

DUBAI ELECTRICITY & WATER AUTHORITY

Directors' Report for the Year 2020

I INTRODUCTION

The year 2020 was both a learning experience and a test of our agility to adapt to unprecedented changes in the business environment. With the pandemic impacting key sectors of the economy, the growth in demand for power and water contracted about 2% in the year. Delivery of our services was accomplished through Smart channels and we utilized online processes and digital tools to sustain interaction with our several partners and stakeholders. Our trained workforce was equipped to work remotely amidst the constraints without compromising the service quality levels expected by our over 1 Million customers. Following the call of our wise leadership, to mitigate the hardship felt by various sectors, the Authority responded with cash discounts, tariff reduction and flexible payment terms for all customer categories. At the same time, we actively pursued opportunities for optimizing costs and improve revenues, which contributed to our success in reaching our budgeted financial targets and sustaining the strength of our balance sheet.

Expanding our Generation capacity through the IPP model has proved beneficial. During the year, we awarded projects for 120 MIGD Reverse Osmosis Desalination Plant and 900 MW Solar PV Plant, establishing record-breaking tariffs. We continue to reduce our dependency on imported fuels and enhance the long-term sustainability of our business.

In 2020, we continued to invest in the digital space, leveraging our digital assets to control and improve operations, simplify our processes and generate new revenue streams. These efforts were instrumental in improving our performance metrics in various spheres of activity including achievement of leading benchmarks like highest customer satisfaction, excellent Health & Safety record, lowest Customer Minute Lost and lowest Line Losses in Electricity & Water worldwide etc.

II DEVELOPMENT PROJECTS

A. Power Generation and Water Desalination projects

1. Capacities

As on	Electricity	Water
31.12.2020	12,300 MW	470 MIGD

- In order to meet the aggressive target of having 30% renewables in our portfolio by 2030 and 75% by 2050, we are expanding our solar portfolio. In 2020 the 300 MW phase C of our Shuaa Energy 2 Solar PV plant was commissioned. We also achieved successful financial close for the 900 MW Shuaa Energy 3 Solar PV Plant in October.
- Works on the 250 MW pumped storage hydro power plant and other projects to enhance generation capacity by aggregate of 1,419 MW, are in progress.
- A seawater reverse osmosis desalination plant of 40 MIGD is in finishing stage and a contract for a further 120 MIGD RO plant, to be built under IWP model, has been awarded. These plants will facilitate decoupling power and water production.

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5. Commercial operation of Unit No. 1 – 600 MW Hassyan ultra clean coal power plant (total capacity 2400 MW) commenced in November 2020.

B. Transmission

A brief summary of projects completed in 2020 is given below:-

1. Electricity

132 kV Substations commissioned	- 24 Nos.
400 kV substation commissioned	- 1 No.

Substations under execution at the year-end:-

132 kV	- 39 Nos.
400 kV	- 5 Nos.

- 109 transmission substations were brought under “secure cyber-smart substation” program.

2. System Development:

Peak demand in 2020 was 9,074 MW, which is higher as compared to 8,516 MW in 2019 by 6.6%.

3. Water

Expansion during the year includes:-

Total length of water pipeline network increased by:-	408 Kms.
Number of Water connections provided:-	67,778

Installation of digital meters is a key project nearing completion and over 95% of the meters can now be read remotely.

Construction of 2 reservoirs with combined capacity of 180 MIG and an aquifer storage and recovery project with 6 Billion IG capacity, are progressing satisfactorily.

Our large water network was operated and managed seamlessly despite the pandemic, utilising 28 pumping stations, 7 reservoirs and numerous SCADA connected devices. A key metric evidencing the overall water network efficiency is the water line loss, which was limited to 5.6% during the year.

We continue to review and enhance cyber security controls and commissioned a cyber-security operations centre as part of this exercise, which contributed to zero incidents and 100% uptime for critical infrastructure.

C. Distribution - Electricity

New Connections:

Our innovative and customer-centric approach to streamline distribution services and enhance competitiveness was once again recognized when the UAE, represented by DEWA,

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was ranked No. 1 in the world for ease of getting electricity as per the World Bank in its Doing Business report 2020.

Network Development

Number of 11-6.6 kV Substations commissioned	- 2,529
Number of Electricity Connections provided	- 73,306

- A high degree of power distribution reliability was maintained with no customer complaints for voltage variation. It is a matter of pride for the Authority that concerted efforts to maintain service excellence contributed in achieving distinguished Customer Minutes Lost (CML) of 1.66 minutes, which is a world-leading benchmark.

D. Civil

- In 2020, the Distribution Power Complex at Ruwaihah, Hydrogen plant in MBR Solar Park and the Lehab Road 33/11 kV substation were completed.
- Al Sheraa DEWA headquarter building and the Family staff accommodation, Warsan are in progress.

III OPERATIONS

A. Power Stations

Operation Highlights

- ❖ In 2020, the total power generation was 45,711,611 MWH and total water production was 121,006 MIG, which is 2.12% and 1.69% lower respectively compared to 2019.
- ❖ Annual Gross Heat Rate of 8,886 BTU/kWH is the best achieved so far.
- ❖ A total of 2,855,142 MWH of green energy was generated from our solar plants including IPPs.
- ❖ Energy import from Hassyan Clean Coal power plant was 810,069 MWH,
- ❖ Power plant annual availability of 92.28% is the best achieved so far. Annual reliability was maintained at 99.95%.
- ❖ Autonomous GT controllers were successfully developed in-house in partnership with Siemens, using AI with significant efficiency improvement and emission reduction.

DUBAL:

- ❖ Dubal supplied 4,294 MIGs of water to our network during the year.

IV POWER WATER & PLANNING

- Completed a weather sensors Network Project that simulates Solar rooftop generation for distribution planning purposes.
- Optimization of power and water infrastructure projects, coupled with the Demand Side Management efforts have resulted in significant cost savings in 2020.
- DEWA-ADWEA Strategic Water Interconnection is under progress.
- Demand forecast and Master Plans up to 2030 have been issued.

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- Submitted proposal to enhance and secure water supply in Hatta and the project is under construction.

V BUSINESS DEVELOPMENT & EXCELLENCE

Building future power and water plants under IPP model is our preferred strategy to achieve business sustainability. Major on-going projects include 2400 MW Hassyan ultra supercritical clean coal power plant (partly commissioned), 900 MW Solar CSP + PV hybrid IPP (Phase 1 commissioning is in 2021), 900 MW Solar PV Plant (Phase 1 to be commissioned in 2021) and 120 MIGD Seawater Reverse Osmosis IPP awarded recently (scheduled commissioning in 2024).

Our R&D centre was inaugurated in March 2020 by H.H. Sheikh Mohamed Bin Rashid Al Maktoum, Vice President, Prime Minister of UAE and the Ruler of Dubai. It employs proficient National Engineers, who are engaged in several innovative projects relevant to our business, including green hydrogen, solar energy, energy efficiency, smart grid integration etc. The Innovation Centre, an iconic landmark in the heart of MBR Solar Park, was inaugurated in November 2020.

The Shams initiative to encourage solar roof top generation has evinced much interest and total connected load has reached 262 MWp in 2020.

DEWA emphasizes social and economic sustainability. Our “My Sustainable Living Program” has helped nearly 400,000 customers to rationalize their electricity and water usage and make their homes more efficient. We are monitoring energy curtailment opportunities and successfully obtained certification under EnMS ISO 50001 for our head office. The Authority won sustainable excellence certificate from EFQM for its leading role in sustainable programs.

VI INNOVATION AND THE FUTURE

The incorporation of our subsidiary Digital DEWA provides a platform to pool our digital resources and accelerate the transformation journey of smart adoption across all our services. In 2020, DEWA achieved the Dubai Paperless Strategy by becoming 100% paperless through an array of projects and initiatives. We are the first government organization to allow customers to conduct all their transactions themselves using smart devices and introduced Universal Service Centre concept, which provides them reliable, secure services using AI technologies. It is no surprise that DEWA is the leading Dubai Government entity for adopting smart services, achieving 98.6% in 2020.

In the wake of the pandemic, we succeeded in converting to 100% work-from-home in record time with un-interrupted transition by equipping employees with needed technologies. Several intelligent automation projects were completed including online Bank Guarantee process (a first in the region), e-Pass electronic access, etc.

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VII **BILLING SERVICES**

During the year new Electricity & Water accounts continued to grow steadily as reflected in the following table.

As at 31st Dec.	Electricity (Single)	Water (Single)	Electricity & Water (Combined)	Total	
				No. of Accounts	% Growth
2020	144,666	40,888	846,016	1,031,570	7.7%
2019	139,682	41,386	776,365	957,433	

VIII **BUSINESS SUPPORT** **Health, Safety & Environment**

The Health & Safety of our employees and compliance with environmental regulations are high priority for the Authority. Our distinguished practices in these areas have contributed to securing the highest Sword of Honor Award from the British Safety Council for the 13th time as well as the Globe of Honor Award for environment for the 9th consecutive year.

Smart Transformation

Key processes are continually reviewed and improved and independently certified to international standards, notable among them being Information Security, Information Technology, IT Service Management, Quality Management Systems, Process Improvement, Asset Management, Crisis Management and Governance.

IX **STRATEGY & GOVERNMENT COMMUNICATIONS**

DEWA's updated corporate strategy reflects evolvement of DEWA's strategic directional layers. We are considered a role model in risk and resilience and a utility that can withstand unexpected disruptions, both physical and digital.

The launch of Mu'asherat 2.0 has significantly improved SLAs reporting and decision making and the iVolunteer App provides access to all for volunteering for societal activities. We are first place winners of Arabia CSR award in the Public category and International CSR Award in community commitment and volunteering. We are also the first government organization to win 3 awards in MENA Digital Awards for quality of our public campaigns.

X **FINANCE** **General**

Our Sales revenue in 2020 declined by 5% compared to previous year due to the impact of the pandemic.

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There is a pick-up in Shams Dubai initiative, under which rooftop solar capacity built by customers has surged to over 2% of our total capacity, contributing to the decline in electricity demand this year. Despite the constraints, the Authority took pro-active steps to optimize costs and enhance revenues and successfully ended the year above budget.

The Authority exercises prudent fiscal discipline and was well prepared to repay the maturing bond of USD 1.5 Billion, disburse Capex payments totaling to nearly AED 8 Billion in 2020 besides disbursing a significant dividend of AED 1.5 Billion to our sole shareholder, the Government of Dubai.

We have gained insight and strength through the recent experiences and look forward with optimism and more confidence.

A. Income

i. Sales

Though Electricity and Water Revenues declined as compared to previous year, we are forecasting 1.5% growth in both Electricity & Water in 2021.

ii. Other Income

This is higher than previous year mainly on account of higher dividend income received from our subsidiary M/s. Empower and we also received dividends for the first time from two other subsidiaries viz. M/s. Dubai Green Fund and M/s. Etihad Energy Services.

B. Expenditure

The following comments on the year's expenditure may be found relevant.

a. Administrative Expenses

The increase in expenditure observed when compared to previous year is due to higher expense for staff cost, purchase of power and an increase in depreciation expense.

b. Fuel

The decrease in expenditure over the previous year is attributable to the lower production of Electricity and Water in-house and the higher import of power from IPPs.

c. Depreciation

The increase over previous year is due to new plant, property and equipment taken over by the Authority and put into use during the year.

d. Net Financing Income

The decrease in Net Finance Income compared to previous year is mainly due to lower interest earnings from fixed deposit with banks, as a result of lower cash surpluses and a decline in bank interest rates.

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XI **HUMAN RESOURCES**

➤ **Total Staff Strength**

As on 31.12.2019	11,601
As on 31.12.2020	11,398
Decrease in Numbers	-203
Decrease in Percentage	-1.75

No. of UAE Nationals (Confirmed & Trainees)

As on 31.12.2019	3,228
As on 31.12.2020	3,355
Increase in Numbers	127

UAE National Trainees

Category/Grade	As on 31.12.2019	As on 31.12.2020
Graduate Trainees	235	189
Diploma Trainees	1	2
High School Trainees	66	109
Total	302	300
