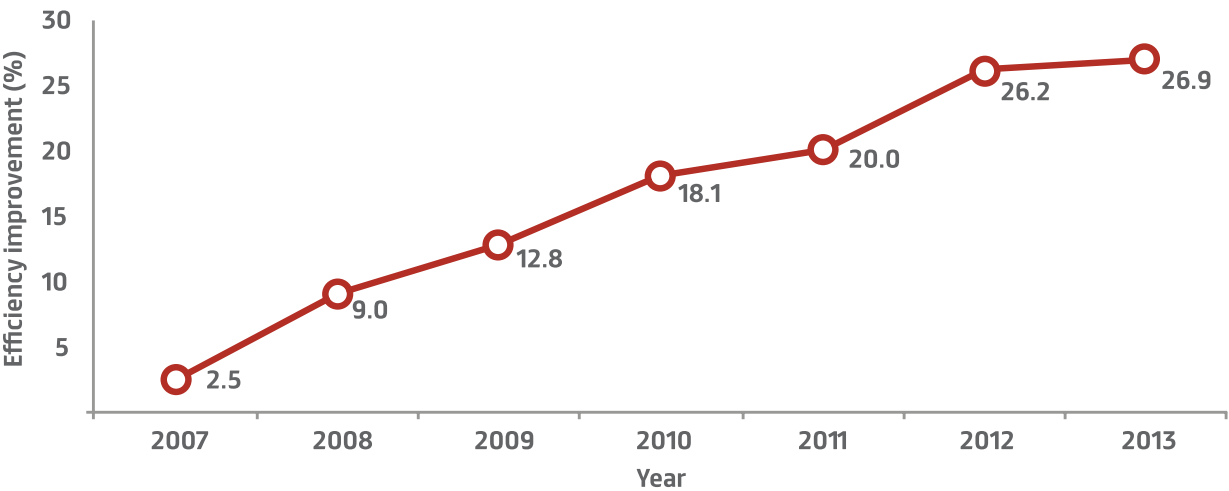
- Power augmentation:** In the summer months, with ambient temperatures reaching 45°C, gas turbine generation capacity typically drops by around 20% which reduces power output and increases costs. The recovery of this power loss and efficiency is possible using several cost-effective and proven power augmentation options (See TESTIAC and wet compression case studies). Through the use of these technologies, DEWA has cost-effectively increased capacity by 322MW in 2012.
- Optimised operation:** During times of low demand, some electricity generation units have to be shut down to avoid running inefficiently at low load levels. In DEWA, cyclic operation of units is completed on the basis of less efficient units being shut down first in order to permit operation of the remaining units at higher loads and improved efficiency.
- Outage planning:** DEWA uses a management tool that coordinates all maintenance outage requests to minimise outages and meet demand with the highest efficiency and minimum fuel cost.



In addition, we produce our own auxiliary power which is the electricity we consume to support primary electricity generation operations. By enhancing supply side efficiency we reduce our auxiliary power requirements thus reducing the carbon intensity of generation. We are proud to report a continuous year on year improvement on the amount of carbon saved through efficiency measures. In 2013, we saved 5.3 Mt CO2 through efficiency improvements and reduced auxiliary power consumption with respect to the year 2006, equivalent of reducing our scope 1 and 2 footprint by 23%.

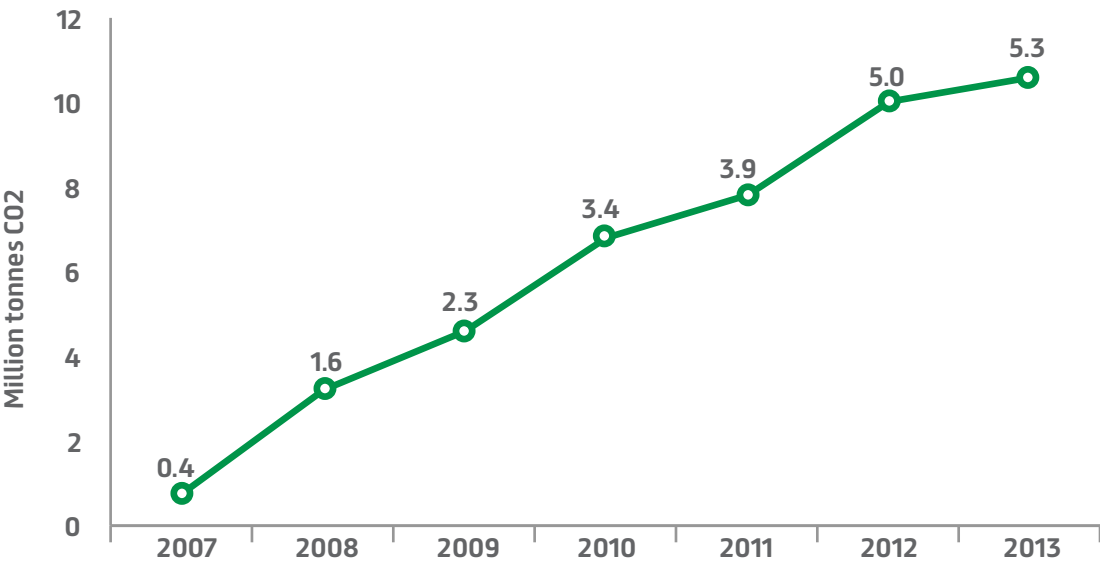
**Power and water production plant efficiency**

Cumulative efficiency gains from improvement in Gross Heat Rate 2006-2013



**Carbon emissions reduction**

Cumulative carbon reduction due to efficiency improvements and reduced auxiliary power consumption (MtCO2) 2006-2013



**THERMAL ENERGY STORAGE TURBINE INLET AIR CHILLING (TESTIAC)**

**DGEP 2011 - 2012 Award – (Distinguished Technical Project Category), IDEAS UK 2012 Award (Idea of the year - TESTIAC & Global Award)**

In the first project of its kind internationally to be implemented at commercial scale, in 2011 DEWA installed TESTIAC technology at three of its gas turbine units in the Jebel Ali power station complex. DEWA's installation has improved generation efficiency by 7% and generation capacity of the turbines by 20% while reducing green gas emissions by 7-9% compared to the baseline at a project capital cost equal to 30% of the market value for conventional power plants. The project provides sustainability benefits across the triple bottom line: it is cost-effective, reduces carbon emissions and brings societal benefits by increasing summer period power supply capacity and efficiency. TESTIAC is a power

augmentation technology designed to overcome the loss of turbine capacity and efficiency incurred when ambient air temperatures rise significantly above ideal design conditions, as happens in the summer in Dubai. TESTIAC creatively combines chilling and gas turbine technology, while capitalising on thermal energy storage technology. During off peak hours, the chilling plant charges the thermal energy storage tank. While during peak hours, the chilled water from the thermal energy storage tank is pumped to cool the inlet air of a gas turbine, simulating winter conditions and therefore recovering the loss in capacity and efficiency.





## WET COMPRESSION

### DGEP 2009-2010 Award (Distinguished Technical Project Category)

Between 2004 and 2011, DEWA installed wet compression technology on a total of eight gas turbines at two of its power plants at the Jebel Ali complex. The technology improved gas turbine efficiency by 3-5%, generation capacity of the turbines by 16-18% while reducing NOx emissions by 30-40% at project capital cost equal to 11-14% of the market value. The technology involves injecting atomised water droplets into the turbine air

inlet stream which enhances the overall efficiency and power output of a gas turbine through an evaporative cooling effect in the air inlet, interstage cooling in the compression stage (which reduces the power required for compression) and by increasing the mass flow through the turbine. Wet compression is cost-effective and brings significant environmental benefits.

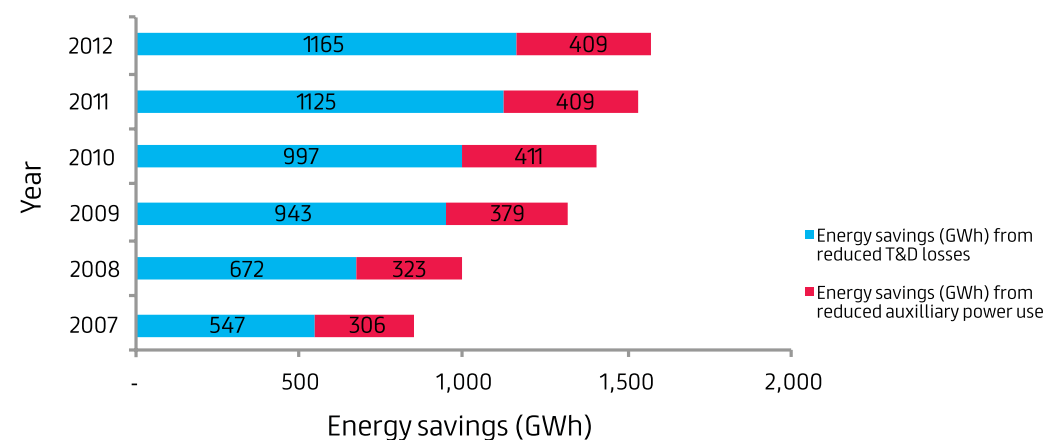


### Reducing system losses

It is also vital that we transport electricity to our customers in a way that enhances both reliability and efficiency as it travels through our transmission and distribution (T&D) network. We are making substantial investments to reduce losses from our networks through new substations and the implementation of our Intelligent Metering System and Smart Grid. Our continued efforts to optimise our network has resulted in our 2013 transmission line losses being only 3.46% compared to 6-7% in US and EU. The following chart shows the increasing amount of energy saved each year from efficiency gains and reduced T&D losses.

### Energy Savings

Energy Savings due to reduced transmission and distribution losses and reduced auxiliary power consumption (GWh) 2006-2013



## LOW CARBON OPERATIONS

We have implemented a number of initiatives to reduce GHG emissions from our operational processes. For example, we have been working to reduce the leakage of a potent greenhouse gas called SF6 from switch gears used to control, protect and isolate electrical equipment. SF6 (Or Sulphur Hexafluoride) has a global warming potential of 22,800 times that of carbon dioxide and so any leakage could be significant. All SF6 gas leaks from 132 & 400 kV GIS are promptly attended by our maintenance team with the aim of achieving 100% rectification of identified SF6 gas leaks.

Although the big levers for reducing our carbon emissions reside in power and water generation and distribution, we also believe that low carbon practices should be embedded throughout our entire operations, including the way we manage our vehicle fleet, business processes and buildings. An excellent example is our new service centre in Al Quoz, the largest government building in the world to be LEED Platinum-rated.

### DEWA SUSTAINABLE BUILDING AL QUOZ



### MEED Quality Awards for Projects 2014 Sustainable Project of the Year in the UAE.

Our Sustainable building achieves 66% energy savings and 48 % of water savings compared to a standard building. The building achieved the world's highest LEED Platinum rating, achieving 98 points out of a maximum 110. It features solar power, ultra-efficient LED lights, automatic curtains and advanced insulation. In the same area, the new DEWA office is also LEED Platinum-rated and the largest government building in the world to be so; with highly efficient water-cooled air conditioning, Energy Star office equipment, extensive ambient daylight, solar panels and a wind turbine.



# INVESTING IN RENEWABLE ENERGY

“ We have been examining potential incentives for private sector adoption (of renewables), as well as surveying the UAE’s and the region’s solar initiatives as successful benchmarks. Observing the initial success stories in Dubai, we can all anticipate eventful years to come. ”

**Waleed Salman**

DEWA Executive Vice President for Strategy & Business Development

We have an important role in supporting the Dubai Integrated Energy Strategy to achieve its objective to generate 5% of Dubai’s fuel mix from solar energy by 2030. By investing in renewables we are able to further lower the carbon intensity of our generation as well as diversify our energy supply to ensure reliability.

Dubai’s focused effort in developing the renewable energy sector naturally focuses on harnessing solar energy to take advantage of our regions high solar irradiation levels. By investing in solar research and development, the UAE has the potential to lead the renewable energy sector in the years to come.

## MOHAMMED BIN RASHID AL MAKTOUM SOLAR PARK

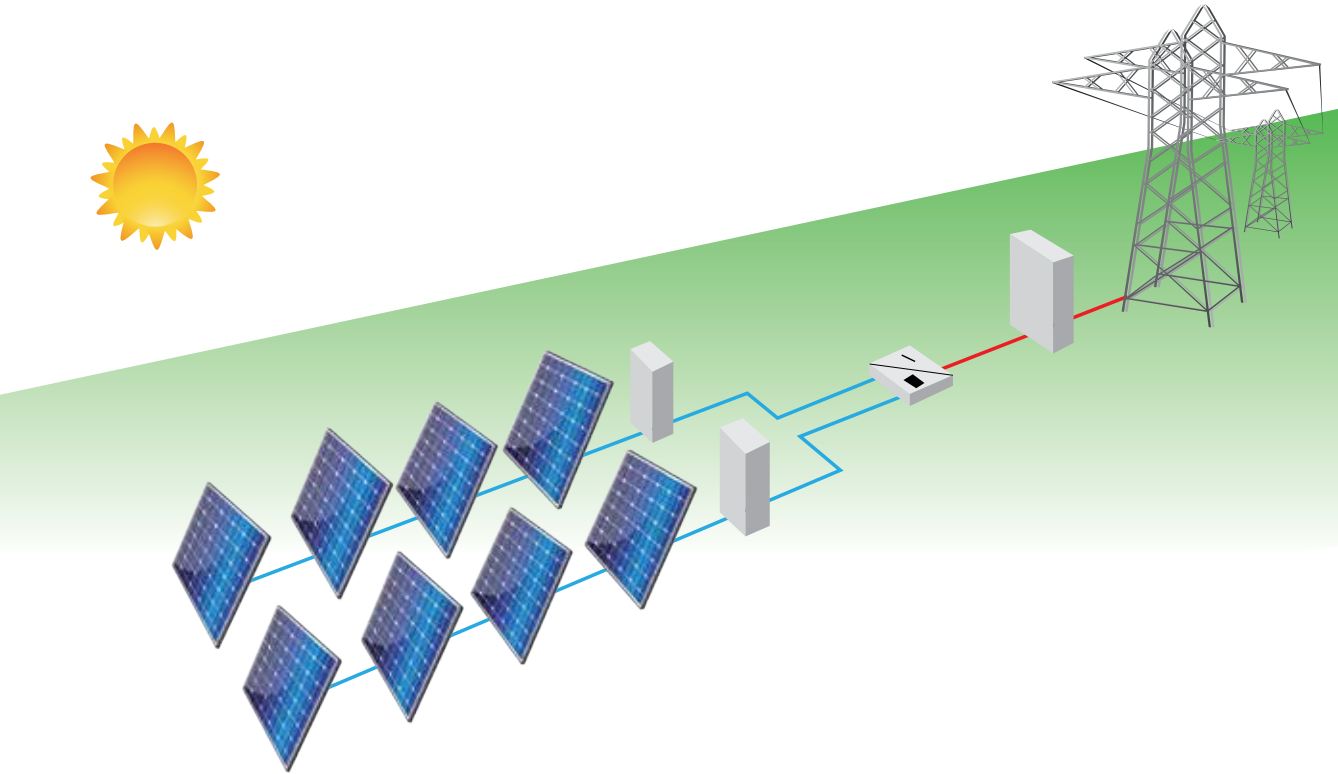
The launch of the Mohammed bin Rashid Al Maktoum Solar Park demonstrates our commitment to harnessing renewable energy and improving the quality of Dubai’s environment, for generations to come. The Solar Park, at an estimated investment of AED 12 billion, is a photovoltaic power plant in Seih Al Dahal, 30 kilometres southeast of Dubai that uses the sun’s light to produce electricity. The first phase of the project started operation in October 2013 with a capacity of 13MW and has been awarded the Power Project of the Year in the GCC by MEED Quality Awards for Projects 2014. The second phase of the Solar Park will enter service in 2017 with a capacity of 100 MW. Our ambition is to increase our additional generation capacity from solar technology to 1000MW between 2017 and 2030. The solar park will be displacing nearly 1 million tonnes of carbon dioxide per year when it is completed. The Park also includes a centre for research and development and will provide global financial investment opportunities in green finance.



# MAKING RENEWABLE ENERGY ACCESSIBLE TO ALL

In addition to managing the Mohammed Bin Rashid Al Maktoum Solar Park, we aim to establish a roof-top solar systems market for Dubai’s residential and commercial property owners. This will be supported by an offset mechanism against the consumption of property owners who own a renewable electricity system, based on the amount of electricity they generate.

In preparation, we have analysed our own power grid to assess the ability to absorb distributed renewable generation (from property owners) together with the large-scale generation planned for the solar park. The findings indicate that DEWA’s network is technically able to accept 20% of its grid capacity from distributed renewable generation. However, there will be a number of technical challenges to ensure that this does not impact the stability and reliability of the network.



# PROMOTING GROWTH IN THE RENEWABLES SECTOR

We hope to achieve a tangible contribution to the growth of the renewable energy sector in the UAE. We believe that we are perfectly positioned to provide a platform for industry and academia to connect and transfer knowledge to create innovative new renewable energy solutions.

We will create a Research and Development (R&D) Centre in the Mohammed bin Rashid Al Maktoum Solar Park. The Centre's purpose will be to enhance knowledge transfer, develop new renewables capacity and allow the introduction of the latest renewable energy technologies. As such it will contribute to achievement of Dubai's vision of a knowledge-based economy and facilitate accomplishment of the Dubai Integrated Energy Strategy goals. By developing formal links with local and international research units and supporting collaboration between researchers and business, the centre will form a renewables hub for Dubai.

DEWA is also a partner in the 'Atlas Project' along with the Dubai Supreme Council of Energy and Masdar. The project is designed to support the development of the rooftop solar power market in the UAE by facilitating selection of the most appropriate technologies, optimising solar system design and identifying the most cost-effective locations for future installations. A satellite receiving station located at DEWA's Head Office will provide renewable resource assessment information for the UAE including satellite-based solar maps and information on wind and geothermal resources. The facilities will eventually be transferred to the proposed (R&D) Centre at the Mohammed bin Rashid Al Maktoum Solar Park.

# ACCESSING CARBON MARKETS

DEWA and the Dubai Carbon Centre of Excellence which is part owned by DEWA are working together to initiate a carbon credits programme under the Kyoto Protocol's Clean Development Mechanism (CDM). Through the CDM, we can earn certified emission reductions credits for certain projects that achieve emission reductions. The credits can be used to meet our own emission reduction

commitments or to generate additional revenue by trading them in the international carbon markets. We are currently in the process of registering a number of carbon reduction projects with the CDM Executive Board, while three of our CDM projects have already been registered.

# PROMOTING ENERGY CONSERVATION

As the power and water utility provider of Dubai, we have an important role to play in helping to realise the Dubai Integrated Energy Strategy demand reduction target of 30% by 2030. In response, we have been working with the Dubai Supreme Council of Energy to develop a long term demand side management plan which will help deliver reductions through the following programmes.

# DUBAI'S 2030 DEMAND SIDE MANAGEMENT PLAN

DEWA DSM plan builds on a number of existing and past initiatives that we have delivered to enhance efficient use of water and power.

## DEWA'S 2013 Demand Side Management initiatives

| Objective  | Activity  |
|--|---|
| <div>Awareness campaigns</div> <div>Educate the public on conservation and best practices in electricity and water consumption and usage</div> | <ul style="list-style-type: none"><li>Programmes for educational institutions, government departments, commercial establishments, residents, neighbourhoods etc.</li><li>Integrated media campaigns, road shows, workshops etc.</li><li>DEWA website (conservation tips), Social media</li><li>Broadcast email and SMS messages</li><li>Leaflets, brochures</li><li>Recognition schemes (Best Consumer Award, Conservation Award - For a Better Tomorrow)</li></ul> |
| <div>Changing behaviours</div> <div>Assist our residential customers to understand their consumption</div>                                     | <ul style="list-style-type: none"><li>Monthly tracking of consumption through customer e-services portal</li><li>Recognising monthly consumption slab-wise</li><li>Benchmarking consumption</li><li>Customer CO2 footprints</li></ul>   |
| <div>Electricity and water audits</div> <div>Identify ways for our customers to conserve water and power</div>                                 | <ul style="list-style-type: none"><li>Electricity and water audits covering most governmental buildings, office buildings, hotels, shopping centres and residential buildings.</li></ul>  |
| <div>Pricing</div> <div>Accurately value our resources</div>   | <ul style="list-style-type: none"><li>Slab rate tariffs</li><li>Fuel surcharge</li></ul>  |
| <div>Energy saving equipment</div> <div>Provide energy/ water-saving devices</div>   | <ul style="list-style-type: none"><li>Freely distributing to the audience, during society-engagement drives, efficient devices for homes such as energy-saver lamps, water-flow reducers/aerators etc.</li><li>Smart eco-friendly home appliances awarded to winners in DEWA's environmental events</li></ul>   |



# RAISING AWARENESS

Through campaigns on our website and other public media, we seek to educate the public on methods of saving water and electricity. In 2012 we launched the ‘Do Good to Planet Earth’ campaign to urge customers to opt for eco-friendly home appliances; it called customers’ attention to the energy and water-efficiency parameters of the products. In addition, we relentlessly pursue participation in important cause-related environmental events, such as Earth Hour, World Environment Day, and the World Water Day. Likewise, the holy month of Ramadan is an important occasion for us to drive home the message of ‘responsible utility consumption’. We have also undertaken energy audits for high-volume commercial customers.

Our efforts to reduce demand through awareness campaigns and efficiency audits have delivered significant cost savings which are increasing year-on-year. In 2012, we have estimated a cost saving of almost AED 400 million .



**Demand Side Management initiatives.**

We believe that awareness campaigns can help change the way Dubai’s residents think about the environment and resource use. For example, in 2013 under the patronage of HH Sheikh Hamdan bin Mohammed bin Rashid Al Maktoum, Crown Prince of Dubai and Chairman of the Dubai Executive Council, DEWA organised the campaign to encourage Dubai residents to participate in the Earth Hour event. The Dubai event achieved savings results of 200,000 kWh (equivalent to 120 tonnes CO2), through simple measures such as turning off the lights and unnecessary home appliances. The event emphasized the importance of protecting the planet, through best practices in utility consumption and usage, and minimizing carbon emissions.

**Communicating consumption.**

It is important that our customers can quickly and easily understand how much power and water they are using, how much this is costing them and how their usage compares with others. To achieve this we have undertaken a behaviour-based energy efficiency project to improve access to consumption information and communicate ways to conserve power and water.

The project improves power and water conservation awareness among our customers by benchmarking their consumption with the average consumption in their community and allowing them to access the energy and water conservation tips in our customer portal. Customers will be able to access a graphical comparison of monthly consumption, to benchmark consumption with the average community consumption, receive energy and water conservation tips and measure their CO2 footprint.

# OUR FUTURE COMMITMENTS

Our key commitments in relation to energy and climate change are detailed below.

| Issue                                   | Commitment   |
|---|--|
| Supply side energy efficiency           | To reduce the carbon emissions intensity of our electricity and water generation |
| Low carbon operations                   | Embed low carbon practices throughout our operations                             |
| Investing in renewable energy           | Diversify our fuel use to incorporate renewable options                          |
| Accessing carbon markets                | To be a role model for successful participation in international carbon markets  |
| Promoting energy and water conservation | To contribute to a reduction in energy and water demand in Dubai                 |





# WATER

WE REDUCED WATER LOSSES TO **10.40%**  
OF TOTAL WATER PRODUCED IN 2013,  
REFLECTING A **75% IMPROVEMENT SINCE 1988**

WE MET **100%** OF DUBAI'S WATER  
NEEDS IN 2013, CONTINUING OUR LONG-  
RUNNING TREND OF PROVIDING ACCESS  
TO WATER FOR ALL IN DUBAI

WE BEGAN TO IMPLEMENT OUR  
**SMART NETWORKS AND  
METERS PROJECT**

## SECTION CONTENTS

- Our principles
  - Water quality
  - Wastewater discharge management
  - Customer water use
- Our management approach
  - Water production
  - Water distribution
- Our future commitments

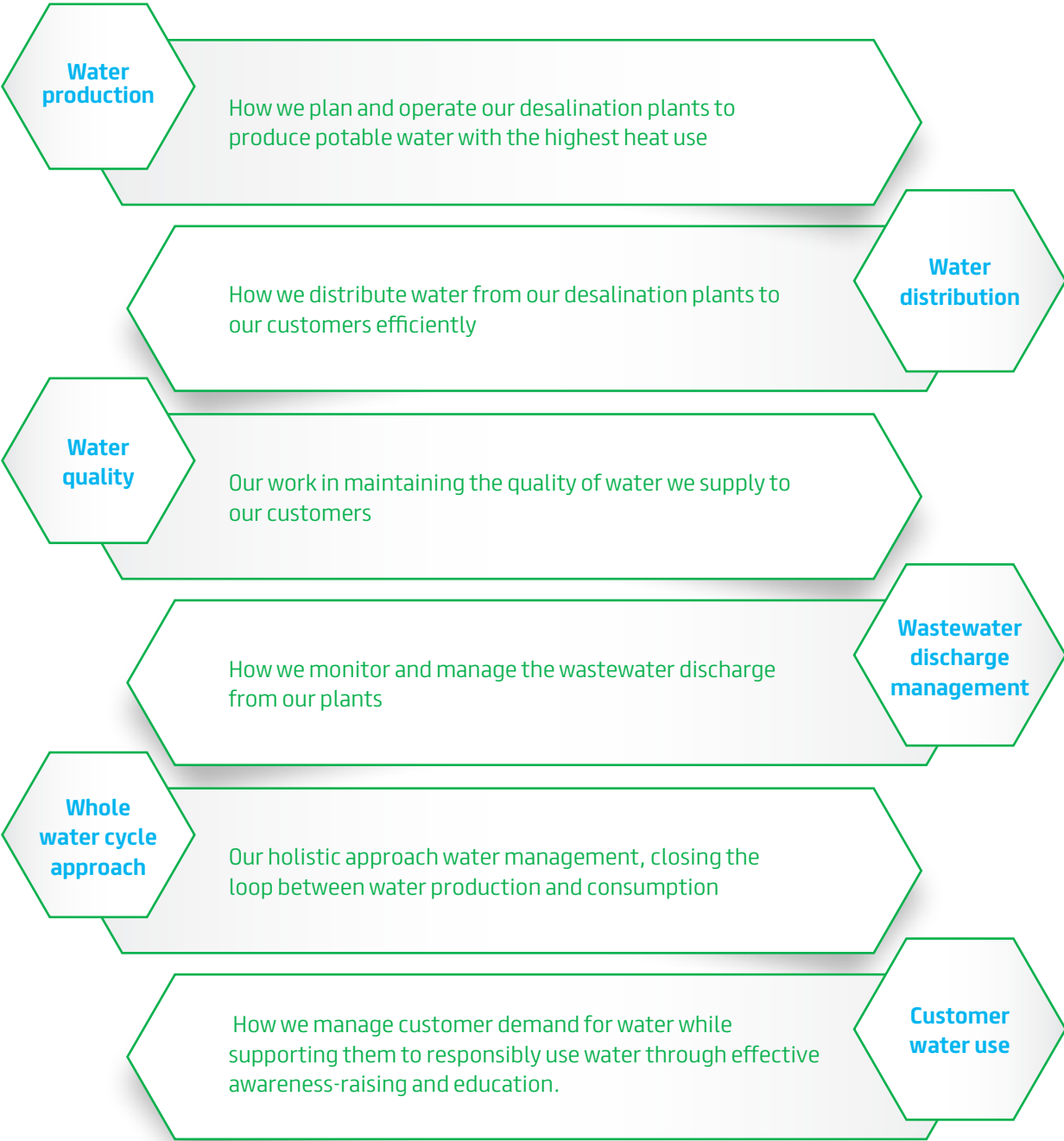


# OUR PRINCIPLES

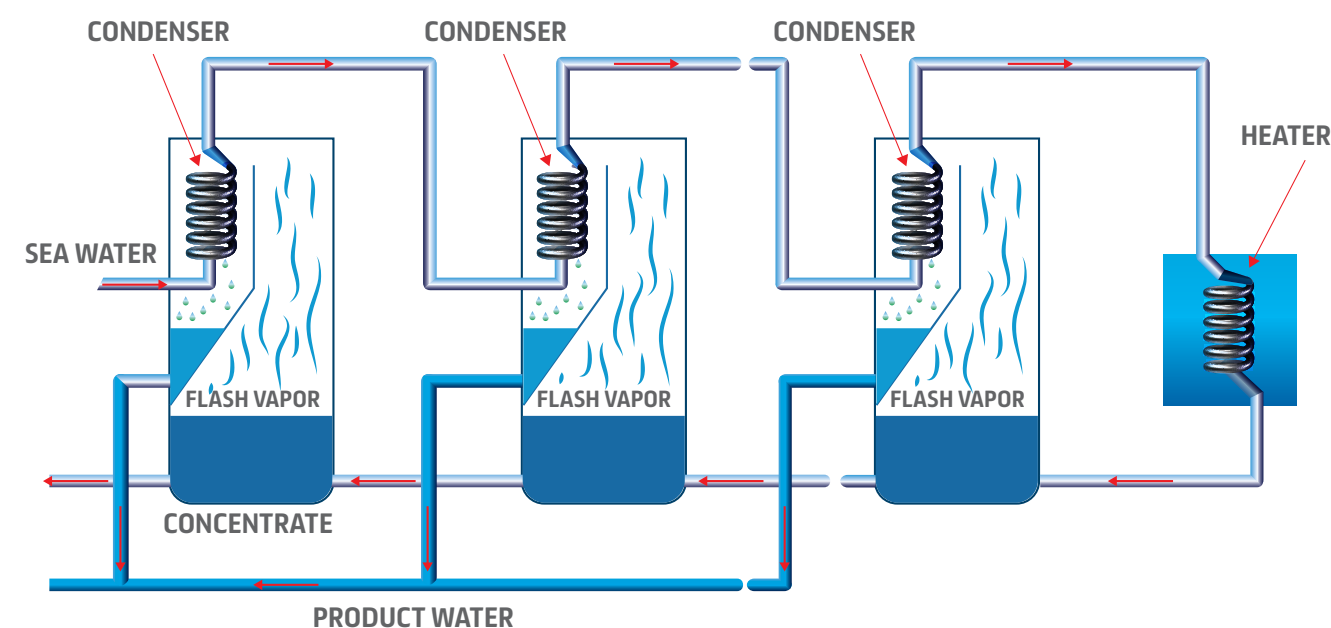
We aim to maximise water efficiency in our own operations and to help our customers minimise water use. We are committed to maintaining water quality – not only the quality of water that we deliver to our customers, but also the quality of the fresh and marine water resources that we rely on to produce freshwater.

# OUR MANAGEMENT APPROACH

Our approach to managing water issues is focused on six key areas.



# WATER PRODUCTION



The majority of the water we produce, comes from desalination. The main input to the desalination process is seawater from the Arabian Gulf. The seawater is pumped to our Jebel Ali Power and Desalination complex, pre-treated and then supplied to the desalination plants and steam turbine condensers.

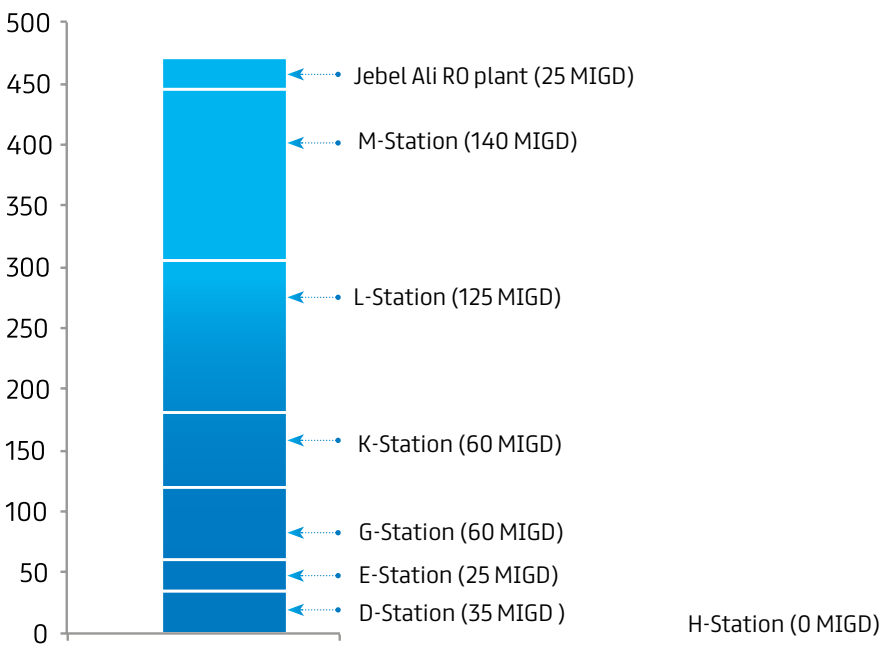
One challenge for DEWA is that the quality of seawater in the Arabian Gulf is at risk of deteriorating further due to pollution associated with oil extraction and industrial activities along the GCC coastline. The lower the quality of seawater intake, the higher the amount of energy is required in the pre-treatment and desalination

processes. We are monitoring the intake water quality situation whilst also investigating a number of solutions (including innovations in desalination technologies) to address this issue.

A percentage of the water we produce (approximately 32 million imperial gallons per day during 2013) is abstracted from underground aquifers including the Al Aweer and Habab aquifers. In the UAE, groundwater abstraction from aquifers (driven largely by agriculture) is depleting groundwater reserves. We recognise that use of water from aquifers needs to be managed carefully.

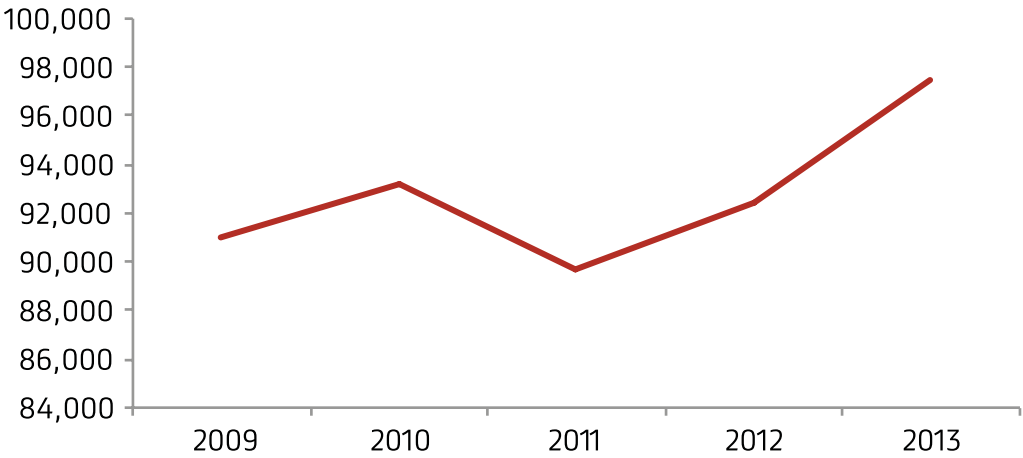
# WATER PRODUCTION

Total water production capacity 2013 (million imperial gallons per day)



Notes:  
The Jebel Ali RO plant produces water through reverse osmosis. Other desalination plants use MSF desalination technology

Total water produced 2009 to 2013 (million imperial gallons)





# WATER DISTRIBUTION

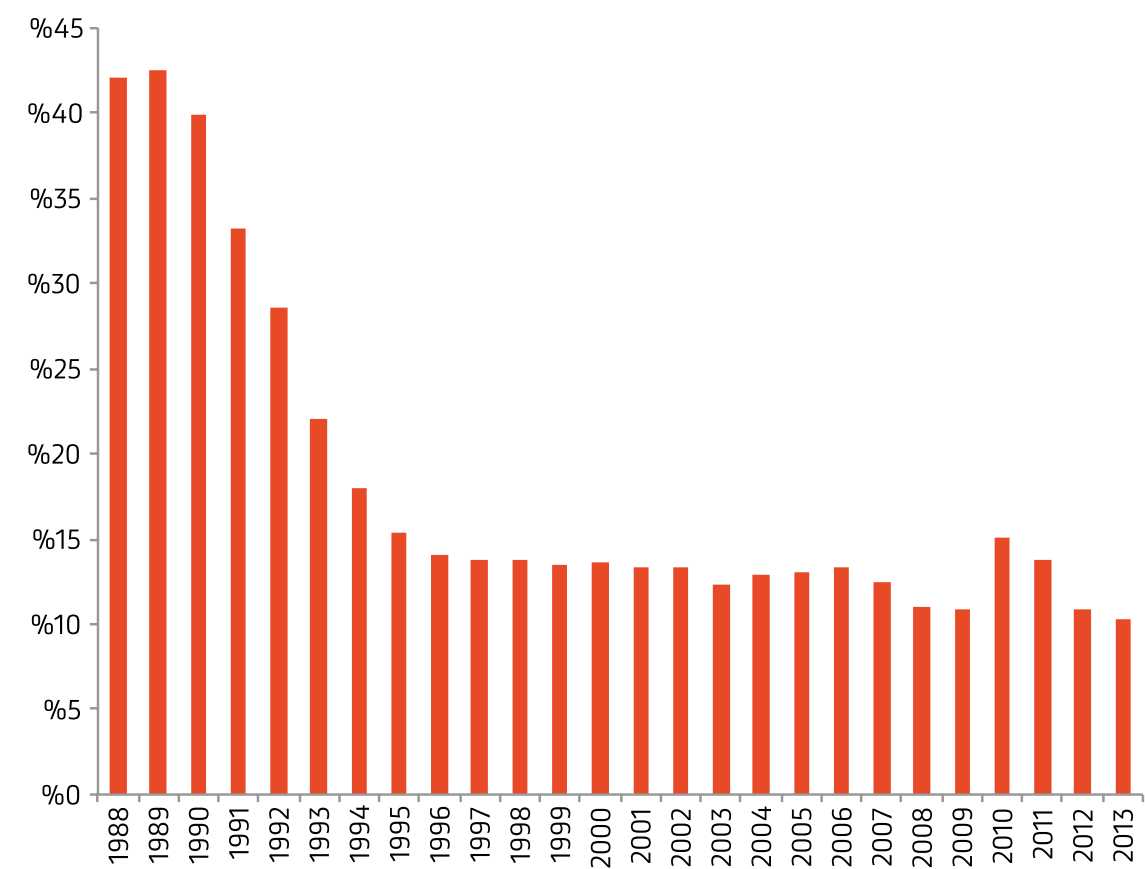
In 2013, we continued to be successful in meeting the water needs of 100% of our customers, reflecting our commitment to supplying Dubai’s population with basic needs.

Once produced, potable water is stored in the Jebel Ali reservoir complex. To ensure that we never run short of water, we store enough in our reservoirs to satisfy around 2.7 days of peak demand. Water drawn from the reservoirs is distributed to our customers through a network of pipes. We manage our water pipelines to minimise losses

of water, for example through leakages or unbilled meters, which we monitor using our ‘Unaccounted for Water’ (UFW) metric.

In 2013, our UFW continued on a long-term downward trend (from 42.1% in 1988) reaching to 10.4% reflecting continuous improvements in our water distribution infrastructure. Whilst this is slightly behind our 2013 target (of 10%), it compares favourably with water utility performance in other developed countries (whose average UFW is around 20%).

Unaccounted For Water (UFW) as a percentage of total water produced



Our water infrastructure network has 38 pumping stations, all constructed after 2007, which have variable speed drives that make them up to 40% more energy efficient than previous technologies. We are currently investing further in our water pumping stations by retrofitting eight additional stations with variable speed drives. The majority of our water transmission lines were

laid within the last five years and are in good condition. We are currently investing in new leak detection methods and capabilities to detect leaks earlier, such as sonic leak detection, which uses sound to measure sections of pipes to identify very small leakages that may not be visible to the human eye.

# WATER QUALITY

DEWA is responsible for the quality of water that is distributed from our desalination plants to the point of the water meter of buildings of Dubai. Dubai Municipality is responsible for monitoring water quality in households. We monitor water quality across our

network, collecting water samples from pumping stations, reservoirs and well fields across Dubai. Samples are measured for pH, turbidity, residual chlorine dioxide, mineral profile, and electrical conductivity to check conformance with DEWA specifications.



At present, the majority of residents of Dubai do not drink tap water. This is because, although water quality is good to the meter, thereafter water is stored in tanks in residences and these are generally not well maintained. This problem with water quality can be rectified, at least in the short term, by having households fit water tap filters. To raise awareness of this issue, DEWA has run public awareness campaigns and we now put messages on household bills to emphasise the importance of tank cleaning and maintenance .



# WASTEWATER DISCHARGE MANAGEMENT

DEWA is responsible for managing the discharge of process wastewater generated from the sites that we own and operate. In Dubai, municipal wastewater treatment falls under the responsibility of Dubai Municipality. In 2013, our total volume of wastewater discharge was 4670.27 million cubic metres, primarily comprising process wastewater from our power and desalination plants, which is discharged to the sea in the Arabian Gulf.

Volume of wastewater discharge (million m3) by source 2013

| Type of effluent                          | Total volume (million m³) discharge |
|---|-------------------------------------|
| Process water from Power plant            | 1590.485                            |
| Process water from Desal plant            | 3079.473                            |
| Water treatment plant effluent            | 0.094421                            |
| Treated sewage water (to land)            | 0.186955                            |
| Treated sewage water (to sea)             | 0.031057                            |
| Treated sewage water                      | 0.218012                            |
| Waste Water Discharged to Marine and Land | 4670.271                            |

Our desalination plants produces brine, a high saline water that remains after freshwater has been extracted from the seawater. We recognise that brine outfall has the potential to impact the environment. We monitor our wastewater discharges monthly and collaborate with regulators to make sure we are within the permissible limits for wastewater discharge quantity and quality in terms of salinity and temperature. We have installed a continuous monitoring system to monitor the

We also produced smaller volumes of effluent from our water treatment plants (94421 m3) and on-site treated sewage effluent (218012 m3), out of which 186955 m3 was discharged to land for landscape irrigation inside the premises and the remaining 31057 m3 of treated sewage was discharged to the sea along with other process wastewater.

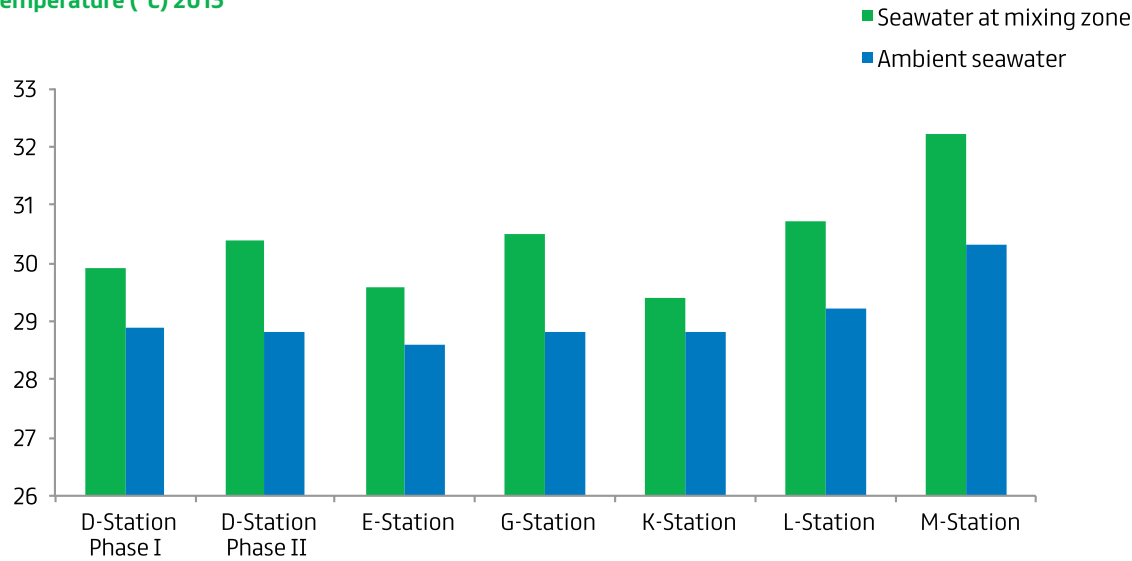
temperature, salinity, pH and dissolved oxygen at 500m, 1km and 1.5km away from the discharge points between D-Station and M-Station.

Bimonthly and quarterly ecological assessments (phytoplankton/ zooplankton and macro benthos respectively) are also carried out at 300m and 1.5km away from the discharge points of D-Station, K-Station & L-Station.

We also monitor the difference in temperature and salinity between the seawater in the mixing zone (500m away from the discharge point) and ambient seawater (measured 1.5km offshore). We monitor the release of

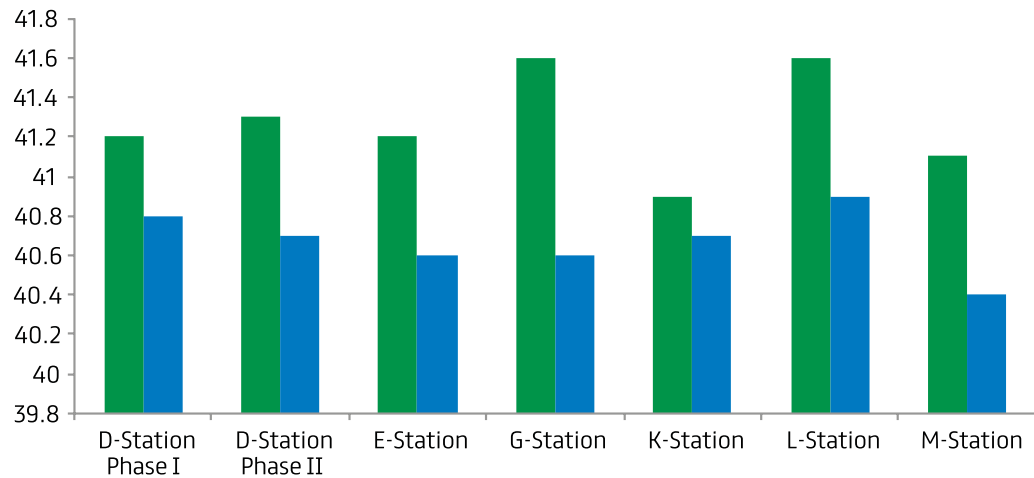
brine to ensure that temperature differences do not exceed 5°C, complying with the wastewater permit issued to DEWA by Dubai Municipality.

Seawater temperature (°C) 2013



- Notes:
- 1) Seawater at mixing zone is sampled at a point 500m away from the wastewater discharge outlet point
  - 2) Ambient seawater is sampled 1,500m away from the coastline and represents the condition of seawater outside the immediate influence of DEWA’s wastewater discharge.
  - 3) Readings are based on single random sampling performed monthly throughout the year.

Seawater salinity (ppt) 2013



- Notes:
- 1) Salinity is measured in PSS-78 Practical Salinity (ppt).
  - 2) Seawater at mixing zone is sampled at a point 500m away from the wastewater discharge outlet point
  - 3) Ambient seawater is sampled 1,500m away from the coastline and represents the condition of seawater outside the immediate influence of DEWA’s wastewater discharge.
  - 4) Readings are based on single random sampling performed monthly throughout the year.



# WHOLE WATER CYCLE APPROACH

We expect that demand for freshwater will continue to increase stimulated by growth in Dubai’s population and economy. Advancement in water production and treatment technology, combined with more integrated water resource management, will be an essential pre-requisite for sustainable development in the Gulf region. We see water within the system wide context of the whole water cycle and believe that Dubai will need to employ more holistic water management approaches to meet the water resource challenges ahead. As the sole provider of water in Dubai, we have a vital role to play to address these challenges through collaboration and innovative thinking.

We believe that we can work more closely with our customers to help them identify opportunities for re-using water within their own processes. We have an established relationship with Dubai’s urban planners and we participated in the update of Dubai Urban Development Strategy. Going forward, we can take further ownership of the water cycle by working with our partners to recycle water in the urban system.

We have already begun thinking about how we can close the water cycle, through re-use and recycling, and how we can replace potable water with alternative water sources. For example we are working with Empower to pioneer the use of seawater in district cooling. We also partner with Dubai Aluminium (DUBAL) to ensure that surplus water generated in their manufacturing processes is incorporated into the water system and not wasted. And we have already begun to close the water cycle in the following ways:

- Process wastewater from washing of limestone filters in our plants is recovered to the drinking water system.
- Treated process wastewater and treated sewage effluent wastewater from some of our stations is used for landscape irrigation.
- Treated sewage effluent wastewater is used for secondary (non-drinking water) purposes at some of our staff accommodation sites.



# CUSTOMER WATER USE

Under our demand side management strategy, we have succeeded in reducing the annual per capita consumption rate of water to 40,777 gallons in 2013 compared with 44,631 gallons in 2010. We aim to reduce water consumption in Dubai from 40,777 gallons per capita per year to 37,592 gallons per capita per year by 2017.

Each year, DEWA organises events for the United Nations World Water Day in collaboration with Dubai Municipality and other community organisations, where we raise awareness about water efficiency. DEWA also provides a programme of free power and water audits that provide DEWA customers with recommendations for electricity and water conservation.

We introduced a slab tariff structure in 2008 and a surcharge system in 2011. Our tariffs rates change

depending on the volume of water use. Tariff design is one area that we continue to analyse to better understand how we can incentivise water efficiency. However, DEWA still continues to offer water at competitively low rates.

As part of the smart city initiative, we have begun to implement our Smart Networks and Meters project. The project will see the replacement of mechanical and electromechanical with state-of-the-art smart meters. The intelligent meters are part of a bi-directional digital communications system that can automatically send data to DEWA. The meters will also provide customers with detailed information on their consumption, so that they can identify the best ways to reduce both water and energy use and their bills.

We will continue to build upon our previous successes in the water industry such as winning the internationally -recognised Global Water Intelligence (GWI) Global Water Award in 2010.

“ The new smart meters will automatically send usage readings over the latest communications systems, such as fibre optic networks, which will maintain all consumption records and consumer operations. This will make us the first service provider in the region to launch such a platform. ”

**His Excellency Saeed Mohammed Al Tayer**  
Managing Director and Chief Executive Officer, DEWA

## Reducing the demand for potable water in district cooling: our work with Empower

District cooling, which typically uses large quantities of freshwater has great potential to deliver significant carbon savings within Dubai. DEWA is working with Empower to discover innovative ways to minimise water wastage and efficiently operate chiller systems, while lowering the cost of operation. Empower has already achieved water savings by developing systems

that use a blend of treated sewage effluent (TSE) mixed with reverse osmosis (RO) desalinated water. Empower is currently pioneering innovative solutions for using seawater in district cooling that will further reduce the desalinated water requirements for Dubai’s cooling systems.



# OUR FUTURE COMMITMENTS

As we progress through 2014 and beyond, we will seek continuous improvement in our performance.  
Our key commitments in relation to water are detailed below.

| Issue                      | Commitment   |
|----------------------------|--|
| Water production           | Play an active role in managing our marine and aquifer water resources   |
| Water distribution         | Minimise water losses to leakage in our distribution system and meter all water delivered to our customers             |
| Water quality              | Conduct strategic initiatives with our partners to improve water quality from plant to tap                             |
| Whole water cycle approach | Support our customers to identify strategies for using water more efficiently by maximising water re-use and recycling |
| Customer water use         | To contribute to a reduction in water demand in Dubai  |





# ENVIRONMENTAL PROTECTION

## BRITISH SAFETY COUNCIL'S GLOBE OF HONOUR FOR ENVIRONMENT

AWARDED TO  
DEWA FOR THE SECOND CONSECUTIVE  
YEAR FOR EXCELLING IN ENVIRONMENTAL  
MANAGEMENT

## ISO-14001 CERTIFICATION

MAINTAINED CONTINUOUSLY  
AT THE CORPORATE LEVEL SINCE 2006

WE REDUCED

## 3,281 TONNES OF NO<sub>x</sub> AIR EMISSIONS

THROUGH  
EFFICIENCY IMPROVEMENTS IN 2013, THE  
GREATEST ANNUAL REDUCTION ACHIEVED  
SINCE MEASUREMENTS BEGAN

## SECTION CONTENTS

- Our principles
- Our management approach
  - Ecosystem, biodiversity & habitat protection
- Our future commitments
  - Minimising emissions
  - Managing our waste
  - Environmental compliance



## OUR PRINCIPLES

We are committed to protect and improve our natural environment for future generations. Furthermore, we understand that environmental protection is a key requirement for the continued success of our organisation. We believe that environmental protection should be upheld throughout our entire value chain, in the way we purchase products and services, the way we manage our own operations and by educating our customers in water and power conservation.

“ In fulfilment of the directives of His Highness Sheikh Mohammed bin Rashid Al Maktoum, Vice President and Prime Minister of the UAE and Ruler of Dubai, and in line with our vision to become a sustainable world-class utility, we are committed to adopting the best possible international standards in health, safety, and environmental protection. This underlines our focus to implement an effective strategy, where DEWA has experts to achieve its commitments to ensure the highest-possible international health and safety, and environment standards for a sustainable future. ”

**His Excellency Saeed Mohammed Al Tayer**  
Managing Director and Chief Executive Officer, DEWA



# OUR MANAGEMENT APPROACH

The precautionary principle has been implemented in DEWA with regards to the environment. We have a corporate procedure (fM SP-13) that describes the preventative actions that should be taken to eliminate the cause of the potential non-conformity, defect or other undesirable situations in order to avoid the occurrence. To ensure that we effectively manage these risks and meet industry standards, we have implemented an ISO-14001 certified environmental management system (EMS) which has been maintained at the corporate level since 2006 and in our Generation division since 1998. This has provided the foundation for continuous improvement in the way we manage our environmental impacts. Our EMS includes establishing objectives for environmental work

and training personnel. In 2013 we provided 54 unique environmental trainings to 650 of our employees.

The success of our environmental management system has been recognised by the British Safety Council (BSC). DEWA has maintained the BSC Environment 5 Star certification since 2011. Those that achieve the certification can then compete for the Globe of Honour award. Adding to its portfolio of international awards, DEWA has won the BSC's Globe of Honour for the second consecutive year with a full mark score, in recognition of our commitment to achieve all-round excellence in environmental management. DEWA was the first utility in the MENA region to achieve this award.

“ I am delighted that our efforts and strategy have been recognized with this international accolade and benchmark of our commitment to Health, Safety and the Environment. Our vision is to become a sustainable world-class utility, and this requires the inclusion and operation of world-class standards of health and safety for DEWA's employees, customers, partners and society as a whole ”

**His Excellency Saeed Mohammed Al Tayer**  
 Managing Director and Chief Executive Officer,  
 DEWA said on receiving the awards which have been dedicated to HH Sheikh Mohammed bin Rashid Al Maktoum, Vice President and Prime Minister of the UAE and Ruler of Dubai.

In this section, we discuss the following key environmental impacts.

|  |  |
|--|--|
| Ecosystem, biodiversity & habitat protection | Where possible, operating our business in a way that minimises our impact to the surrounding ecosystems.   |
| Minimising emissions                         | Air emissions (e.g. SOx & NOx), other air emissions, water pollution and land contamination are minimised.   |
| Managing our waste                           | Solid, liquid and water waste from our operations are minimised.   |
| Environmental compliance                     | Ensure that we are compliant with all relevant environmental legislation through a half yearly identification and evaluation of compliance with legal and other requirements relevant to environmental regulation. |

# ECOSYSTEM, BIODIVERSITY & HABITAT PROTECTION

“ We all need to assume our roles in protecting the environment and preserving the balance of its interconnected eco-systems ”

**His Excellency Saeed Mohammed Al Tayer**  
 Managing Director and Chief Executive Officer, DEWA

Prior to construction, all of DEWA's major generation and desalination operations are subject to environmental impact studies which are conducted by independent consultants to international standards. Throughout the operation of our plants, we regularly commission specialist consultants to monitor our impact on the marine environment. The consultants conduct ecological surveys throughout the year monitoring populations of organisms that support healthy marine ecosystem

functioning. Environmental specialists also monitor our wastewater discharge points to identify any potential harmful algal blooms that could lead to 'red tide' events – these are events where algae grow out of control, produce toxins and deplete oxygen in the water, which is harmful to other marine life. We are conscious of how thermal discharges might contribute to causing these events, and we are seeking ways to manage this.

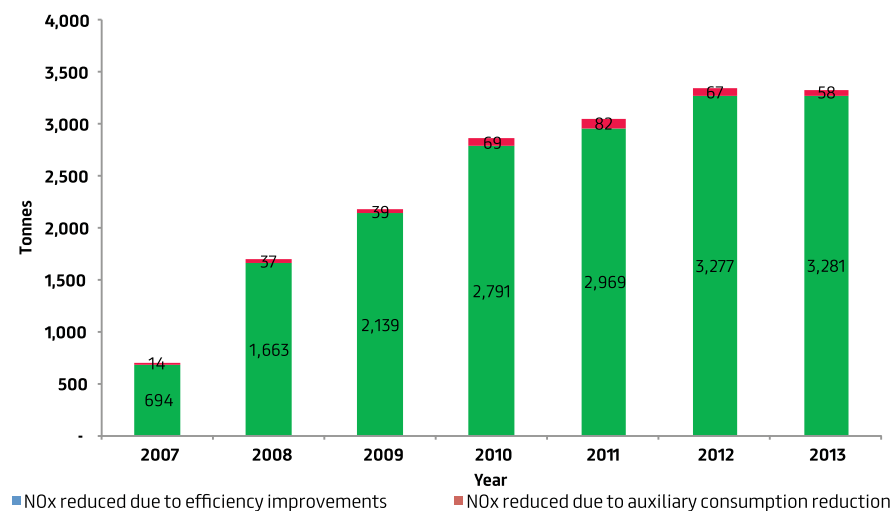


# MINIMISING EMISSIONS

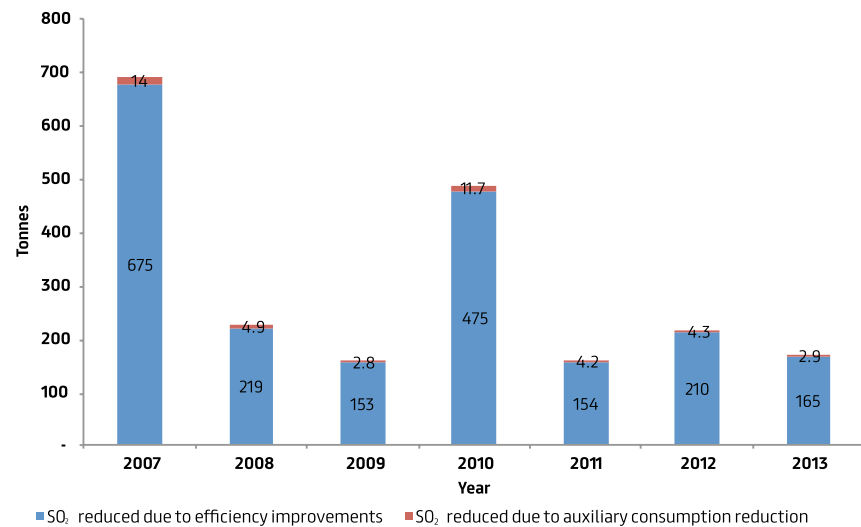
Air emissions have adverse effects on our local climate, ecosystems and air quality. In Dubai, regulations are in place to control nitrogen oxides (NOx) and sulphur dioxide (SO<sub>2</sub>) emissions. By expanding the use of clean energy sources and improving the efficiency of our operating systems, we have demonstrated significant reductions in SO<sub>2</sub> and NOx emissions from our plants.

In our Jebel Ali power station complex, a number of initiatives have been implemented to help reduce our transportation emissions such as providing mass transportation to employees staying in the city and in bachelor accommodations. Additionally, a number of tricycles (137), bicycles (508) and golf carts (28) are used to transport employees within the Jebel Ali power station complex.

Annual reduction in NOx air emissions with respect to 2006



Annual reduction in SO<sub>2</sub> air emission with respect to 2006



Our environmental management system requires that any identified oil or chemical spill is immediately investigated to find the root cause and expert consultation used for any remedial activity required.

Our wastewater discharges are also monitored. Read more about wastewater in the Water section of this report.

# MANAGING OUR WASTE

We aim to reduce the amount of solid and liquid waste by using resources efficiently and recycling or recovering where we can. In addition to reducing our environmental impact, reducing waste generates cost savings for our business. In 2013, we achieved AED 1.4 million from selling scrap waste materials from our Jebel Ali power station complex.

An example of the business benefits of waste management is evident in our efforts to recycle waste oils.

In the Jebel Ali power station complex, used lubricant, transformer and hydraulic oils are recycled for use in boiler furnaces when oil firing is required. Additionally, large amounts of insulation oil are used in distribution equipment for insulation and cooling. By using recycled oil we are able to significantly reduce our consumption of new oil and minimise waste (and the associated costs for waste disposal). In 2013, we have recovered 126,000 litres of oil for reuse. While closed loop gas analyzers at substations are used to reduce SF6 gas emissions.

Waste Figures from the Jebel Ali power station complex

| Waste figures                            | Unit                     | 2010      | 2011      | 2012      | 2013      |
|--|--------------------------|-----------|-----------|-----------|-----------|
| General waste sent to landfill           | Tonnes                   |           |           |           | 1,534     |
| Hazardous waste disposal                 | Tonnes                   | 25.4      | 37.2      | 49.2      | 57.9      |
| Wooden packaging reused                  | Cubic foot               | 5,939     | 4,580     | 5,250     | 5,958     |
| Waste water recovered                    | Million Imperial Gallons |           | 202       | 204       | 209       |
| Waste oil recovered for reuse            | Litres                   | 78,215    | 259,074   | 132,051   | 126,421   |
| Revenue from scrap/ waste materials sold | AED                      | 1,643,693 | 1,568,095 | 1,252,710 | 1,396,910 |



# ENVIRONMENTAL COMPLIANCE

DEWA complies with environmental regulations at the UAE federal level as well as by the Dubai Municipality. These regulations set standards for regulating aspects of health, safety, security and environmental quality and impose civil and criminal penalties for any violations.

In addition, we also comply with any special permit provisions where we operate in environmentally sensitive areas. During 2013, we have not been in violation of any environmental regulations nor have we received any complaints relating to environmental matters.

## EWS-WWF MARINE TURTLE CONSERVATION PROJECT



DEWA is helping to protect the endangered hawksbill turtle by sponsoring the Marine Turtle Conservation Project run by the Emirates Wild Society-World Wildlife Fund's (EWS-WWF). Our native hawksbill turtles are listed as an endangered species which require conservation plans to ensure their survival.

We sponsored eight of the 75 hawksbill turtles that the EWS-WWF team has fitted with wireless transmitters as part of the Great Gulf Turtle Race. This initiative uses satellite technology to track migration patterns and identify foraging grounds for post-nesting. Data and analysis from this project is shared with relevant authorities to guide effective conservation plans for this endangered species.

To raise awareness of the project, we invited UAE residents to vote for their favourite turtle in the virtual and symbolic Great Gulf Turtle Race. We are proud to maintain our relationship with EWS-WWF's so that we can help conserve our biodiversity and tackle our Ecological Footprint.

# OUR FUTURE COMMITMENTS

We are committed to continuously improving our environmental management performance by setting our business divisions challenging goals and targets.

| Issue  | Commitment  | Target   |
|--|---|--|
| Ecosystem, biodiversity & habitat protection | Continuously assess our operations for any negative effect that our power and water desalination plants may have on Dubai's environment | Develop biodiversity action plans at our key sites of operation  |
| Minimising emissions                         | Achieve continuous improvement in managing and minimising our emissions to our natural environment                                      | Ensure that all our operations are covered by our environmental management system which is certified to ISO 14001 standard |
| Managing our waste                           | Continue to seek opportunities to reuse and recycle waste products  | Continue to increase the proportion of recycled and reused waste compared to waste sent to landfill                        |
| Environmental compliance                     | Ensure that we operate in compliance with all relevant environmental regulation   | Ensure zero non-compliance fines   |

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## EMPLOYEES

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**98% OF EMPLOYEES**

WITH COMPLETED PERFORMANCE  
APPRAISALS IN 2013

**AWARDED BRITISH  
SAFETY COUNCIL  
SWORD OF HONOUR IN  
HEALTH AND SAFETY**

FOR THE SIXTH CONSECUTIVE YEAR

**77% DECREASE** IN ACCIDENT  
INCIDENT RATIO BETWEEN 2009-2013

### SECTION CONTENTS

- Our principles
- Our management approach
  - Happy and positive work environment
  - Employee health and safety
- Attracting and retaining a world-class workforce
- Promoting Emiratisation
- Our future commitments





# OUR PRINCIPLES

Our people are the foundation for our business. We firmly believe that we have a responsibility to provide a happy and positive work environment that supports our people in doing their jobs effectively and efficiently. Our leadership is committed to the development of those employees and has launched multiple Employee Relations Programs that enable staff to actively participate, to be heard and to be recognised for performance excellence.

Since 2009, we have achieved certification to the Social Accountability International SA8000 Standard, which is one of the world's first auditable social certification standards for decent workplaces based on conventions of the ILO, UN and national law. The standard helps guide our operations to protect and empower all personnel within DEWA's scope of control and influence. That includes our employees and the employees of our suppliers, sub-suppliers, contractors and sub-contractors.

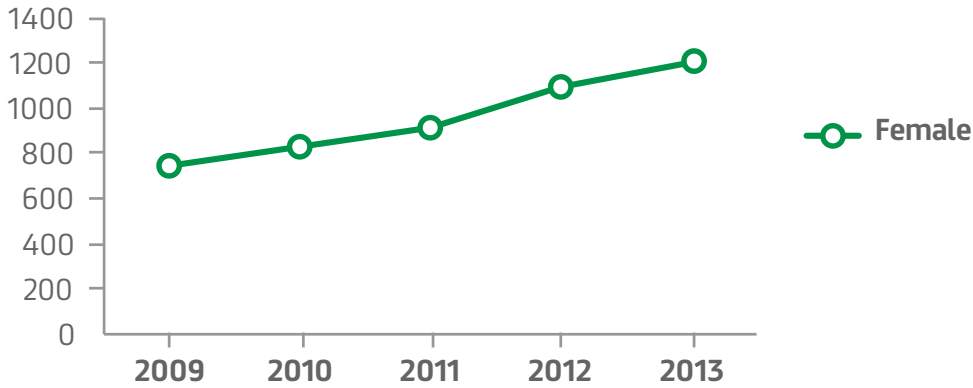


# OUR MANAGEMENT APPROACH

At DEWA, we continually strive to understand and respond to our employees' needs and expectations, which include staff welfare, reward, respect, security and transparency about pay increases and promotions as well as providing a safe and positive work environment. The key pillars of our approach to managing our workforce are:

| Issue  | Commitment  |
|--|---|
| Happy and positive work environment              | Providing a safe, productive, happy and positive working environment for our people, including both physical working conditions and employee well-being through rewards, employee engagement and support initiatives. |
| Employee health and safety                       | Putting employee health and safety first and foremost in our priorities by adopting international best-practice standards, reinforced by appropriate management systems and adequate training.                        |
| Attracting and retaining a world-class workforce | Making DEWA an attractive employer through reward programs and incentives, and retaining our employees by supporting their career development at DEWA.  |
| Promoting Emiratisation                          | Increasing the proportion of our workforce made up of UAE nationals at all levels, in support of Dubai's drive towards Emiratisation.   |

## Our Employees





# HAPPY AND POSITIVE WORK ENVIRONMENT

Ultimately, our success in providing a happy and positive working environment is reflected in our employee satisfaction survey results. We conduct an employee satisfaction survey annually to measure employees' overall satisfaction with respect to various dimensions of the working environment at DEWA. Our 2013 employee satisfaction rate was at 75% which we aim to raise to 79% by 2014 and to 82% by 2017.

## Physical working conditions

A key part of providing our people with a happy, secure, productive and positive environment is the physical working conditions. In planning our buildings, we have given particular attention to providing good and spacious employee working environments.

In our recently completed LEED Platinum certified Sustainable Building at Al Quoz, employees have the ability to adjust their own working environment through air conditioning and heat controls to optimise their comfort. There is also a green roof, which provides space

for a garden and small-scale food production but also provides our employees with recreational space. Gym facilities are also present in our offices in Al Quoz and Al Warsan.

If any of our staff have constructive ideas for improving the working environment and services at DEWA, we encourage them to contribute these to our TAWASOL Employee Suggestion Scheme so that they can be considered by DEWA management. A number of initiatives suggested by our employees have had an impact on our triple bottom line.



## Employee lifestyles

We also aim to create an environment that supports our employees' lifestyles. Part of this is achieved by encouraging gender diversity in our workforce. We have put the following initiatives in place for this purpose:

- **Women's Committee:** The Committee encourages women expanding their creative roles and supports women's insights into decision making to increase DEWA's female employee satisfaction.
- **DEWA Child Care Centres:** Our Child Care Centres, located in the Head Office, Al Quoz and Al Warsan were created to provide care during the working hours for up to 167 of our employees' children. This initiative has been an outstanding success in helping employees to balance family and work duties.



## Rewarding our employees

We recognise that making DEWA a workplace with world-class standards also requires us to consider how we reward our employees. Our Personnel Committee reviews employee performance appraisals, promotions, salary increments and other personnel matters to ensure that our employees are rewarded fairly and in line with their performance. Many of DEWA's divisions, regularly participate in studies for identifying possible improvements in employee compensation and benefits. Periodically, we review and analyse job roles, matching them with people that have the skills and academic qualifications to fill the requirements, to ensure that these are kept updated.

We offer our employees a range of additional benefits through initiatives such as:

- **TAKAFUL:** This fund is open only to DEWA employees and was launched in 2009 to provide financial support in case of emergencies.
- **Waffer Programme:** The programme provides competitive offers and discounts for DEWA staff for various shops, hotels, and other services.
- **Excellence Award & Recognition Programme:** The aims to appreciate and reward the employees (individual or groups) who have excelled in their achievements.

## TAKAFUL SOCIAL FUND

تكافل  
TAKAFUL

DEWA cares about its employees and we have taken steps to promote the responsibility of employees to support their colleagues financially. To achieve this, the Takaful Social Fund was launched in 2011 to support DEWA staff financially in case of emergencies and financial hardship. The Takaful fund improves employee welfare, maintains employee well-being and increases employee satisfaction with respect to their work environment.

DEWA contributes AED 250,000 annually and some DEWA staff have the option of contributing to this fund on a monthly basis. Since its launch, the programme has been successful in reaching out to support an increasing number of staff. In 2013, the fund supported 134 employees.



# EMPLOYEE HEALTH AND SAFETY

“Our newest achievement is a result of adopting best international standards in the field of health and safety, as part of our strategy to promote a culture of maintaining health and safety standards, and providing a healthy work environment for DEWA’s employees, contractors, and customers.”

**His Excellency Saeed Mohammed Al Tayer**  
Managing Director and Chief Executive Officer, DEWA

The health and safety of our people is our leading priority. We are committed to applying international best practice standards in relation to health and safety management and we strive for continuous performance improvement in this area.

Our management approach to the health and safety of employees, suppliers and contractors is enshrined in our policies and management systems.

- DEWA is ISO-9001, ISO-14001 and OHSAS-18001 certified enabling continuous improvement and management of our systems.
- DEWA has maintained the British Safety Council's Environment 5 star certification since 2011. Those that achieve the certification can then compete for the Globe of Honour award, which DEWA has been awarded for 2 consecutive years with a full mark score. We are proud to be the first utility in the MENA region to achieve this award. We have also been Awarded the British Safety Council's Sword of Honour in Health and Safety for the sixth consecutive year.
- We have a dedicated QHSE Approach governed by a series of assessments and we use Document & Controlled Procedures (IMSP01-16 & SP01-15) to ensure that we implement best practice OH&S standards. We use proactive monitoring such as inspections, surveys, surveillance, health screening and internal audits.



- We require all contractors and technicians to qualify for an Electrical Contractor's Competency Licence in order to install electrical connections in any dwelling or building in Dubai.
- We also maintain quality control procedures for the purchase of any equipment exceeding AED 1 million in value.
- We have a Risk Management Policy, in compliance with ISO-31000, which governs our activities and ensures that an appropriate assessment of risks (including health and safety risks) are considered prior to the approval of major activities, projects and changes to our business.
- We have an obligation to our contractors, sub-contractors and vendors, and we comply with OHSAS 18001 and 18002 to ensure that safety measures are observed. In addition to this, our dedicated SP06 Contractor Safe Working Procedure is also in place.

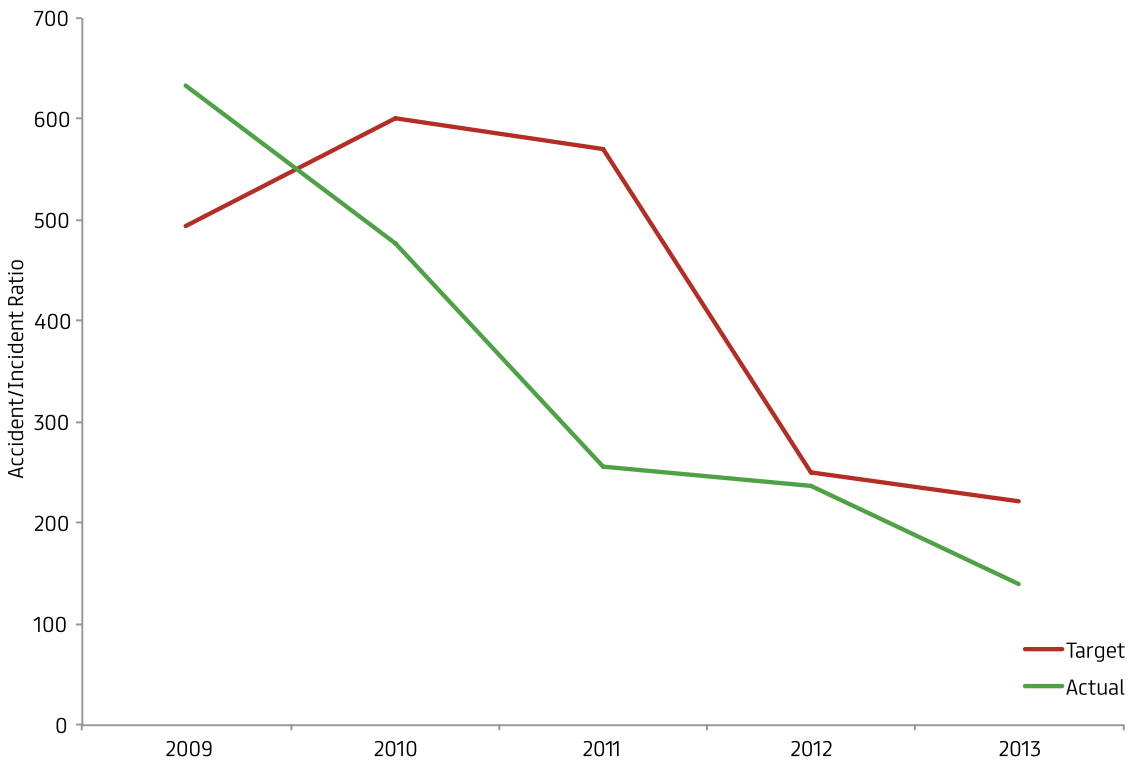
One of the best ways to ensure safety is to raise the safety awareness of our contractors. We launched a Health and Safety Week as part of DEWA's strategy to enhance HSE and sustainability standards. In addition our Health and Safety department organises a number of competitions for DEWA's employees and contractors. For instance, we have held a Contractors' Health & Safety Awareness Day for employees, contractors and consultants on an annual basis since 2011.

We regularly audit our operations to assess how well we are performing to health and safety requirements. This includes assessments conducted by our Internal Audit team, and also by independent external auditor (every nine months). Certification of our health and safety systems is re-verified once every three years.

To track our health and safety performance, we monitor indicators of safety at a strategic level and set ourselves targets to drive continuous improvement. One of the key indicators of our safety performance is the Accident/Incident Ratio, which we have successfully reduced by 77 % over the past 5 years.

## Accident/incident ratio (AIR)

(Number of RIDDOR Accidents x 100000 / Total number of staff)



Note: AIR is an annual total and excludes contractors, RIDDOR = Reportable Injuries, incidents and diseases

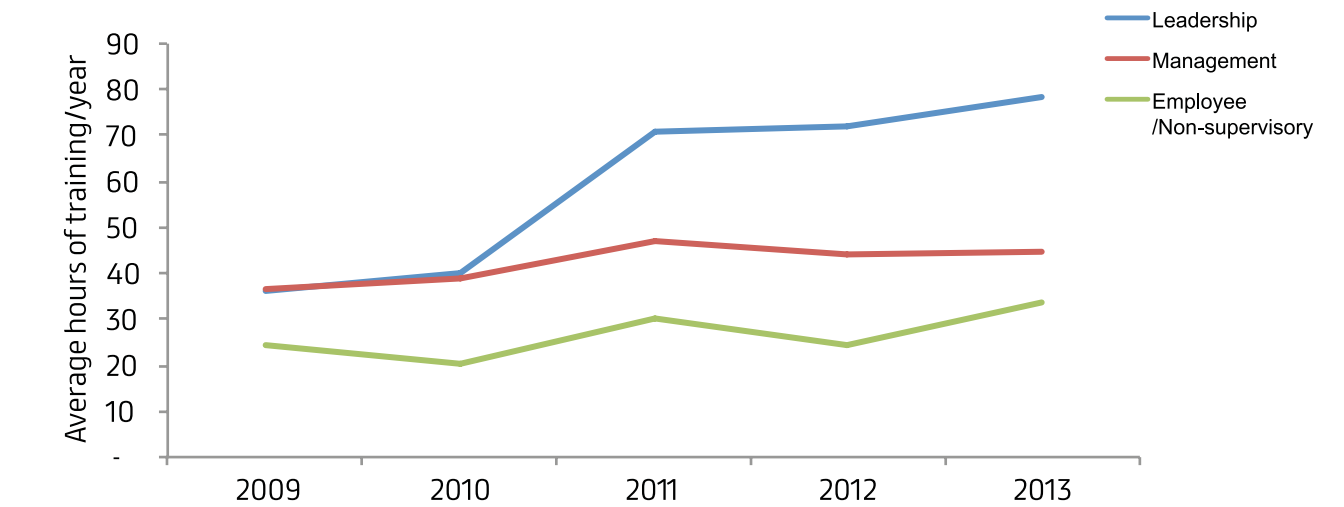
# ATTRACTING AND RETAINING A WORLD-CLASS WORKFORCE

At DEWA we provide all possible support to our employees to further improve their talents and skills, and strengthen social cohesion. One of the key ways in which we support our employees at all levels of the organisation is by providing training to continually enhance their skills. Over the last 5 years, we have achieved a 216% increase in average leadership training hours, a 123% increase in average manager training hours and a 137% increase in average non-supervisory employee training hours.

Our Business Support and Human Resources division runs a career development and succession planning programme. As part of this career path plans are jointly developed with support from DEWA for national employees at Grades 7-8 and expatriate employees at Grade 9 and above. This includes building individual improvement plans and preparing successors for 50 critical positions within our organisation. In 2013, 98% of employees completed performance appraisals.

Average training hours by grade

(Average hours of training per employee, 2009 to 2013)



Employee Turnover



# PROMOTING EMIRATISATION

The year 2013 was known as the ‘Year of Emiratisation’, and as such, DEWA had a strong focus on supporting government efforts to increase local employment as well as to train the next generation of professionals. DEWA is committed to increasing the proportion of staff who are UAE nationals and to develop their training and expertise. In 2013, UAE nationals held 81.8% of our top management and leadership positions, 40.01% of our middle management positions, and 31.04% of our non-supervisory positions within DEWA.

We strive to attract new and qualified UAE-national professionals and focus on strengthening their skills by providing them with scholarships and training courses at various universities, colleges and institutes around the world. In this way, we support the burgeoning demand in the educational sector, whilst also driving our own strategy and investing in our future workforce. For

instance, DEWA launched a scholarship programme in 2013, aimed at educating Emirati students on renewable energy. This programme complements the DEWA Academy, which aims to foster a new generation of Emiratis both academically and vocationally.

We have started a number of scholarship programmes for local high school students including offering scholarships for Bachelor Degrees in Electrical and Mechanical Engineering programmes to train the next generation of our workforce, particularly in relevant technical qualifications. In future years, DEWA also hopes to launch a programme offering scholarships for Bachelor degrees in renewable energy from any accredited foreign university. We offer a range of employee benefits that particularly appeal to UAE nationals to bolster our Emirati recruitment and retention rates.







## OUR FUTURE COMMITMENTS

In 2014, we have ambitious plans to further improve employee well-being, safety and satisfaction. Some of our key initiatives we have planned for 2014 include the following:

| Issue                      | Commitment  |
|----------------------------|---|
| Employee satisfaction      | We plan to further strengthen our human resources processes, policies and procedures and empower our HR staff by further developing their skills to support the wider business in building capacity and capabilities.   |
| Employee career growth     | We aim to build a clearer understanding amongst our workforce of how career planning and promotions are related to capability, performance and collaboration. We hope that this will encourage our employees to collaborate, show enthusiasm and inspire each other to create a positive working environment. |
| Employee retention         | Our medium-term target for employee turnover is 2.99% by 2017, and we are well on our way to achieving this having achieved a low turnover of 2.42% this year. We will focus on maintaining our strong performance in this area.  |
| Employee health and safety | We are dedicated to employee and contractor health and safety and will report increasing amounts of information about QHSE performance in upcoming Sustainability Reports   |



# SUPPLIERS

## GREEN PROCUREMENT PROGRAMME AND SA8000 CERTIFIED:

DEWA HAS BEGUN TO INTEGRATE SUSTAINABILITY CRITERIA INTO ITS PROCUREMENT DECISIONS

**78.3%** OF SUPPLIERS WERE “VERY SATISFIED” WITH THEIR RELATIONSHIP WITH DEWA

WE HAVE LAUNCHED OUR NEW

## SUPPLIER RELATIONSHIP MANAGEMENT SYSTEM

TO INCREASE THE QUALITY OF INTERACTION WITH OUR SUPPLIERS

## SECTION CONTENTS

- Our principles
- Our management approach
  - Supplier dialogue and satisfaction
  - Working with local suppliers and partners
- Embedding sustainability values throughout our supply chain
- Ensuring our suppliers adhere to our labour rights standards
- Our future commitments





# OUR PRINCIPLES

DEWA is committed to developing long term, mutually beneficial relationships with our suppliers. We are partnering with our suppliers to develop policies and programs to achieve this objective.

Whilst managing the sustainability performance of our own operations is of great importance, there are significant opportunities for us to improve our overall sustainability impact through our supply chain. Simply by engaging in business activity with local suppliers, we contribute to the economic development of Dubai

(See the Economic Development section). Through improvements in our procurement process, we are working to ensure that we distribute our contracts with suppliers fairly and equitably.

In addition, we strive to enable suppliers to improve their sustainability performance by managing their impact on the environment and society. Our new supplier relationship management approach will be central to build strong relationships and to support them on their own sustainability journey.

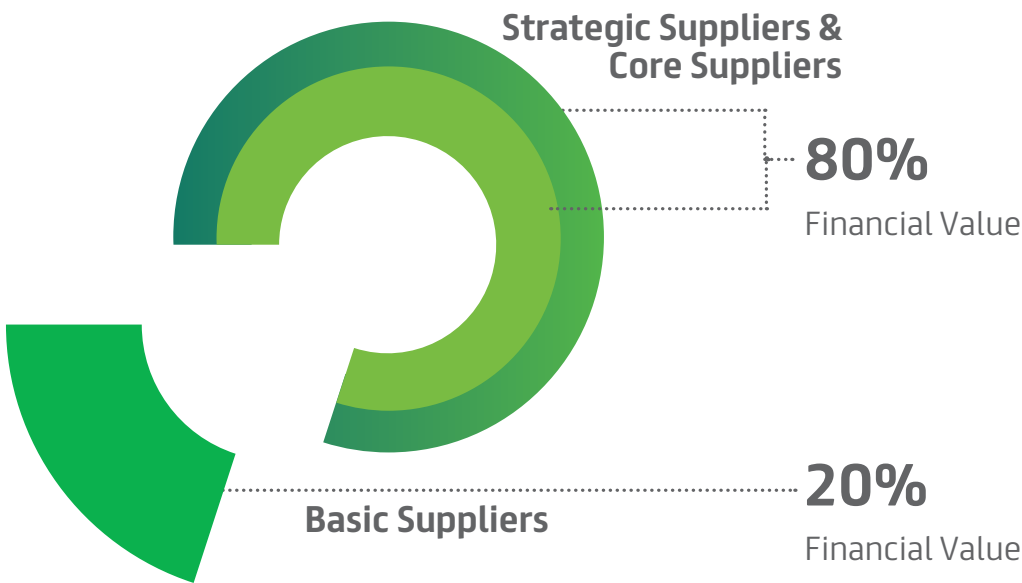


# OUR MANAGEMENT APPROACH

DEWA has implemented a Supplier Relationship Management (SRM) system to centralise relationship management with our suppliers. Our key SRM objectives include:

- Establish long term relationships with suppliers
- Develop strong relationships that deliver a profitable outcome for both parties
- Strengthen the quality of service and value to DEWA's supply chain

We work with many different types of suppliers, but these can be classified in three broad categories: 'strategic', 'core' and 'basic'. These categories help us to articulate the expectations we have of individual suppliers and key supplier segments. During 2013, we worked together with a total of 1,484 suppliers, of which 57 were strategic suppliers, 424 were core suppliers and 1,003 were basic suppliers.



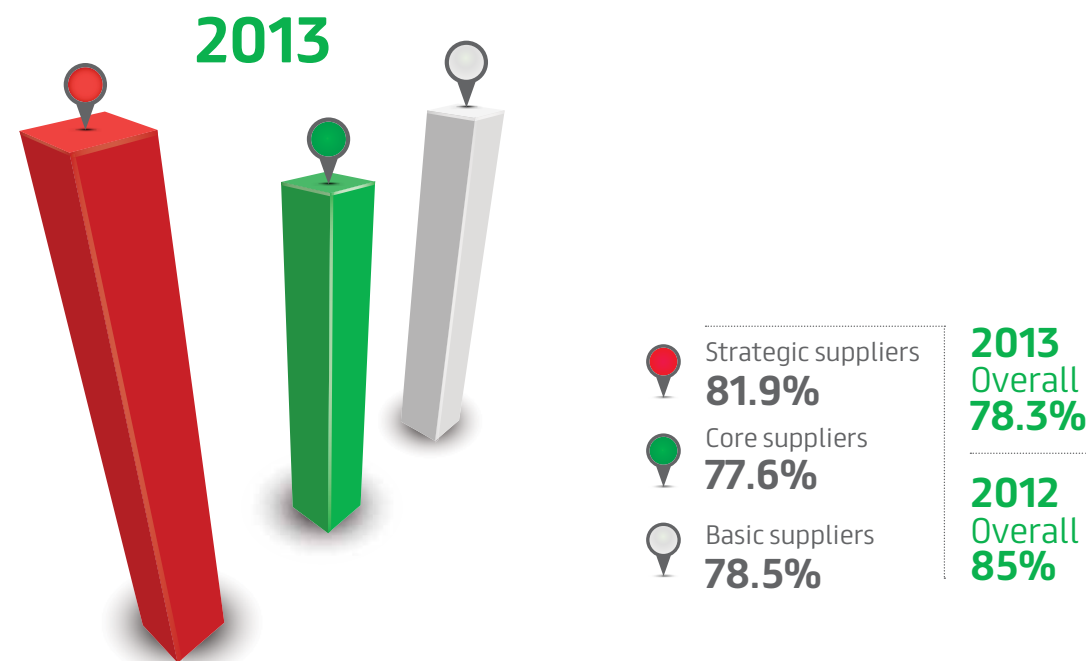
Our approach to managing our suppliers in a sustainable way is summarised below:

|  |  |
|--|--|
| Supplier dialogue and satisfaction                           | Listening and responding to our suppliers' feedback<br>Communicating DEWA's procurement processes with our suppliers |
| Working with local suppliers and partners                    | Supporting local suppliers through our Local Purchasing department   |
| Embedding sustainability values throughout our supply chain  | Launching DEWA's Green Procurement Programme<br>Raising awareness of the Programme with our stakeholders             |
| Ensuring our suppliers adhere to our labour rights standards | Working to become SA8000 certified<br>Ensuring our supply chain is free from forced labour                           |

# SUPPLIER DIALOGUE AND SATISFACTION

DEWA strives to have a robust engagement process with all of its stakeholders, including its suppliers. We provide multiple channels for communication and feedback, including through an online enquiry portal. In addition to these initiatives, we periodically conduct supplier satisfaction surveys to better understand our supplier's needs and expectations.

Supplier satisfaction ratings, 2013



In 2013, 78.3% of suppliers were very satisfied with their relationship with DEWA, but we recognise that the rate was at higher at 85% in 2012. Our survey indicates that suppliers expect greater responsiveness and faster turnaround of approvals and payments for contracts. We hope the new SRM will help us strive for excellence in this area. To counter this trend, we will work closely with our suppliers to understand their expectations and identify areas for improvement.

We have already started to increase effectiveness of our engagement with suppliers. During 2013, we held multiple events and developed processes to work together more effectively. One key event was the Water, Energy, Technology Exhibition (WETEX) 2013, where the SRM team held meetings with suppliers and stakeholders.



# WORKING WITH LOCAL SUPPLIERS AND PARTNERS

DEWA has established a Local Purchase Committee that helps define rules, terms and conditions for the purchase of products and services. This committee's role is to help increase the proportion of local product or service purchases. To illustrate the scale, in 2013 we conducted 7,424 local transactions.

## Embedding sustainability values throughout our supply chain

We understand that our overall environmental and social impacts extend beyond our own direct operations. As part of our commitment to sustainability, we launched the Green Procurement Programme at WETEX 2013 and are in the process of rolling this out throughout our supply chain.

The programme aims to assess the environmental consequences of the products purchased by DEWA at the various stages of the product's lifecycle to help us avoid

selecting products with adverse environmental impacts. Contracts are awarded based on a range of conventional criteria, but suppliers with certified environmental management systems have an additional advantage. Additionally, we have developed criteria to gauge whether certain products or services can be considered 'green' in order to promote the purchase of these products. For example, we are interested if products reduce energy, contain recycled materials, are less toxic, can help conserve water or address social impacts.

## DEWA's Green Procurement Programme

The Green Procurement Programme has already led to positive change in the products and services that DEWA purchases. For example, we have recently purchased the following materials:

|            |   |
|------------|---|
| Insulation | Thermally insulated blocks for external walls and polyurethane insulation layers to roofs   |
| Lighting   | Replacement of incandescent lamps with compact florescent lamps, external lighting by solar power and LEDs and motion and occupancy sensors to control lighting |
| Water      | Waterless urinals and low flow water mixer taps and showers   |

We are now preparing to integrate the sustainability criteria into the procurement decisions being made by each of our divisions. However, we recognise that sustainability is a journey and that integration of green procurement within our own business and our suppliers will take time. That said, we will continue to raise awareness about green products and services which we believe will help us to progress on the journey towards achieving a more sustainable supply chain.





# ENSURING OUR SUPPLIERS ADHERE TO OUR LABOUR STANDARDS

We are committed to business practices that adhere to international standards for labour rights. Since 2009, DEWA has been certified to SA8000 (See the Employee section). We have set up an internal network of SA8000 representatives to ensure compliance in this area. This process includes site visits and awareness raising seminars for our staff. In addition, our internal audit department performs audits on a regular basis to ensure we perform well against the SA8000 requirements.

We are extending this commitment to good labour standards to our supply chain, including our contractors, subcontractors and suppliers. We are in the process of assessing the risks associated with issues such as forced labour and will develop responses accordingly. At this moment, nothing has come to our attention that indicates such issues are prevalent among our direct suppliers.

## OUR FUTURE COMMITMENTS

Developing a sustainable and efficient supply chain is an ongoing process. We will continue our working relationship with suppliers, and strategies to develop and implement green procurement frameworks throughout the organisation. As part of our overall drive to be a sustainable world-class utility, we will increase engagement with suppliers to increase satisfaction rates and to deliver on our objective of fostering strong, long term and mutually beneficial relationships with our suppliers.



Under the Patronage of His Highness Sheikh Hamdan bin Rashid Al Maktoum, Deputy Ruler of Dubai, Finance Minister of the UAE and President of DEWA.

As part of Dubai Electricity and Water Authority's Green Week Initiative

**WETEX 2015**  
WATER, ENERGY, TECHNOLOGY AND ENVIRONMENT EXHIBITION

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# STAKEHOLDERS AND COMMUNITY

## KEY STAKEHOLDER GROUPS ENGAGED

THROUGH SUSTAINABILITY FOCUSED WORKSHOPS PROVIDING VALUABLE INPUT INTO DEWA'S SUSTAINABILITY PRIORITIES

DEWA EMPLOYEES CONTRIBUTED  
**32,413** VOLUNTEERING HOURS

**65** COMMUNITY INITIATIVES  
REACHING APPROXIMATELY  
**201,000** PARTICIPANTS

## SECTION CONTENTS

- Our principles
- Our management approach
  - Engaging with our stakeholders
  - Collaborating with partners and investing in solutions
  - Giving back to the community
- Our future commitments



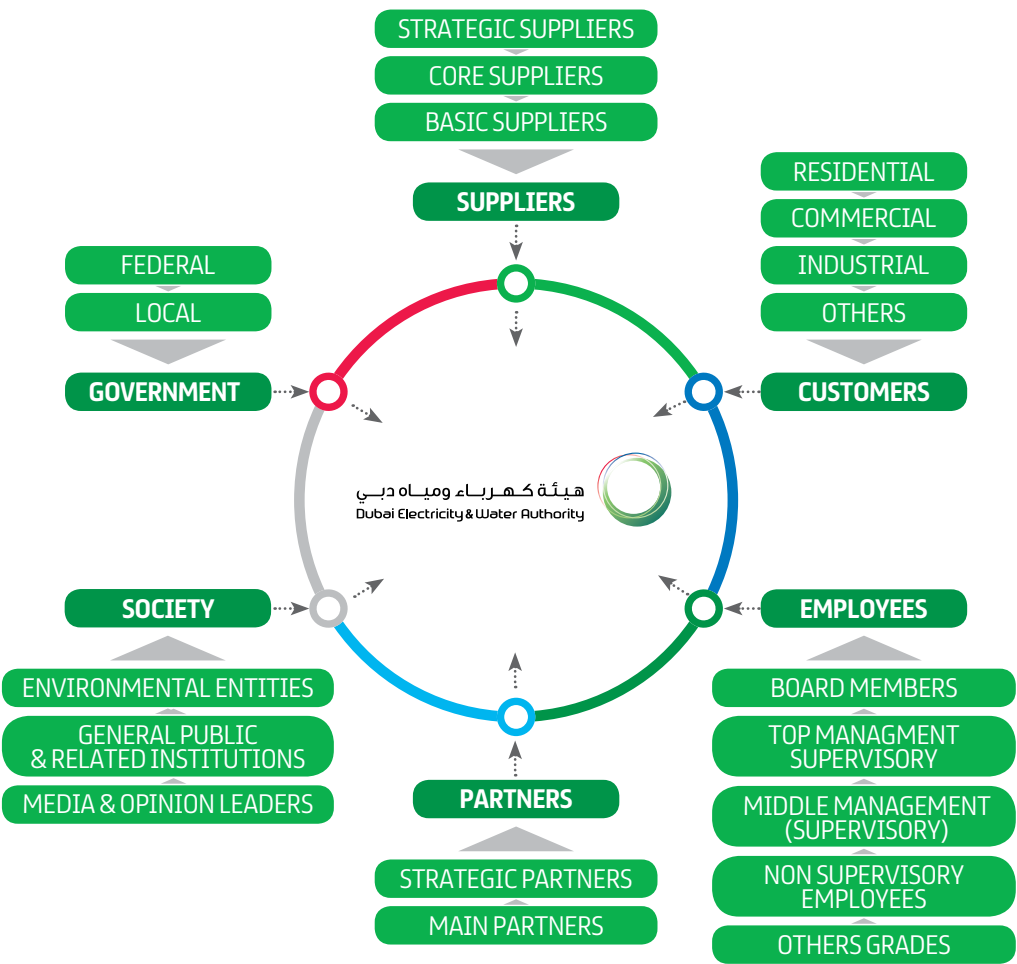


# OUR PRINCIPLES

Our business is answerable to Dubai’s residents, the communities we work in, our own employees and those we work with including our government, suppliers and partners. Our stakeholders are identified as those categories of individuals, groups and institutions whose contribution is required for DEWA to carry out its mission. As such, we place our stakeholders needs and expectations at the core of our strategy to provide

reliable electricity and water infrastructure needed to sustain Dubai’s economic growth.

To gauge our stakeholder expectations, we aim to continuously engage a broad set of stakeholder representatives from government, customers, employees, business partners and community groups, as can be seen in our stakeholder map.



Stakeholder Engagement Workshop held at DEWA on 26 September 2013 with representatives from all 6 DEWA stakeholder groups.

# OUR MANAGEMENT APPROACH

It is important that we effectively engage with all our stakeholders so that we can understand what is expected from us on important issues such as sustainable development. To achieve this we have established a range of engagement channels including satisfaction surveys and road-shows, joint ventures and collaboration

with government authorities on regulatory priorities. Furthermore, we employ a variety of different engagement methods designed for specific purposes and desired outcomes. The table below shows examples of some of the methods DEWA uses ranging from sharing information to directly involving and empowering stakeholders.

## DEWA's Stakeholder Engagement Activities

|  |  |
|--|--|
| <b>Inform</b><br>(One way process of providing information to stakeholder) <ul style="list-style-type: none"> <li>Awareness sessions</li> <li>Marketing campaigns</li> <li>Media events</li> <li>Student visits</li> <li>Incentive programmes</li> <li>Road shows</li> <li>Corporate strategy presentation sessions</li> </ul> | <b>Consult</b><br>(Stakeholder asking questions and organisation providing answers) <ul style="list-style-type: none"> <li>Satisfaction Surveys for all stakeholder groups</li> <li>Written and verbal communications</li> <li>Topic-specific surveys</li> <li>Direct customer feedback</li> <li>Supervisor interaction</li> </ul> |
| <b>Involve</b><br>(Two-way engagement & learning but stakeholders act independently) <ul style="list-style-type: none"> <li>One-on-one meetings</li> <li>Supplier engagement</li> <li>Seminars</li> <li>Various programs</li> <li>Customer suggestion schemes</li> <li>Mystery shoppers</li> </ul>                             | <b>Collaborate</b><br>(Joint learning, decision making and actions) <ul style="list-style-type: none"> <li>Joint ventures</li> <li>Public Private Partnerships</li> </ul>  |
| <b>Empower</b><br>(Stakeholders play a role in governance) <ul style="list-style-type: none"> <li>Actively supporting government policy &amp; regulation</li> </ul>  |  |

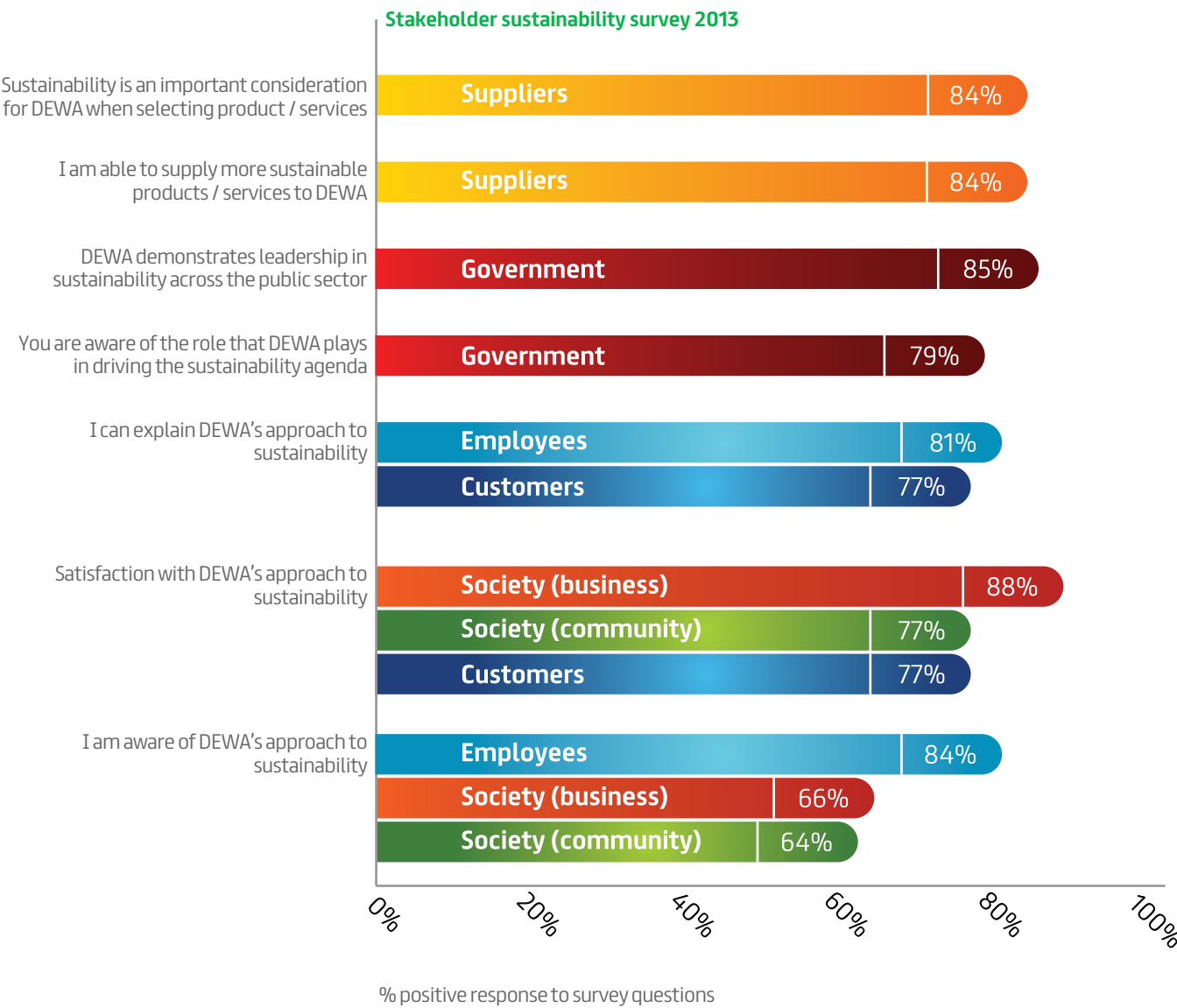
Our key strategic objectives relating to our stakeholders are detailed below:

|   |   |
|---|---|
| <b>Engaging with our stakeholders</b>                         | <ul style="list-style-type: none"> <li>Hosting stakeholder engagement workshop on sustainability for our key stakeholder groups</li> <li>Defining our stakeholder value proposition for each group</li> <li>Responding to stakeholders' needs and expectations</li> </ul> |
| <b>Collaborating with partners and investing in solutions</b> | <ul style="list-style-type: none"> <li>Seeking new opportunities to collaborate with key partners to advance sustainable development</li> </ul>   |
| <b>Giving back to the community</b>                           | <ul style="list-style-type: none"> <li>Establishing community initiatives that benefit Dubai and the UAE</li> </ul>   |

# ENGAGING WITH OUR STAKEHOLDERS

We conduct annual satisfaction surveys for each of our stakeholder groups to assess our stakeholders' expectations of DEWA across a range of issues relevant to each group. In 2013 we included for the first time in these surveys specific questions related to stakeholder awareness of our efforts

and achievements in sustainability. The results from our 2013 stakeholder satisfaction surveys show that, across all of our stakeholder groups, the majority of respondents had a high awareness of DEWA's approach to sustainability, and were broadly satisfied with our performance.



## DEWA's stakeholder engagement workshop on sustainability.

In 2013, we also hosted our first stakeholder engagement workshop on sustainability to further the dialogue on sustainability with stakeholders. The findings from the workshop have provided us with deep insight into what our stakeholders' value and which sustainability issues are important. Some of the key topics of concern that have been raised through stakeholder engagement include the following:

- **Data availability:** All stakeholders identified the need for energy and environmental performance statistics. As a first step, DEWA's sustainability report aims to provide some of this key information to stakeholders.
- **Co-operation across UAE:** Stakeholders voiced the value of collaboration between the federal and local levels, with increased attention being dedicated to communication. DEWA is working with numerous government entities to increase its role in sustainability-related communication.
- **Sustainability leadership:** All stakeholder groups look to DEWA for support and leadership in sustainability. DEWA is on a path to become a sustainable world-class utility, and as a part of this effort will engage with stakeholders to determine how best to support and demonstrate leadership on sustainability.

## Stakeholder expectations and value proposition

The messages which we receive from our stakeholders we use to guide and inform the development of our strategy objectives. One of the ways in which we have done this is to explicitly identify the unique value-proposition that DEWA aspires to offer its stakeholder groups.

| Stakeholder group | Stakeholder value proposition                             | Stakeholder expectations  |
|-------------------|---|---|
| Customers         | Enable our customers to live more sustainably             | Transparency and communication for usage and charges is paramount<br>Sustainability leadership, sustainability incentives   |
| Government        | Set the benchmark for government excellence               | Ensure maximum alignment with government strategy   |
| Employees         | To be an employer of choice                               | Career progression<br>Staff development and investing in training<br>Transparency about pay increase and promotion  |
| Partners          | Collaborate to achieve mutual benefits                    | Continuous and systematic dialogue and engagement<br>MOUs to collaborate on issues  |
| Society           | Build a strong and sustainable foundation for our society | Raising awareness, education and leadership on sustainability<br>Commitment to sustainability, transparency and effective communication                           |
| Suppliers         | Treat our suppliers fairly                                | Clearer and more sustainable procurement guidelines, communicated effectively<br>Decisions based on cost and quality: life cycle cost and sustainability benefits |



# COLLABORATING WITH PARTNERS AND INVESTING IN SOLUTIONS

The challenges we face to ensure sustainable development can only be addressed if we collaborate and invest with key partners who share our vision for a sustainable future. At DEWA, we pride ourselves in our efforts to seek and initiate partnership and joint investment opportunities which produce truly innovative initiatives to further advance our sustainability agenda.

Our partnership with Emirates Aluminium (EMAL) is a perfect example of how industry can collaborate to share resources thereby reducing cost and environmental impacts. DEWA and EMAL are the two entities in the Emirate that produce water and power on a large scale. We have developed a partnership which is aimed at maintaining a secure and stable network between us to ensure a safe, continuous and effective power supply in normal and emergency conditions. We have also managed to produce energy efficiency synergies between the two entities resulting in cumulative financial savings of AED 169m up to 2013.

Another example of a partnership aimed to support sustainable development is our venture, Etihad ESCO, established in 2013 to make Dubai’s built environment a leading example of energy efficiency for the region and the world. As a Super ESCO (Energy Service Company), it enables the energy performance contracting market in Dubai by developing energy efficiency projects targeting more than 30,000 buildings. Etihad ESCO aims to jump-start the creation of viable performance contracting market for energy service companies by executing building retrofits, increasing penetration of district cooling, building capacity of local ESCOs for private sector and facilitating access to project finance.

The Dubai ESCOs market will provide new business opportunities for joint ventures, international partnerships as well as engage UAE national entrepreneurs through a diversified supply chain from financial institutions, technology providers and equipment manufacturers to service providers across the project development, management and reporting stages.



# GIVING BACK TO THE COMMUNITY

At DEWA, we understand that responsibility towards the wider society and communities in Dubai is essential. Our Corporate Social Responsibility (CSR) Programme coordinates a network of 28 divisional representatives who are responsible for coordinating our social and community initiatives. We are proud to announce that we have delivered 65 community initiatives in 2013, engaging approximately 201,000 participants who have collectively given 32,413 volunteer hours. Initiatives range from local community development programs such as awareness programs in schools, to blood-donation drives.

## OUR FUTURE COMMITMENTS

We intend to further strengthen our stakeholder engagement framework by adopting the AA1000 Stakeholder Engagement Standard, a best practice standard in stakeholder engagement. This will help us to deliver the following goals.

| Issue  | Commitment   |
|--|--|
| Engaging with our stakeholders                         | We will further strengthen our stakeholder engagement processes to capture and reflect their expectations in the development of our strategy |
| Collaborating with partners and investing in solutions | Continue to identify partnerships to deliver on our strategic objectives   |
| Giving back to the community                           | We will leverage our core skills to lead by example and raise awareness about sustainability in our communities                              |



# GOVERNANCE AND ETHICS

---

NO REPORTED BREACHES  
OF OUR CODE OF CONDUCT IN 2013

WE HAVE RECEIVED NO  
REGULATORY FINES OR  
WARNINGS IN 2013

WE HAVE INITIATED A PROCESS OF FULLY  
EMBEDDING SUSTAINABILITY  
RESPONSIBILITIES  
INTO OUR CORPORATE GOVERNANCE  
STRUCTURE

## SECTION CONTENTS

- Our principles
- Our management approach
  - Corporate values and responsible behaviour
  - Our corporate governance structure
- Our relationship with the Dubai Government
- Internal control
- Risk management
- Our future commitments





# OUR PRINCIPLES

We are dedicated to acting in an ethical, transparent and accountable way in everything we do. To ensure this, we aspire to world-class standards of corporate governance and decision making. Every employee at DEWA is aware of the personal responsibility each of us has and we encourage all our staff to make decisions in an ethical manner. Professional behaviour is encouraged and supported by robust formal mechanisms to ensure we always live up to this promise.

# OUR MANAGEMENT APPROACH

We have created a corporate governance structure that aims to ensure decisions are made in a transparent way and with the involvement of the right individuals. Our corporate governance structure is supported by robust systems of internal control, risk management as well as mechanisms to encourage responsible behaviour by our staff.

We have a Code of Conduct that sets out how we expect our top management, senior management and employees to behave. Our Code of Conduct reflects our corporate values and is clearly communicated to all staff. Furthermore, we have several mechanisms in place to ensure employees put this into practice.

In 2008, we created a Corporate Governance manual which sets forth our corporate governance standards. The manual provides a set of procedures, principles and standards in relation to matters such as DEWA’s corporate structure, accountability and delegation of authority, internal audit, and establishment of management committees, risk management, internal and external reporting, social responsibility and retention of records. The manual also incorporates policies and procedures to protect against unlawful practice, including the acceptance of gifts and bribes, and enforces strict compliance of all employees.

The following table outlines the key components of our corporate governance activity.:

|  |  |
|--|--|
| Corporate values and responsible behaviour | Our Code of Conduct<br>Engagement and compliance   |
| Our corporate governance structure         | Our Board of Directors and subcommittees<br>Our Management team and committees<br>Governance for sustainability: the Sustainability Leading Team |
| Our relationship with the Dubai Government | Our relationship with the Dubai Government as owner, regulator, customer and supplier  |
| Internal control                           | Our approach to internal control and audit   |
| Risk management                            | Our approach to risk management  |

# CORPORATE VALUES AND RESPONSIBLE BEHAVIOUR

We have defined corporate values that represent what we stand for and how we interact among ourselves and with others. These corporate values are reflected in our Code of Conduct, which is shared with staff along with their staff handbook upon joining and is also accessible through our internal portal.

The importance of applying our values in practice is frequently emphasised by senior management as we

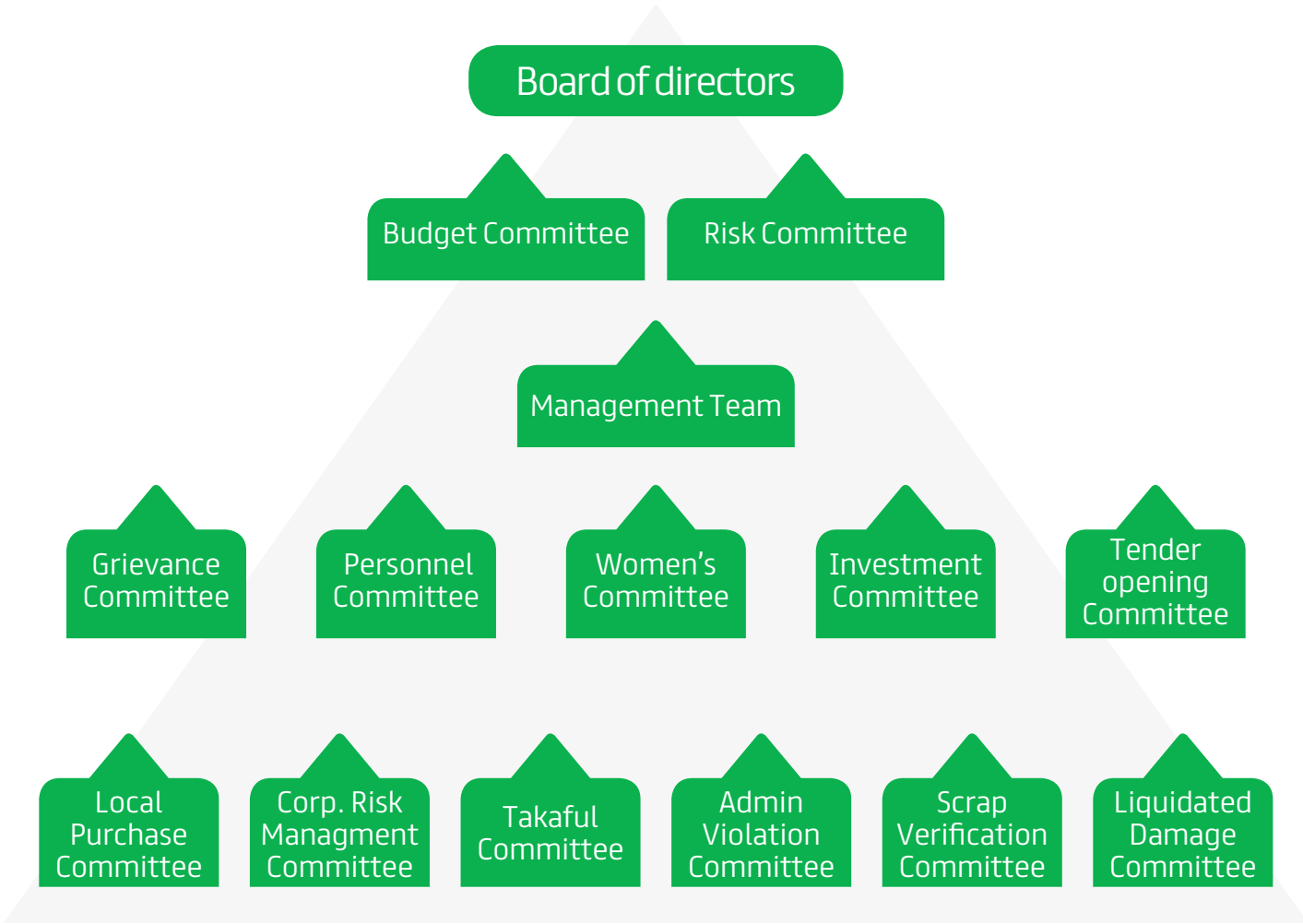
firmly believe in leading by example. This informal way of encouraging staff to behave professionally is further supported by formal communications and feedback systems. These enable our people to voice their opinions and provide feedback related to breaches of the Code of Conduct, the work environment and customer service, among others. No breaches of our Code of Conduct were reported over the course of 2013 and DEWA has received no regulatory fines or warnings.

### Our Corporate Values

|                                 |  |
|---------------------------------|--|
| Integrity                       | Integrity is the foundation of our business. We are committed to the highest standards of business and work ethics, complying with all applicable laws, in all our communications and actions.   |
| Fairness                        | We treat our stakeholders impartially, honestly, with dignity and respect.   |
| Transparency                    | We conduct our business with openness and transparency. We recognise our stakeholders' right for access to relevant information.   |
| Teamwork                        | We share our resources and skills, exchange knowledge and expertise, and we promote cooperative efforts that create synergies within teamwork in a workplace that enables people to get involved in making decisions that advance our corporate objectives.                                  |
| Industry leadership             | We seek to be at the cutting edge with our key processes. We apply the world class technology to our products and services, and we strive for operational excellence to provide objective and innovative solutions to critical problems.   |
| Professionalism                 | We execute our work with the highest standards of competence, expertise and thoroughness. We follow our organisation's rules, procedures, and policies, and we develop positive relationships to deliver quality products and services and satisfy our stakeholders.                         |
| Corporate social responsibility | We take our responsibility towards society seriously. We contribute to the communities in which we live and work, through public involvement and respect for society and the environment.  |
| Customer focus                  | We anticipate our customers' needs and we seek to exceed their expectations through our commitment to continuous improvement in products and services quality. We constantly focus on customer satisfaction.   |
| Sustainability                  | We continuously strive in an economic and efficient way in all our operations to effectively preserve the ecosystem, natural resources and environment of Dubai, promote conservation of electricity and water and care for our customers and society, both now and for generations to come. |

# OUR CORPORATE GOVERNANCE STRUCTURE

DEWA'S GOVERNANCE STRUCTURE:  
Board of Directors, Management team and associated subcommittees





# BOARD OF DIRECTORS

Our organisation’s most senior body is the Board of Directors. The fundamental roles of the Board are to ratify DEWA’s annual budget, approve electricity and water supply services and authorise and enter into agreements with external parties. The Board furthermore approves administrative, financial and technical affairs and issues governing regulations. As the Dubai Government is DEWA’s sole owner, the Board

and the Managing Director & CEO are appointed directly by government decree. The current Board was appointed in 2012 and consists of 9 members. Matar Humaid Al Tayer currently serves as Chairman of the Board and has done so since 2004. Saeed Mohammed Ahmad Al Tayer is DEWA’s Managing Director & Chief Executive Officer and is a member of the Board as well.

Current Members of DEWA’s Board of Directors:

|                                      |                       |
|--------------------------------------|-----------------------|
| Matar Humaid Al Tayer                | Chairman of the Board |
| Saeed Mohammed Ahmad Al Tayer        | Member                |
| Hilal Khalfan Bin Dhaher             | Member                |
| Abdulla Al Sayed Mohammad Al Hashemi | Member                |
| Khalfan Ahmad Harib                  | Member                |
| Majid Hamad Al Shamsi                | Member                |
| Obeid Saeed Bin Meshar               | Member                |
| Saeed Mohammad Al Sharid             | Member                |
| Nabil Abdul Rahman Arif              | Member                |

Beneath the Board of Directors there are a number of subcommittees and management teams govern the way our business operates.

- **Subcommittees of the Board of Directors:** The current Board has two subcommittees. The first is the Budget Committee, which is responsible for reviewing and approving DEWA’s annual budget and the remuneration of DEWA’s staff. The second committee of the Board is the Risk Committee, responsible for reviewing and approving DEWA’s risk management processes and reviewing any risks that are escalated to it.
- **Senior management: DEWA’s Management team:** The daily running of DEWA is the responsibility of the Management team, working closely with DEWA’s divisions to set strategy and monitor performance. The Management team is responsible for ensuring sustainability is properly managed at DEWA.
- **Management subcommittees:** The Management team is supported in its activities by a range of other committees, which consist of either Management team members or other individuals from DEWA’s divisions. There are 11 Management committees in DEWA, which act as subcommittees of the Management team.
- **Other committees:** To foster the exchange of knowledge and more effectively manage the organisation, we have created a number of other committees that join people from across the business. These committees discuss issues such as land management, resource optimisation and procurement.

Sustainability governance

In 2013, we created a cross divisional committee to address sustainability. The Sustainability Leading Team (SLT) is composed of representatives from each of DEWA’s divisions. The SLT has played a pivotal role in creating an understanding of the implications of sustainability for DEWA as a whole, and the respective roles of each of the divisions in responding to the needs that arise out of this.

The SLT is chaired by the Strategy & Business Development division. Its members oversee DEWA’s current efforts with regards to embedding sustainability into our business. They act as champions in their respective divisions, by engaging with colleagues and setting up division-specific sustainability action plans and initiatives.

The team is supported by a dedicated Climate Change and Sustainability (CC&S) section. This section works alongside a number of other teams that tackle sustainability-related issues, such as the risk management, HSE and CSR teams. Some of the CC&S section’s key responsibilities include the coordination of all sustainability efforts across DEWA’s divisions, stakeholder engagement and external reporting.





# OUR RELATIONSHIP WITH THE DUBAI GOVERNMENT

We have close relations with the Dubai Government in a number of ways: we are an independent company wholly owned by the government, which also acts as DEWA's regulator, customer and supplier and has granted DEWA land on which to build its infrastructure.

**Regulator:** DEWA's MD & CEO currently serves as the Vice Chairman of the Dubai Supreme Council of Energy, which was created to regulate the energy and water sector and is responsible for executing the Dubai Integrated Energy Strategy 2030. The Dubai Supreme Council of Energy oversees all public and private sector entities that are involved in the generation, transmission or distribution of electricity, water, oil, gas and district cooling. DEWA also engages with the government in other areas such as infrastructure regulation, environmental regulation and financial regulation.

**Customer:** The Dubai Government, including all ministries and government-owned enterprises, is an important

customer of DEWA. The government is charged the same tariff rates for electricity and water as other customers. Furthermore, the government issues credit notes to DEWA for those residential invoices that were not paid to ensure access to basic services for all Dubai residents.

**Natural gas supplier:** The supply of natural gas in Dubai is arranged through the Dubai Supply Authority (DUSUP). DUSUP enters into gas purchase agreements with natural gas suppliers and transports and sells this on to natural gas customers in Dubai. This arrangement is mandated by the government and DEWA is not allowed to procure natural gas through other means. Together with DUBAL we are DUSUP's largest natural gas customers.

## Internal control

We have an internal audit function whose role is to monitor our reporting and control systems and report upward to senior management on their findings relating to all layers of the organisation. The audit team provides independent and objective assessments of our system of internal controls and advises on improvements. An important element of this is the constant benchmarking of corporate governance practices against other organisations.

Audits are carried out on a regular basis across all areas of DEWA's operations. The team has unrestricted access to information in DEWA's departments. Internal audits are highly prioritised by DEWA, and all departments are asked to have back-up staff available to swiftly respond to requests from the audit team.

## Risk management

The Board holds ultimate oversight over risk management, and is responsible for setting DEWA's risk appetite and reviewing material risks that are escalated by senior management. We have a well-structured approach to enterprise risk management, supported by the Enterprise Risk Management Committee, and dedicated staff across the organisation. All staff in DEWA receive appropriate training and are actively encouraged to ensure key risks are identified, recorded and managed in accordance with clear risk management policy and procedures.

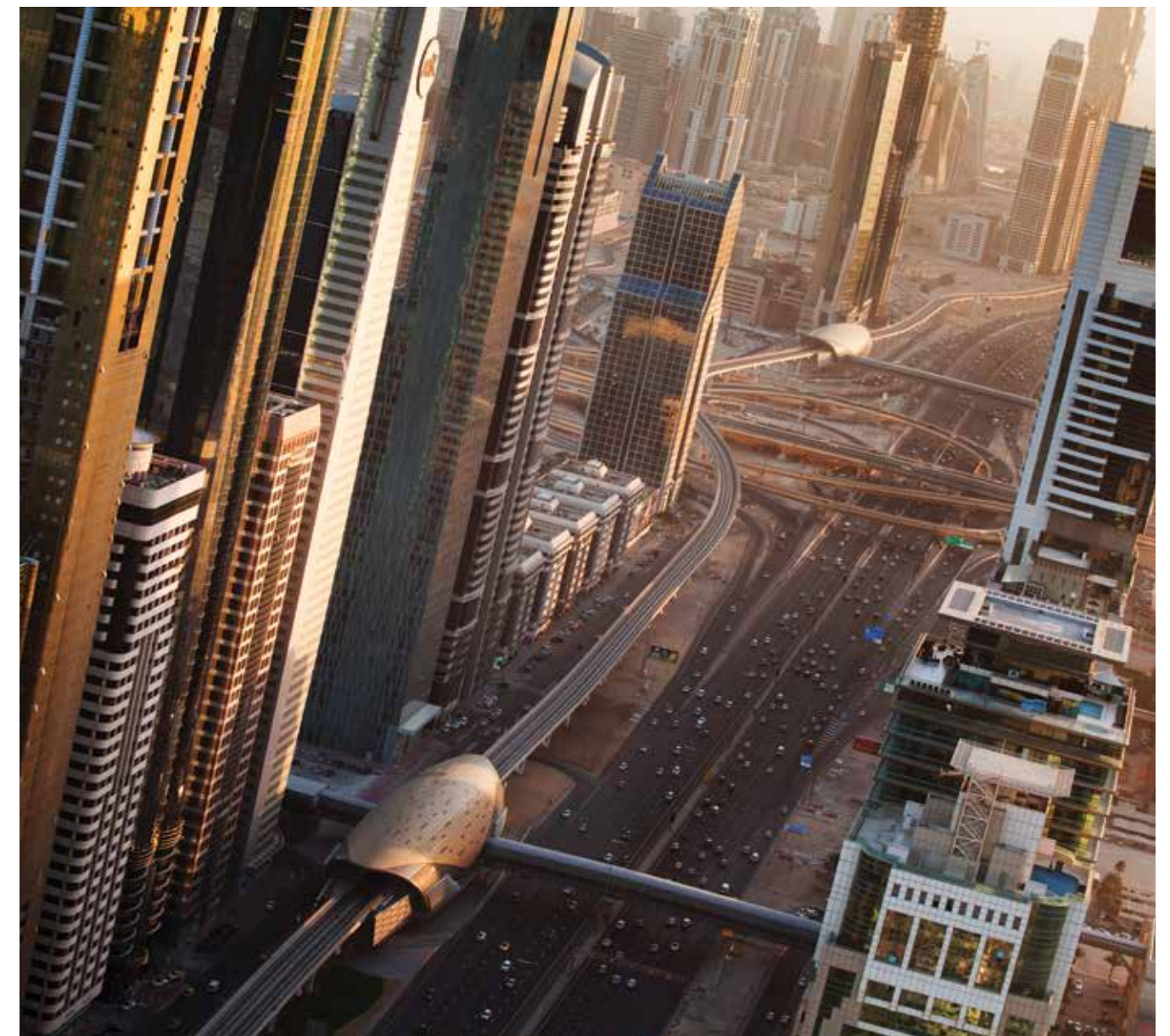
The five risk categories we focus on are financial, operational, business, technical and event. To manage these, we have developed a 5-step approach, which consists of establishing the context, identifying, analysing, evaluating and then mitigating the risks. This process itself is being reviewed and monitored by our internal audit function, and supported by ongoing communications and awareness rising of staff.

# OUR FUTURE COMMITMENTS

Going forward, we will work hard to be considered a role model for corporate governance. We will continuously ensure our employees comply with our Code of Conduct and that we as a company work within the boundaries of Dubai laws and regulations. We will continue to strengthen and improve our formal systems that control this, including our internal audit and risk management processes.

We will continue being a transparent and open company and involve our stakeholders in major decisions that affect them. We will closely monitor our relationship with the Dubai Government to avoid conflicts of interest.

Lastly, we will expand the responsibilities of our Sustainability Leading Team and work towards the implementation of our sustainability governance structure, by involving all parts of our business.





# GRI CONTENT INDEX

This is DEWA’s first sustainability report. Where possible, we have made reference to the sustainability performance indicators contained in the GRI G4 framework as well as the Electric Utilities sector supplement to develop this report. The table below provides guidance to our stakeholders in identifying the GRI indicators that have been disclosed within this report. The report contains standard disclosures from the GRI G4 Sustainability Reporting Guidelines.

Given the maturity of our information gathering and reporting systems we are not yet in a position to report in accordance with the GRI G4 Core reporting option. However, we aspire to meet the requirements of this standard in our forthcoming sustainability reports. We also intend to improve our reporting processes and systems with a view to obtaining external third party assurance on our future reports.

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