



# Next-Gen Sustainability Enabler Disrupting The Cooling World

Corporate Update

September 22, 2022



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**EMPOWER**

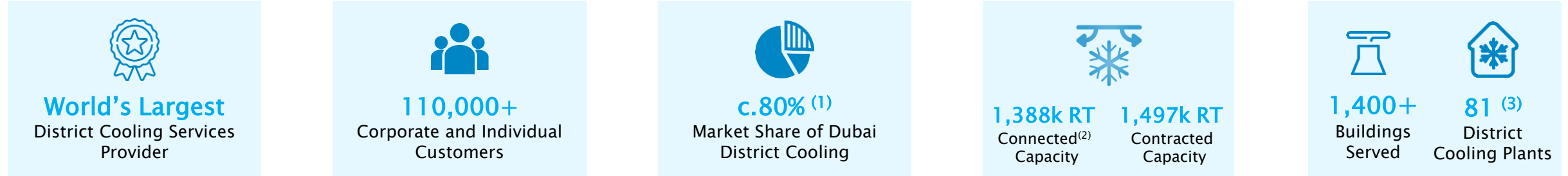
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## A. EMPOWER at a Glance

# EMPOWER at a Glance – World’s Largest District Cooling Services Provider

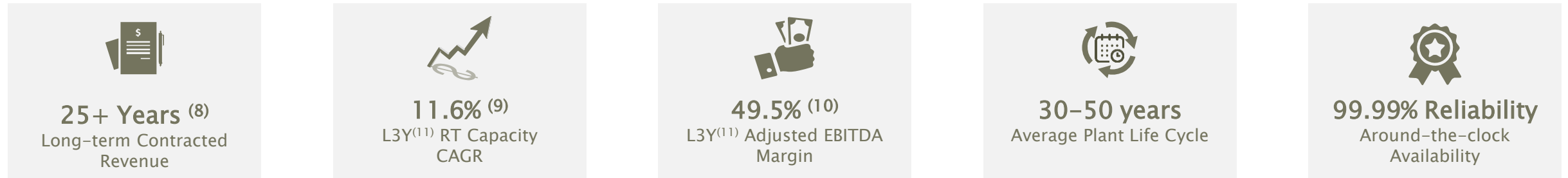
## Unrivalled Scale



## ESG Highlights



## Superior Operational and Financial Profile



Sources: Company information, Government of Dubai. Notes: (1) 80% by year end 2022, subject to concluding Dubai Airport district cooling assets transaction; 79% as of Dec-2021. (2) Connected capacity as of H1 2022: capacity provided to meet cooling demands depending on load density and utilisation (excluding Dubai Airport district cooling assets acquisition, transaction pending closing). (3) Number of plants by year end 2022, subject to concluding Dubai Airport district cooling assets transaction, 76 plants at present (4) By utilizing 100% renewable energy and recycled water for District Cooling. (5) Industry average. (6) Treated Sewage Effluent. (7) EMPOWER’s methodology Clean Development Mechanism (“CDM”), for calculating avoided emissions, has been approved in the 92<sup>nd</sup> UN Executive Board in 2016. (8) Typical contract length. (9) Refers to connected capacity. Considers 2021A capacity of 1,368k RT and including an adjustment for c.70,000 RT of capacity from the Dubai Airport district cooling assets acquisition (Transaction pending closing). (10) Adjusted EBITDA excluding one-off items including other income, net impairment losses on financial assets and share of profit from JV. (11) L3Y stands for Last 3 Years.

# EMPOWER is the Preferred District Cooling Services Provider to the Most Iconic Symbols of Dubai

## Business Bay



342k RT

Business District in Dubai, considered to be a city within a city, to feature **more than 240 buildings** when fully completed

## Palm Jumeirah<sup>(1)</sup>



225k RT

Unique development shaped like a palm tree, home to some of Dubai's top luxury resorts

## Dubai International Airport<sup>(2)</sup>



110k RT

World's busiest airport by international passenger traffic (2021)

## Dubai International Financial Centre (DIFC)



107k RT

Special economic zone in Dubai and the **largest financial centre in Middle East & Africa**

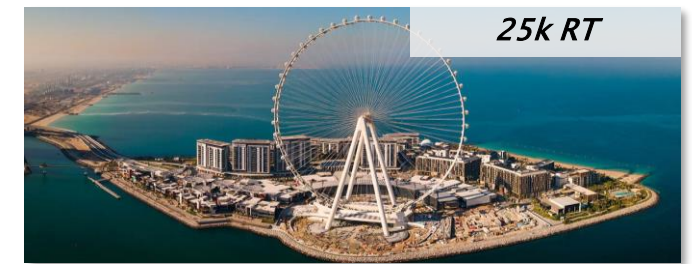
## Jumeirah Beach Group Hotels<sup>(3)</sup>



29k RT

Burj Al Arab is the iconic sail-shaped Dubai hotel situated on its own island with its **wave-shaped adjacent resort hotel counterparties, Jumeirah Beach Hotel and Marsa Al Arab**

## Ain Dubai & Bluewaters Island



25k RT

World's biggest & tallest ferris wheel in Bluewaters Island, an artificial island with multiple real estate developments opened in 2018

*Site Cooling Capacity ('k RT)*

# Overview of Key Projects in Dubai with Site Capacity



**Meydan**  
382k RT



**Business Bay**  
342k RT



**Jumeirah Village South**  
256k RT



**Palm Jumeirah**  
225k RT



**Jumeirah Lake Towers**  
150k RT



**Dubai Production City**  
125k RT



**Dubailand Residential**  
120k RT



**Dubai International Airport**  
110k RT<sup>(1)</sup>



**TECOM (A, B, C)**  
109k RT



**DIFC**  
107k RT



**Discovery Gardens**  
89k RT



**Nakheel Projects**  
88k RT



**Jumeirah Beach Residence**  
85k RT



**Dubai Design District**  
84k RT



**Dubai HealthCare City 2**  
77k RT



**Dubai Int'l Academic City**  
72k RT



**Dubai Studio City**  
70k RT



**Dubai World Trade Centre**  
58k RT



**Dubai HealthCare City 1**  
43k RT



**AI Quoz JISA / AI Khail**  
35k RT



**Bluewaters**  
25k RT



**Mirdiff**  
22k RT



**Global Village**  
20k RT



**Deira Waterfront Ph1**  
15k RT

# Globally Recognised World Class District Cooling Leader

## Award-Winning Sustainable Cooling Champion

### Strategic and Operational Advantage

- ✓ Efficient and cost-effective concept for cooling
- ✓ Strategic assets and asset creation framework as a **growth engine** of Dubai and the UAE
  - ✓ **Close relationships with key stakeholders** and developers in Dubai
- ✓ **Best-in-class** and innovative operations
  - ✓ Innovative use of **Treated Sewage Effluent (TSE)** with reverse osmosis
  - ✓ Commissioned **LEED-certified plants**
  - ✓ **In-house technological capabilities** with automated command control centre, and mobile maintenance team

### Best Cooling Solution for Customers

- ✓ **Uniform pricing policy** with flexible volume agreements
- ✓ District cooling services **provider of choice to key developers and iconic projects in Dubai**

### Recent Awards & Highlights



2022

Number of Buildings Committed (IDEA)  
*(Also awarded in 2021 and 2019)*



2022

Total Building Area Committed (IDEA)  
*(Also awarded in 2021 and 2019)*



2020

Executive Achievement of the Year<sup>(1)</sup>  
(Globe Awards)



2020

Company of the Year<sup>(2)</sup>  
(Globe Awards)



2019

Intelligent Delta T Analyser/ Detector<sup>(3)</sup>  
(IDEA)

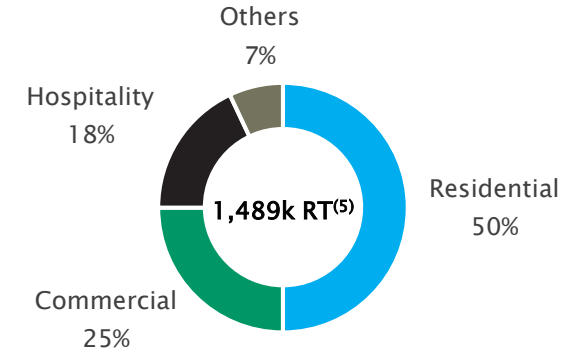


2018

AIMS 360<sup>(4)</sup>  
(IDEA)

## Diversified Customer Base

### Connected Capacity by Type, 2022E



### Critical to the Functioning of Dubai with Landmark Anchor Customers



EMPOWER's strong relationships with master developers ensures a **highly diversified end-user base** and reflects the **strength** of Dubai's economic growth engine

Sources: Company information, Zawya by Refinitiv. Notes: (1) Awarded to Ahmad Bin Shafar, CEO of EMPOWER, for his contribution in encouraging the region to adopt district cooling concepts. (2) Awarded in the Energy and Utilities category for the practical innovations in developing the district cooling industry in the world. (3) Received Innovation Award Honourable Mention for the "Intelligent Delta — T Analyzer & Detector" technology. (4) Received the Innovation Award for the "360° Solution for Metering Artificial Intelligence (AIMS 360)". (5) Based on Company estimates for 2022E YE, considers closing of Dubai Airport district cooling assets acquisition and other additions in 2022.

## Backed by Leading Shareholders

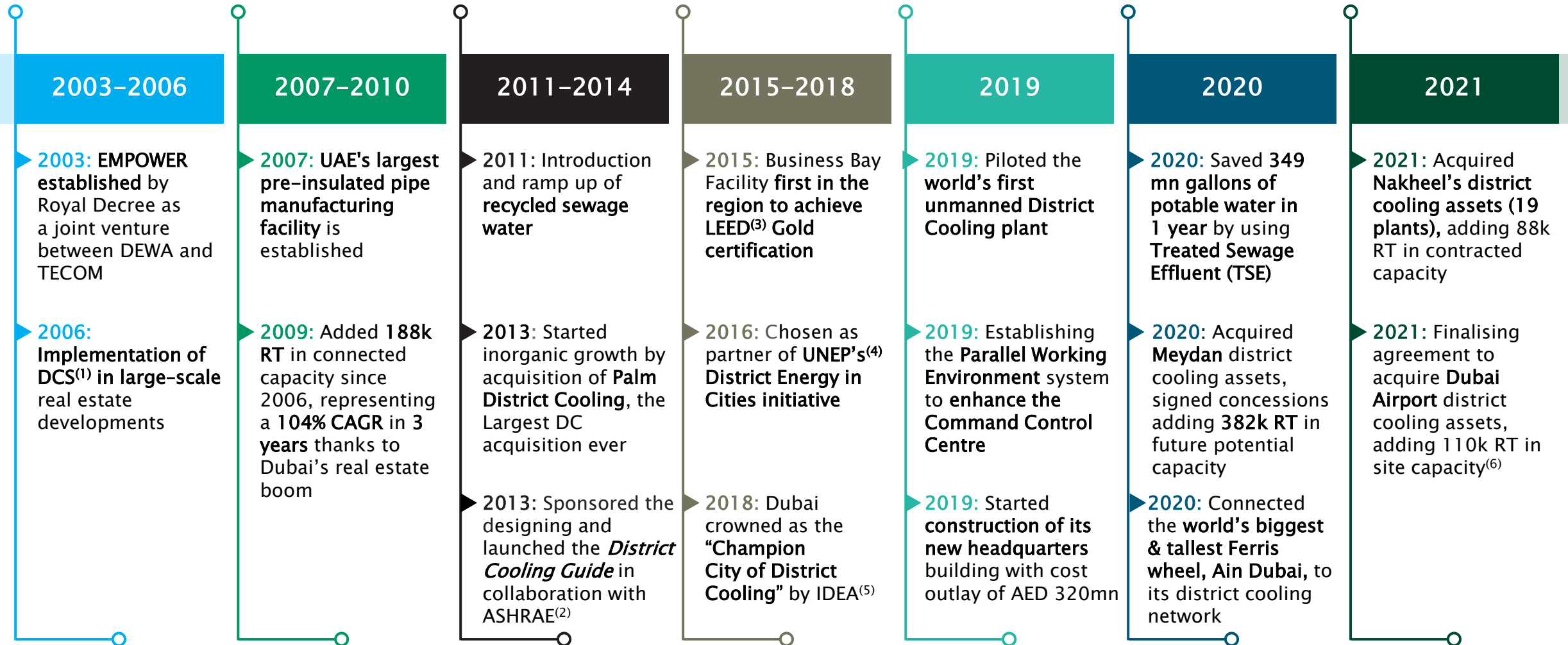
- ✓ DEWA is the **exclusive provider** of **electricity** and **water** in Dubai and is a secure and reliable utility provider for EMPOWER
- ✓ **Large scale integrated corporation** with **best-in-class efficiency** providing **critical infrastructure** to the Emirate of Dubai
- ✓ **A key partner and parent to EMPOWER** with **best-in class industrial expertise, with strong utility know-how and regional track record**
- ✓ **Shared values** with EMPOWER's way of doing business: **efficient, innovative, digitalised and reliable**
- ✓ A key player in **achieving Dubai's energy efficiency targets**



- ✓ Dubai Holding ("DH") is **one of the Emirate's largest diversified conglomerates**
- ✓ The group is **a strategic and financial-oriented investor** and **plays a crucial role in diversifying Dubai's economy** and driving innovation and economic development
- ✓ **Portfolio companies have market-leading positions** across core sectors of real estate, hospitality, and entertainment
- ✓ Since its foundation, EMPOWER has been the **district cooling services provider of choice for Dubai Holding's projects**



## EMPOWER's Corporate Journey and Key Milestones



## EMPOWER's Vision and Mission



### EMPOWER's Vision

To Be the World's Leading  
District Cooling Services Provider



### Our Mission is

To promote sustainable and optimized use of energy resources by delivering reliable, cost-effective and environmentally friendly world-class district cooling services to achieve customer satisfaction, thereby creating long-term shareholder value



# EMPOWER, a Comprehensive ESG Proposition

## 360 Degree View on Sustainability

### Net Zero Plants by 2050

Carbon Neutral plants by 2050 by utilizing 100% renewable energy and recycled water

### Smart Cities

Safety, improving air quality, reducing visual pollution

### Innovation for Efficiencies

Centralised metering data management system and use of AI



### Preventer of GHG Emissions

Using DC Systems, EMPOWER has been able to avoid 735k tCO2 in 2021<sup>(1)</sup>

### Energy, Water and Waste Efficiency Enabler

50% less energy compared to traditional cooling solutions, reuse of water, and paperless strategy<sup>(2)</sup>

### Governance Practices

Set of corporate policies, cascaded into objectives, KPIs and procedures



### Affordable and Clean Energy

Strong contribution to SDG 7 as largest DCS provider



### Sustainable Cities and Communities

Advisor to UN's Environment Program on its 'District Energy in Cities' global initiative



### Climate Action

DC is designed to save energy, water and minimize CO2 emissions

# Strong, Resilient, Predictable and Growing Financial Profile

**1** Growing and Visible Revenues

- ✓ Fundamentally attractive and fast-growing market
- ✓ Revenue growth supported by RT capacity additions and demand growth

**2** Growing EBITDA and Healthy Margins

- ✓ High predictable and stable EBITDA and EBIT margins
- ✓ Proven track record of stable growth and continuous efficiency improvements

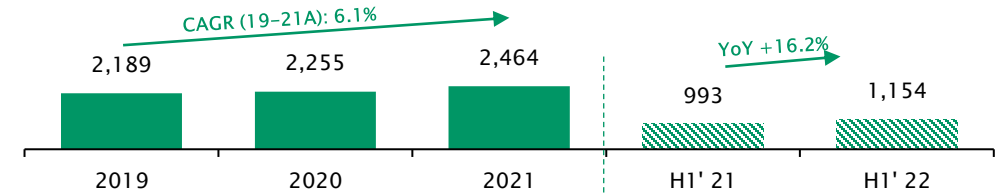
**3** Strong Cash Flow Generation Ability

- ✓ Resilient earnings given tariff structure and inelasticity of demand
- ✓ Diversified customer base with key anchor clients
- ✓ Long-term contracts of 25+ years including perpetual renewal clauses

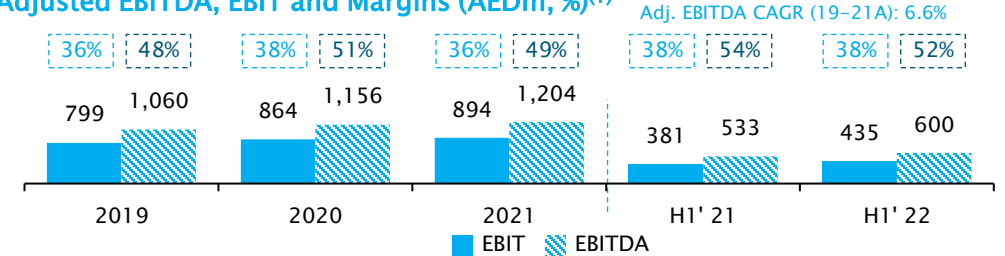
**4** Robust Capital Structure and Strong Ability to Pay Dividends

- ✓ Moderate leverage profile
- ✓ Strong financial ability to fund growth and offer attractive dividends to shareholders

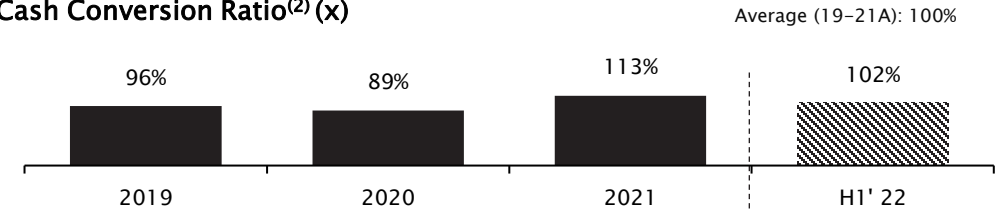
Revenues (AEDm)



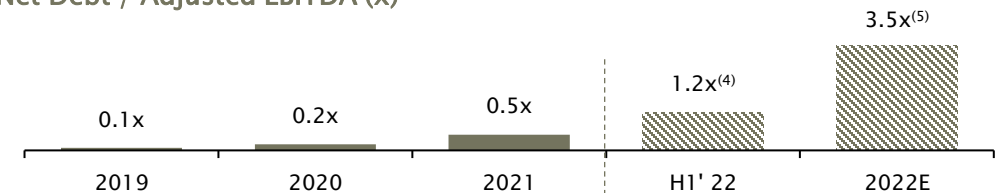
Adjusted EBITDA, EBIT and Margins (AEDm, %)<sup>(1)</sup>



Cash Conversion Ratio<sup>(2)</sup> (x)



Net Debt / Adjusted EBITDA (x)<sup>(3)</sup>



Source: Company information, Financial Model. Note: (1) Adjusted EBITDA and EBIT exclude impairment reversal of project cost, and other income. (2) Cash Conversion Ratio defined as net cash generated from operating activities / Adjusted EBITDA. (3) Calculated as Net Debt (bank borrowing (current and non-current) - cash and cash equivalents - term deposits) / Adjusted EBITDA. (4) Calculated as H1 2022A Net Debt / H1 2022A Adjusted EBITDA. (5) Company currently undergoing refinancing efforts. Refer to Adjusted EBITDA reconciliation in appendix.



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## B. Key Highlights



## EMPOWER's Key Highlights – Fast Growing Sustainability Enabler



Technology: EMPOWER-ing sustainable district cooling, disrupting traditional AC

1



Scale: Largest district cooling services provider in the world and the clear leader in Dubai

2



Market: A fast-growing district cooling market with supportive government policies

3



ESG: Sustainability centric business model enabling Dubai's energy transition

4



Management & Operations: Best-in-class management and operational expertise with next-generation technology disrupting cooling

5



Financials: Resilient, predictable and growing financial profile supported by a favourable business model

6



Growth: Well-positioned to capture growth opportunities in the UAE and beyond

7





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# 1. Technology: EMPOWER-ing Sustainable District Cooling, Disrupting Traditional AC

# Overview of District Cooling Technology

## Legacy Cooling Technology

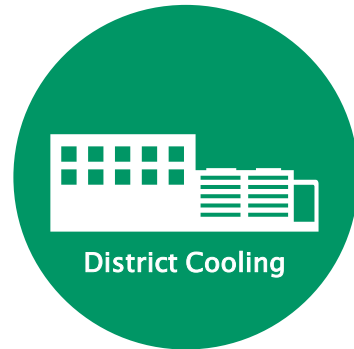
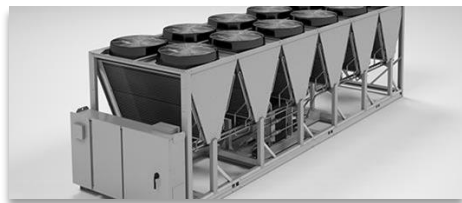
### Standard Window Air Conditioning



### Split AC Units



### Roof Top Chillers



**Up to 50%**

reduction of cooling energy consumption through higher energy utilization with district cooling



**Frees up space**

on rooftops and in basements for increased aesthetics and design freedom



**>50%**

reduction of CO<sub>2</sub> emission and hazardous refrigerants can be achieved with district cooling

VS

## How District Cooling Works

1

### District Cooling Plant

Produces and supplies bulk quantities of chilled water at a temperature of around 4.5+1°C

2

### Thermal Energy Storage

Stores cooling to balance peak demand

3

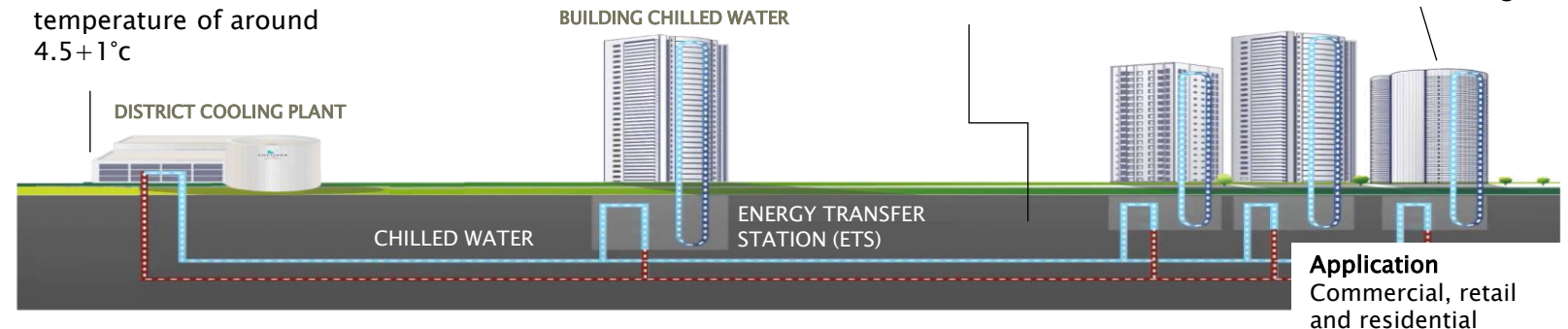
### Distribution Network

Underground, insulated pipes carry the chilled water

4

### Delivery

District energy substations deliver the chilled water to a network of buildings



- District cooling is a **future-proof system** that **efficiently** cools buildings through centralized distribution of chilled water
- By investing in the use of district cooling, cities will become much **more energy efficient** and significantly **reduce greenhouse gas emissions**
- District Energy represents a significant opportunity for cities to be **more climate resilient, resource efficient and low-carbon**



# District Cooling: The Most Sustainable, Suitable and Preferred Cooling Solution for the GCC

## Tipping Point Megatrends Accelerating the Need for Cooling



## District Cooling: the Sustainable Cooling Solution



### Higher Return on Investments

- ✓ Lower investment costs and operating costs, using 50% less power compared to traditional AC
- ✓ Lower deterioration of equipment with longer life cycle (30–50 years) vs. traditional ACs (12–15 years)



### Best Suited for GCC Master Development

- ✓ Cooling is an essential aspect of GCC real estate development given the region's hot desert climate
- ✓ Continued investments in infrastructure and increasing real estate density lead to a significant and growing amount of aggregated district cooling demand



### Sustainable Cooling Infrastructure and Social Role

- ✓ Lower CO<sub>2</sub> and other pollutants emissions
- ✓ Reduction in power consumption and electricity system peak loads
- ✓ Reduces overall tariffs for final consumer



### Easy Maintenance and Superior Reliability

- ✓ Outsourcing of cooling operations allow developers to focus on their core business
- ✓ Around-the-clock and reliable (99.99%) availability

# EMPOWER's Distinctive Operating Model within District Cooling

## Fully Integrated Owner and Operator

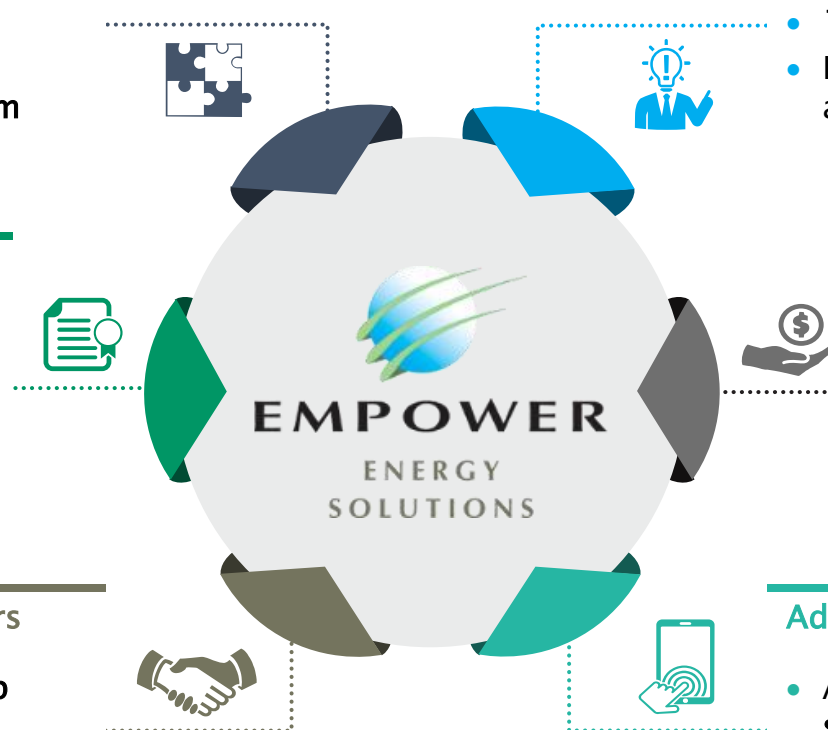
- All of EMPOWER's plants are fully owned and operated by EMPOWER<sup>(1)</sup>
- In-house Operations & Maintenance team with dedicated operators onsite 24/7

## Distinctive Project Development Framework

- Strong positioning in top districts in Dubai (Business Bay, DIFC, JBR, etc.)
- Exclusive rights for upcoming developments within the signed Master Developments

## Relationships With Tier 1 Master Developers

- Long-term contracts (25+ years) with top institutions in Dubai



## Proven Operational Expertise and Efficiency

- 100% smart metering across all of its projects
- Leveraging thermal energy storage systems (TES) and TSE<sup>(2)</sup> to reduce water consumption

## Industry Benchmark for Low-Cost Base and Efficient Investment Deployment

- Modular asset strategy, spreading capex over future years in line with project's requirements
- Reduced cost base vs. competitors and vs. other cooling alternatives

## Advanced Digitalization Capabilities

- All plants are integrated with local SCADA systems, enabling auto mode operation
- Full integration via CCC<sup>(3)</sup> and PWE<sup>(4)</sup> enabling remote operation of the plants under lockdowns

EMPOWER differentiates itself from its competitors by leveraging its scale, integrated business model, in-house expertise, preferred contracts and operational capabilities to serve as the preferred district cooling provider for Tier 1 Master Developers within the Emirate of Dubai



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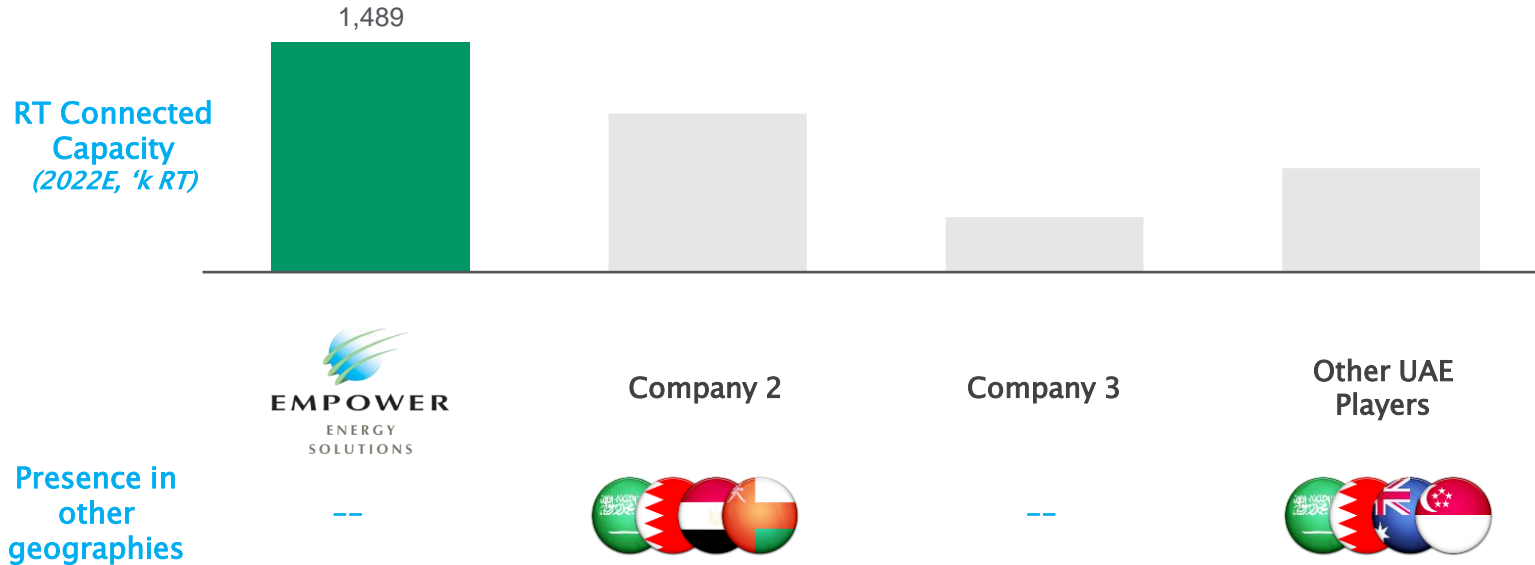
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A night-time photograph of the Dubai skyline, featuring numerous illuminated skyscrapers and the Burj Khalifa on the right. The lights are reflected in the water in the foreground.

**2. Scale: Largest District Cooling Services Provider  
in the World and the Clear Leader in Dubai**

# EMPOWER: The Largest District Cooling Platform in the UAE and Globally

## The Largest District Cooling Player by RT Capacity

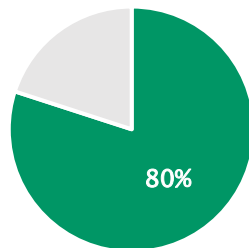


## Other Key International District Cooling Players

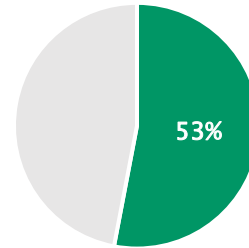
Company	Geographies
QATAR COOL	
SHINRYO	
GAS DISTRICT COOLING	
Keppel Corporation	
SNC-LAVALIN	

## Dubai Focused Operator with 80% District Cooling Market Share

EMPOWER Dubai District Cooling Market Share<sup>(1)</sup>



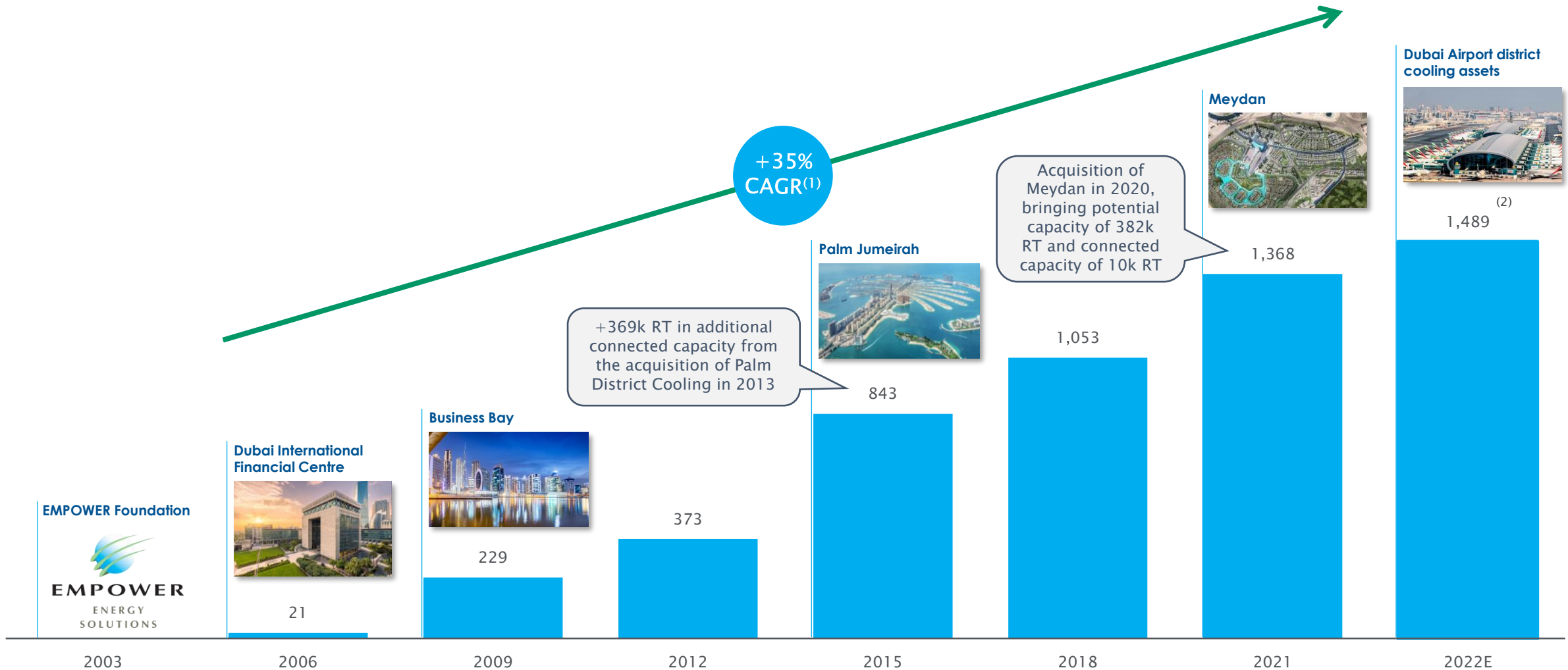
EMPOWER UAE District Cooling Market Share



Sources: Company information. Company websites. Note: (1) 80% market share reflects market share post-completion of Dubai Airport district cooling assets acquisition, transaction pending closing; 79% market share at YE 2021.

# Long-Standing Track Record of Expanding to New Projects and Achieving Growth

## Evolution of Connected Capacity ('k RT)



Source: Company information. Note: (1) Over 2004–2022E. (2) Based on Company estimates for 2022E YE, considers closing of Dubai Airport district cooling assets (transaction pending closing) and other additions in 2022.

# Preferred District Cooling Services Provider to Dubai's Iconic and Landmark Projects

## EMPOWER's Distinguished Dubai Footprint



— Main Roads    ■ Current Projects

## Landmark Projects with Worldwide Recognition



**Business Bay**  
c.342k RT

- ✓ The project began in 2009 and consists of six cooling plants
- ✓ **The world's largest urban district cooling project covering one of Dubai's busiest business centres**



**Meydan**  
c. 382k RT

- ✓ Construction began in 2010 and is still ongoing
- ✓ Has been designed to become an **urban, vibrant, and mixed-use district** that incorporates hotels, a water park and the **longest indoor ski slope in the world**



**Jumeirah Village South**  
c.256k RT

- ✓ The project began in 2017 and consists of four cooling plants with first plant commissioned by EMPOWER
- ✓ Family-friendly community and the **most sought-after option for affordable housing** in Dubai



**Palm Jumeirah**  
c.225k RT

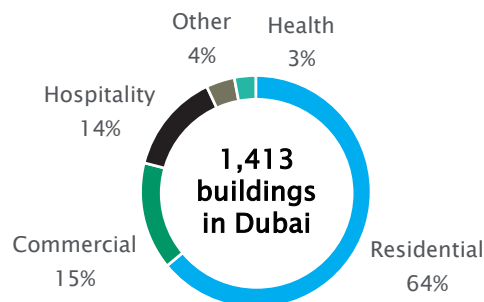
- ✓ Construction began in 2006 and consists of six cooling plants
- ✓ Unique development shaped like a palm tree which is visible from the moon, **home to some of Dubai's top luxury resorts**

## Large and Diversified Customer Base with 110k+ End-Users

### Diversified Customer Base...

- ✓ Provider of **cooling solutions to critical infrastructure services in Dubai**
- ✓ **EMPOWER provides cooling services to all aspects of Dubai's economy** including residential, hospitality, commercial and healthcare buildings
- ✓ **Serving more than 1,400 buildings in Dubai**
- ✓ **Preferred district cooling services provider for Dubai's most iconic projects** with the ability to cater to varied project types and customers

### Split by Number of Buildings Served (2021)

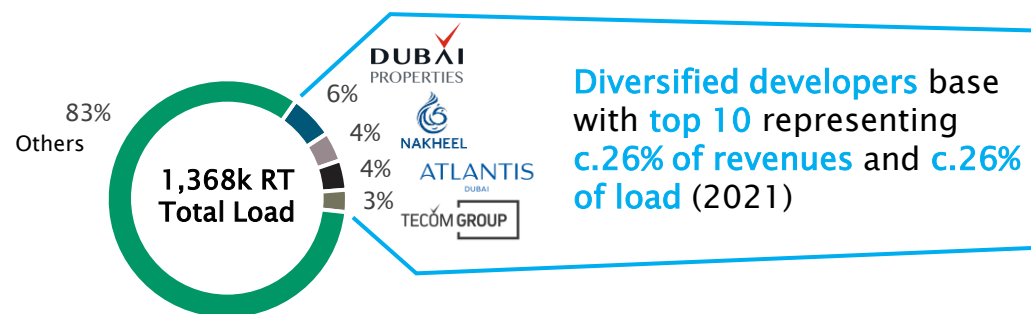


- ✓ **Residential corresponds to great majority of buildings served (64%)**
- ✓ **Provider to more than 17% of Dubai's hotel buildings**

### ... Underpinned by Captive Demand

- ✓ **Established relationships with Dubai's developers**, making EMPOWER the preferred district cooling services provider to their developments
- ✓ Strong and stable relationships with **renowned master developers**
- ✓ **Robust and exclusive agreements** ensure revenues are contracted and visible in the long-run
- ✓ **Ensures ongoing business and potential expansions from the completed projects**

### Total Load Split per Developer (2021)





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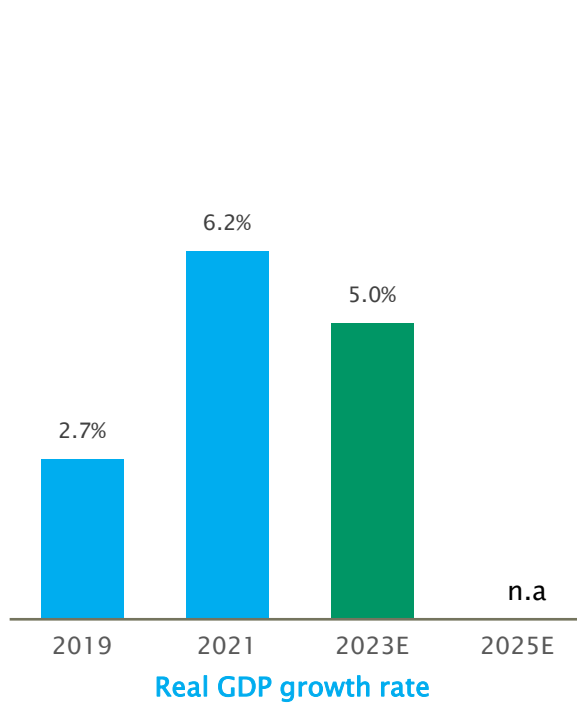
### **3. Market: A Fast-Growing District Cooling Market with Supportive Government Policies**



# Solid Macroeconomic Fundamentals for District Cooling in Dubai

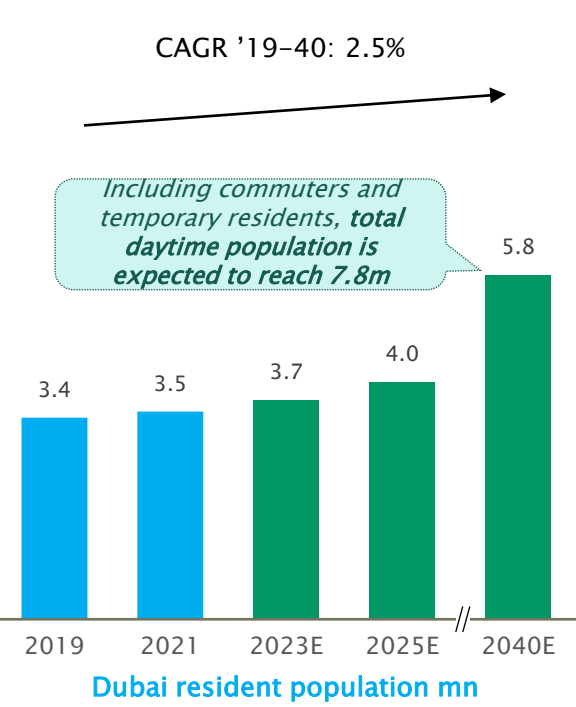
## Dubai Resilient Economic Growth

- Resilient and healthy economy with one of the fastest-growing economies in the region



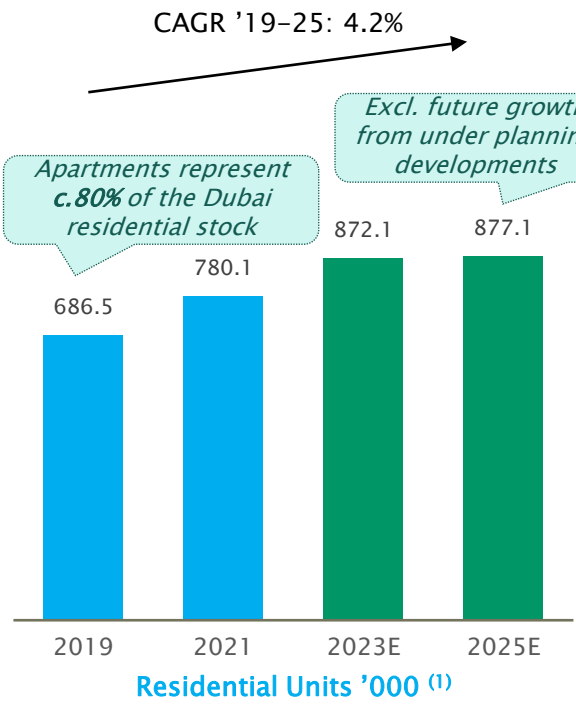
## Healthy Dubai Demographic Profile

- Growing population, continuous expat inflows and increasing number of households



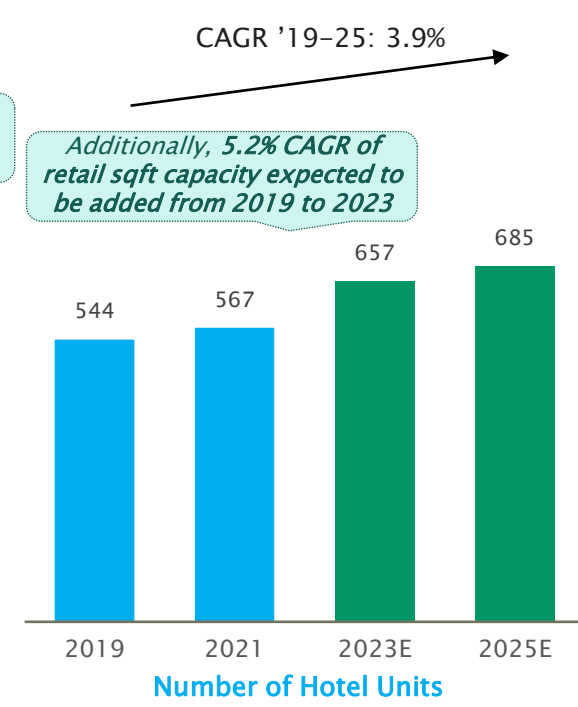
## Strong Growth in Dubai Residential Real Estate Supply

- Expanding residential real estate economy is a key source of district cooling demand
- High density residential units (e.g apartments) in Dubai favour district cooling adoption



## Booming Hotel Capacity in Dubai

- EMPOWER serves 17% of Dubai's hotel buildings
- Growing hospitality industry in Dubai, with fast-recovering occupancy rates and >25 new hotels anticipated during 2023E-2025E



Sources: Dubai Statistics Center, FTI Market Report, EIU, World Bank - Climate Change Knowledge Portal, Jones Lang LaSalle, Value Strat and Knight Frank 2021 Dubai Real Estate Reports. Notes: (1) historical data includes rural and urban housing units based on Dubai Statistics Center report. Forecasted years include incremental additions based on units currently under construction and expected to be launched by 2025 as per Knight Franck data. Excludes any projects under planning and development

# Dubai: An Attractive and Desirable Destination for Tourists and Expats

## Dubai is Taking Active Steps to Attract Tourists and Residents



**#1 Busiest airport in the world by number of international passengers** (2014–2021 consecutive years)



Creation of **several visa and residency schemes** (golden visas, retirees, remote workers etc.)



**1st City in the world** to reopen its borders to international travelers in December 2020 (6 weeks lock down only)



**100% vaccination rate<sup>(1)</sup>** vs 61% globally with Dubai ranking 2<sup>nd</sup> place for handling the COVID-19 pandemic<sup>(2)</sup>



Dubai is the **#3 most preferred city to move globally<sup>(3)</sup>**



**#1 Travel destination for 2022**



**Dubai 2040 Urban Master Plan** transforming the Emirate into 5 Interconnected Urban Centres and Boosting Local Population

## Impressive Roster of Events and Governmental Initiatives

*Dubai plans to host 400 global events per annum by 2025*

### Recurring Events



### Mega Expo 2020



إكسبو 2020  
دبي، الإمارات العربية المتحدة  
DUBAI, UNITED ARAB EMIRATES

### Dubai Tourism to be Boosted by Regional Events



FIFA WORLD CUP  
Qatar 2022



Abu Dhabi 2022

### Numerous Governmental Initiatives to Foster Growth Drivers



Dubai Clean Energy Strategy



# Significant Dubai Initiatives to Foster Growth and Accelerate Energy Transition

## Dubai 2040 Urban Master Plan

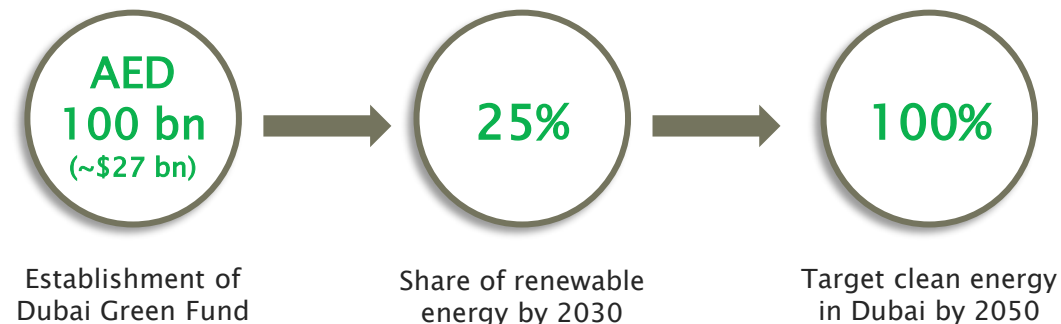


- Launched in March 2021 promoting the **sustainable development of Dubai**
- Make the Emirate the **best city to live in the future**:
  - ✓ Development of **5 major urban areas** of Dubai
  - ✓ Natural reserves **up to 60%** of Dubai's land areas
  - ✓ Land area for hotels and tourism to increase by **134%**
  - ✓ **Residents** and **daytime population** to increase to **5.8 mn** and **7.8 mn** respectively by 2040
  - ✓ Facilitate **non-automotive means** of transportation

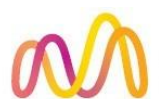
2040 دبي DUBAI

## Dubai Clean Energy Strategy 2050 Highlights

Transforming Dubai into a **carbon neutral** economy by 2050



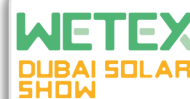
## Dubai, A Proactive Partner in the Global Sustainability and Diplomatic Agenda



**Middle East Energy**  
World's leading power exhibition



**Mena Climate Week Dubai 2022**  
Part of UN Regional Climate Weeks, first ever MENA Climate Week



**WETEX & Dubai Solar Show 2022**  
Aims to achieve integration across sectors of the energy industry



**COP 28**  
28<sup>th</sup> Conference of the Parties (COP 28) to the UN Framework Convention on Climate Change

## Enablers Supporting Green Growth



القمة العالمية للاقتصاد الأخضر  
WORLD GREEN ECONOMY SUMMIT

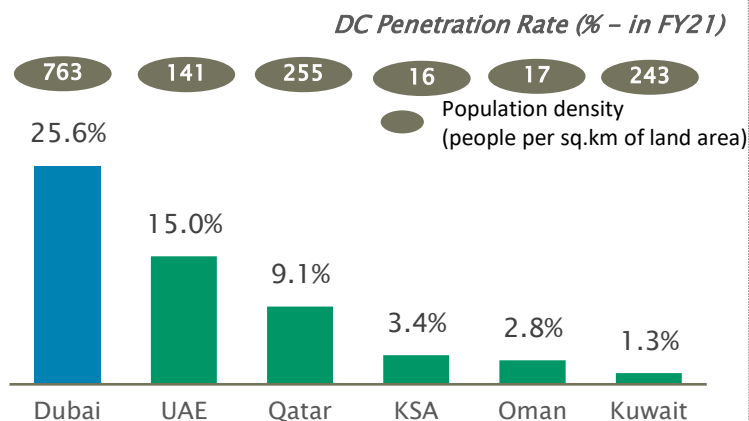
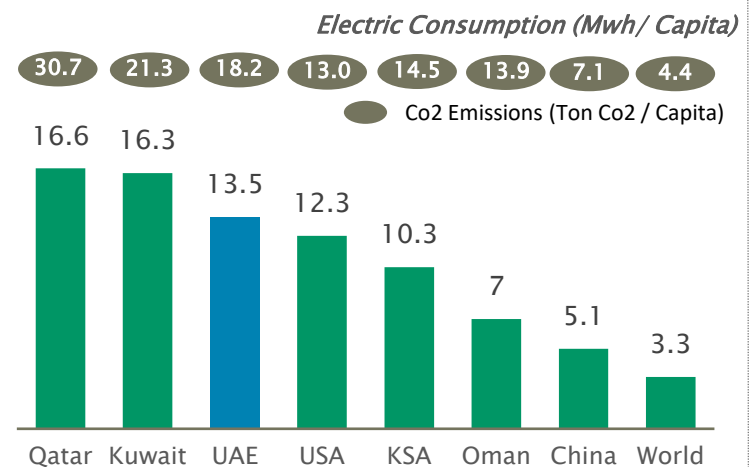


WORLD GREEN ECONOMY ORGANIZATION

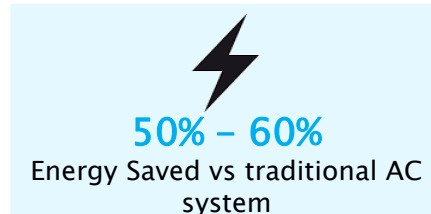
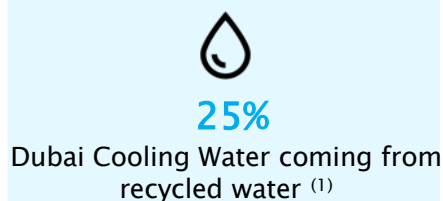
# District Cooling: A Primordial Utility in the Region...

## Fundamental Drivers to DC Adoption

- Year-round warm and humid climate results in GCC countries **being highly reliant on cooling solutions**
- Cooling is estimated to account for **60% to 70% of peak electricity load**
- Dubai's government set target of **30% reduction in energy demand by 2030**
- Efforts to improve energy efficiency and reduce Co2 emissions make district cooling the **most economically viable and sustainable solution**
- Dubai's population density set to continue rising given regional ambitions and **accelerated master planning development**



## Economic, Social and Environmental Benefits of District Cooling

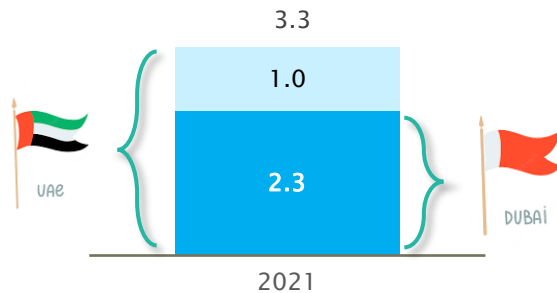


- District cooling saves up to c.50% energy** compared to conventional cooling
- Est. **c.50% reduction in Co2 emissions** versus traditional cooling
- Strong governmental push via the RSB and the creation of regulatory regime to **empower the use of district cooling services**
- Allows use of **recycled water and treated sewage effluent (TSE)** which are cost-efficient and more ecological (subject to availability)
- Additional comfort** by using industrial-grade equipment lowering visual and noise pollution
- Highly reliable system** with reliability rates above 99.99%
- Allows **scalability to implement new advanced technologies** such as thermal energy storage (TES), treated sewage effluent (TSE)
- Use of TES **reduces pressure on state-grid and peak load**

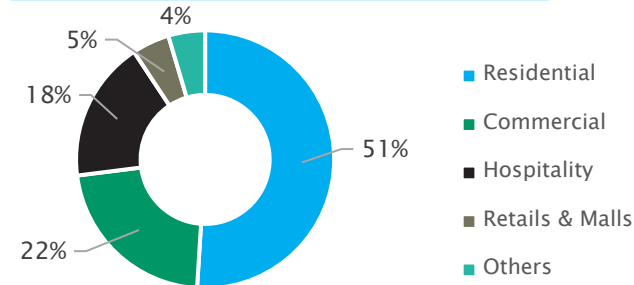
## ...Set for an Unprecedented Growth Outlook

### Dubai District Cooling Sector in Numbers

#### Installed Capacity (RT)



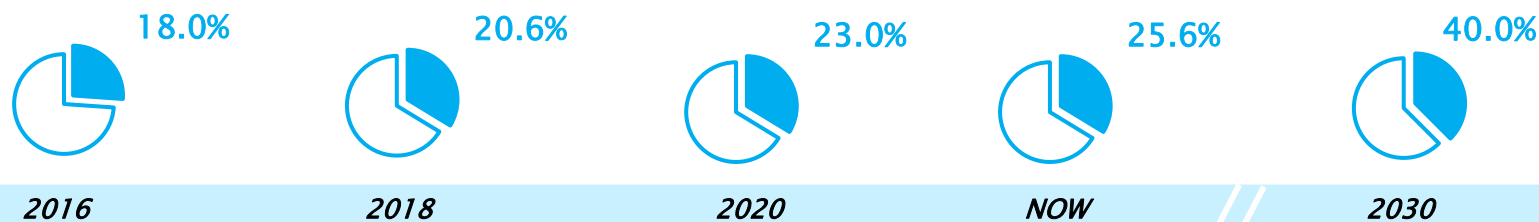
#### Dubai DC Market Share by Segment (%)



#### Estimated Cooling Demand Growth in Dubai



#### District Cooling Penetration rate evolution in Dubai



- ✓ Dubai: one of the **largest global markets for district cooling targeting 40% penetration by 2030**
- ✓ **A total of 844k RT** of connected capacity to come on the Dubai market over the next 6 years
- ✓ UAE district cooling demand growing at **high-single digits with major district cooling capacity increases expected**
- ✓ **Favourable technology for district cooling** supports increasing penetration rates

Despite expected growth in cooling capacity, the **market should remain underpenetrated**, allowing for **further industry growth**

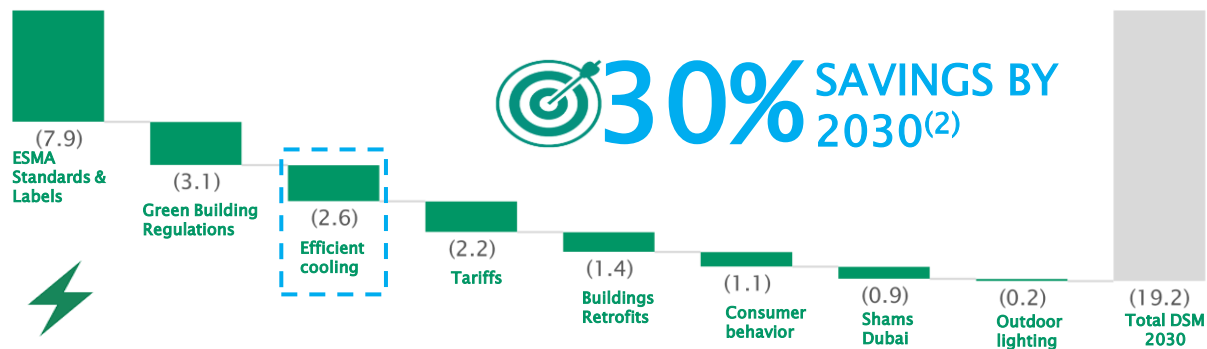
# Supportive Government Policy Towards District Cooling

## Dubai Demand Side Management (“DSM”) 2030

- ✓ District cooling is one of the key 11 pillars of the “**Dubai Integrated Energy Strategy 2030**” and “**Demand Side Management 2030**” issued in 2011
- ✓ Aim at building a green economy in the UAE and transform Dubai into a **global centre for clean energy**
- ✓ Targets set at **30% savings in electricity and water by 2030<sup>(2)</sup>**
- ✓ DC is expected to contribute **c. 13%** towards the DSM 2030 target in electricity savings
- ✓ For FY21 use of efficient cooling already generated electricity **savings above target by 41%**



Targeted electricity savings from DSM Programmes (TWh)



## Regulations and Implementations

**Well Established Authorities**



*The RSB is the regulator in charge of developing regulatory regime, extending DC Services & Billing licenses and permits in Dubai <sup>(1)</sup>*

*The SCE is the ultimate approval authority <sup>(1)</sup>*



*المجلس الأعلى للطاقة  
Supreme Council of Energy*

ASSOCIATION OF DISTRICT COOLING OPERATORS

**Supportive and Visionary Leadership**

*“...we developed a strategy to organise Dubai's district-cooling sector. This aims to improve the performance of operations, and enhance the amount of investments from 20% to 40% by 2030”*

**Saeed Mohammed Al Tayer**  
*Vice chairman of the Supreme Council of Energy*

**At the beacon of innovation**

*Since 2008, the Dubai Government mandated the use of thermal storage tanks for any DC plant > 10kRT capacity*

*Executive order encouraging the use of TSE water or seawater*

*Dubai has been named “Champion City” for its district cooling projects by the District Energy in Cities Initiative from the UN Environment Programme (UNEP)*

District cooling and the sustainable development of Dubai go hand-in-hand



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## 4. ESG: Sustainability Centric Business Model Enabling Dubai's Energy Transition

# EMPOWER Contribution to a Sustainable Net-Zero Future in the UAE

## The Region's Ambitious Sustainability Strategy



100%  
Net Zero by 2050



30%  
annual savings in  
Electricity by  
2030<sup>(8)</sup>

30%  
annual savings in  
Water by 2030<sup>(8)</sup>

To reduce the current energy consumption for cooling (c.70%<sup>(1)</sup>), Dubai targets to cover 40% of cooling demand with District Cooling by 2030

### Dubai's DSM Strategy progress in 2021

**Dubai** 6.4 bn kWh savings<sup>(2)</sup>

Compared to traditional cooling, EMPOWER estimates electricity saving of c.1.7 bn kWh in 2021<sup>(3)</sup>

## EMPOWER Supports Dubai's Demand Side Management Strategy (DSM)

EMPOWER is contributing to multiple pillars<sup>(6)</sup> of DSM to make Dubai a Role Model in Energy and Water Efficiency

**Pillar 2** **Building Retrofits**  
Enable increased energy efficiency in existing buildings



**Pillar 4** **Efficient Cooling**  
District cooling is key transition technology for the region



**Pillar 6** **Consumer Behaviour**  
Encourages responsible energy consumption to its consumers



**Pillar 9** **Recycled & Ground Water Demand Management**  
Increased TSE usage

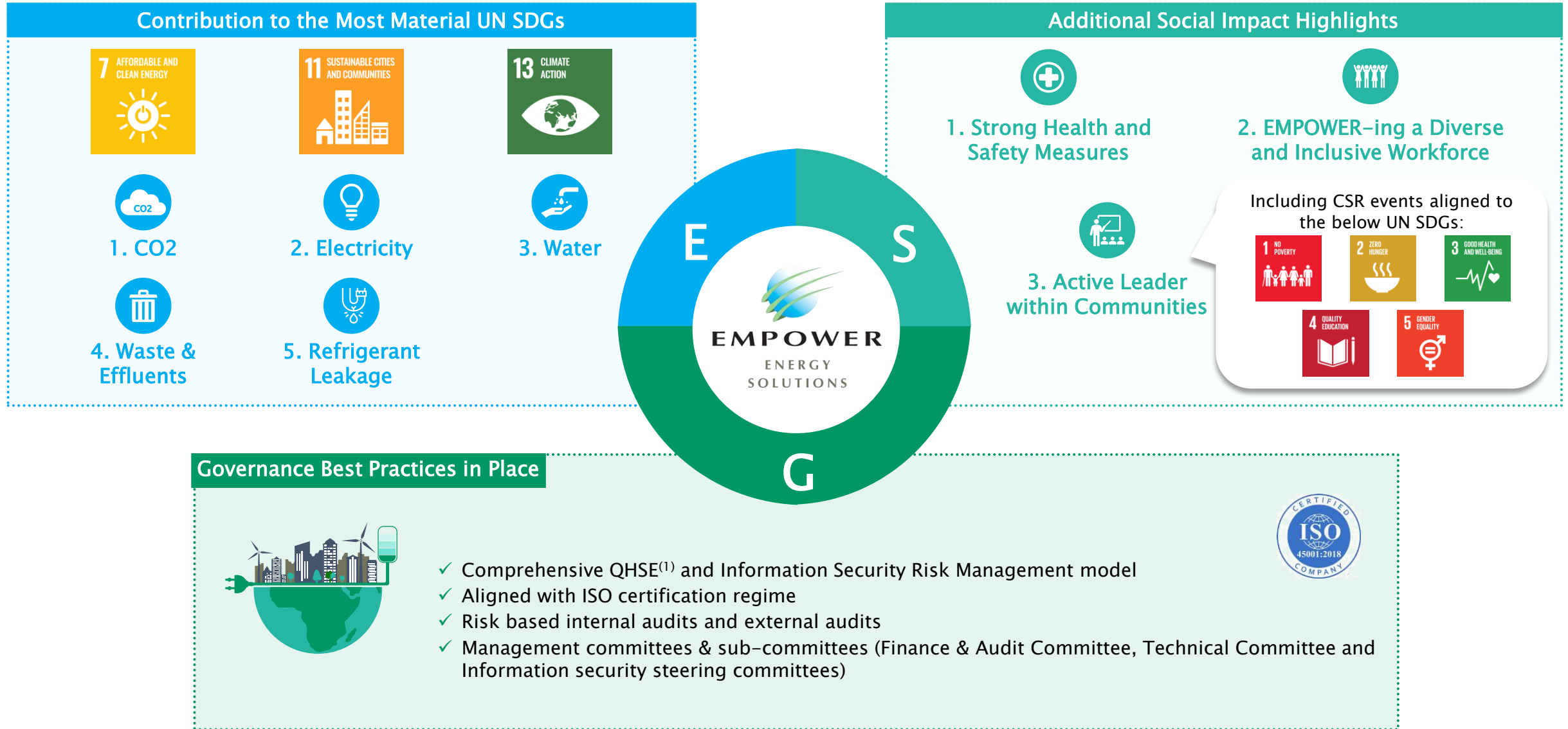


Sources: Company information. Supreme Council of Energy. UNEP

Notes: (1) In Dubai air conditioning represents over 70 per cent of electricity consumption. (2) By the end of 2021, the DSM Strategy implementation resulted in 6.4 bn kWh of annual electricity savings compared to business-as-usual consumption, which is the reference for the 30% by 2030 targets. (3) Calculations based on UN "Clean Development Mechanism" (CDM) methodology; Assuming conventional cooling electrical efficiency of 1.7 kW/ton and achieved DC efficiency of 0.9 kW/ton by EMPOWER in 2021. (4) Selected example. (5) Transaction pending closing. (6) Dubai's DSM plan consist of eleven pillars/programmes. Four of these are shown on this page. (7) JBR refers to Jumeirah Beach Residence. (8) Against BAU



# EMPOWER's Comprehensive ESG Profile



Sources: Company information. Supreme Council of Energy.  
Note: (1) QHSE refers to Quality, Health, Safety, and Environment.

# To Become a Leader in District Cooling By Achieving the Highest Contribution in ESG Parameters

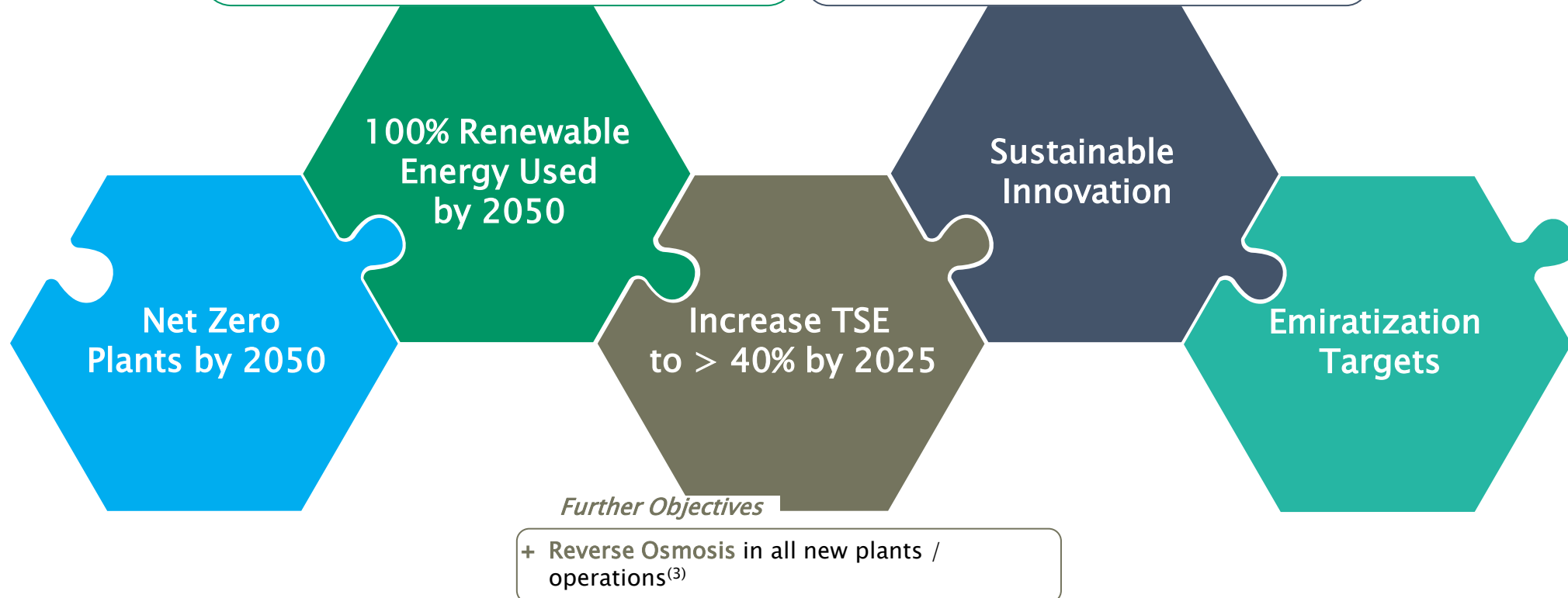
## EMPOWER's Strategic ESG Objectives

### Further Objectives

- + All future plants will feature energy **efficient pumps**
- + **100% usage of LED** in all facilities of EMPOWER
- + **Solar panels** as cladding of plants and warehouses

### Further Objectives

- + **Fire extinguishing: FM200<sup>(1)</sup>** of all DC plants to be replaced with Novec and Aerosol<sup>(2)</sup>
- + Support R&D to encourage more efficient district cooling systems



# Environmental Management Supported by Robust Systems

## Selected Environmental Achievements and Initiatives Supporting the Targets



### 1 CO2

- **CO2 savings** YoY c.17.7% in 2021 to 735k tCO2

- Pioneered identification of **CO2 reductions methodology**, approved by the UN

- **Leading energy efficiency** supports additional CO2 savings

- **Acquired plants** undergo **energy efficiency** improvement

- **Thermal storage** (“TES”) in permanent plants to **reduce peak-time pressure on state power-grid** by producing chilled water during off-peak hours

- Use of **Artificial Intelligence** to manage TES to reduce energy consumption



### 2 Electricity

- **Electricity savings** YoY c.17.7% in 2021 to 1.7bn kWh

- **Encouraging responsible behaviour** (e.g. Summer Campaign led to **savings of c. 5% energy usage** historically)

- **DC efficiency of 0.9 kW/ton** in 2021<sup>(1)</sup>



### 3 Water

- **TSE recycling sewage water** usage in 2021 of 12%

- **Water recovery of 65%** in 2021

- **c.41% more water savings** 2021 vs 2018 through increased water cycles<sup>(2)</sup>

- **Currently operating 7 reverse osmosis plants**, with 3 further plants commissioned for 2022



### 4 Waste & Effluents

- **100% of customers' bills** are sent online

- **Strict scrap process** promoting re-use before recycling

- Campaigns to **eradicate single-use plastic** and to minimise waste

- **Waste minimization efforts**, such as electronic devices donation

- Continuous monitoring of effluent parameters



### 5 Refrigerant Leakage

- Installed refrigerant leakage detection system to **reduce leakage**

- **Systematic control to reduce spillage** with usage and refrigerant top up monitored

Legend:

**Quantifiable Achievements**

**Initiatives**

## Social Impact Contribution for Employees and Communities

1

### Strong Health and Safety Measures for Employees

- ✓ **Health and Safety training** to all staff: 516 trainings to 4,654 attendees<sup>(1)</sup> in 2021
- ✓ Holistic OH&S risk management: 1) Project specific risk assessment; 2) Project effective **permit-to-work implementation** across all plants. In addition, there are HSE committee meetings, project safety walk through and emergency drills
- ✓ **Systematic QHSE Internal audit** across all the plants once in a year
- ✓ **Zero Lost Time Injury (LTI)** in 2021

2

### EMPOWER-ing a Diverse and Inclusive Workforce

- ✓ **Employee development program** for all staff<sup>(2)</sup>, including leadership development, team building, communication skills
- ✓ **Diverse workforce** with 30 nationalities
  - ✓ **Women represent 16.2% of management positions** (21.4% overall at head office)
- ✓ Joined DEWA's '**Inclusion People Of Determination Innovation Incubator**' program<sup>(3)</sup>
- ✓ **Emiratisation** with dedicated mentoring system in place
  - ✓ 33.3% Emiratis at the head office in 2021
  - ✓ EMPOWER-ing Emirati women

3

### Active Leader within Communities

- ✓ **Corporate Social Responsibility events:**
  - ✓ 373 events organised since 2008<sup>(5)</sup> (63<sup>(4)</sup> in 2021)
  - ✓ >100 employees in 2021, incl. top management, participated in those events aligned with:
- ✓ **Advanced CSR label** from Dubai Chamber Sustainability Network **4x in a row**<sup>(5)</sup>





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## **5. Management & Operations: Best-in-class Expertise With Next-Gen Technology Disrupting Cooling**

## Proprietary and World Class Integrated End-to-End Solutions



### Design

- **Unique modular approach** to project
- **Cost-effective and in-house design** of Energy Transfer Stations (ETS) and heating exchangers



### Procure & Build

- **Rapid deployment capabilities** for pipe network construction with **in-house project management**, and **construction teams**
- **Deep relationship with key suppliers** (e.g. chiller manufacturers)



### Operation & Maintenance

- **In-house dedicated 24/7 plant operators**
- **Computerized maintenance management systems** for planning, execution and monitoring in real time
- Ability to provide **emergency solutions** (e.g. mobile chillers)
- **Selective application of AI** to enhance performance



### Command & Control Centre

- **State-of-the-art command and control centre (CCC)** offering a **technology platform** to **remotely monitor and control** plant operations 24/7
- The CCC will ensure **equipment's performance**, enhance **service reliability** and ensure **compliance** with agreed upon thresholds on a real time basis



### Metering & Billing solutions

- **100% smart meters**
- **Complete metering and sub-metering solutions**
- **Potential future demand site response capabilities**
- **End-to-end billing solutions**



### Customer Care

- **Customer Care Centres and call centres** for handling customers' service requests
- **Multiple payment channels and gateways**

### Highlight

Low Cost Modular Approach

In-house Project Management

Computerized Maintenance

Best-in-class Command and Control Centre

Full Deployment of Smart Meters

Multi-channel Customer Care

### In-house Capability



# Best in Class Operational Expertise with Dedicated O&M Team

## Fully Integrated Operations Supporting EMPOWER 24/7

### Operations

- ✓ Dedicated in-house O&M team
- ✓ 24/7 real time performance monitoring through SCADA
- ✓ World's largest District Cooling Command and Control Centre (CCC)
- ✓ Parallel Working Environment to cover in case of any interruption of service at CCC



### Planning (Enhance & Build Systems and Processes)

- ✓ Processes and procedures to further optimize business
- ✓ End-to-end process automation
- ✓ World class assets and maintenance management
- ✓ Monitoring systems, departmental service level agreements and controls



### Maintenance

- ✓ Maintenance scheduled during off-peak season to avoid service disruption
- ✓ Preventative maintenance through 5 categories:
  - Mechanical
  - Electrical
  - Instrument & Control
  - Network
  - Metering
- ✓ 24/7 emergency response coverage



### Backup Solutions in Case of Breakdown

- ✓ Fleet of fast response vehicles ready for quick action in case of emergency
- ✓ Temporary solution chillers loaded on specialized trucks
- ✓ Logistics and transportation readily available on 24/7 basis
- ✓ Stand-by 3rd party agreement for critical emergency services



### Initiatives and Training

- ✓ TSE<sup>(1)</sup> and smart metering system
- ✓ Carbon credit framework for District Cooling
- ✓ ASHRAE<sup>(2)</sup> design guideline for District cooling
- ✓ UNEP<sup>(3)</sup> participation for district cooling promotion
- ✓ Technical, safety and soft skills trainings conducted yearly



# World's Largest Command and Control Centre for District Cooling

Delivering Secure and Reliable Services to an Ever-Expanding Customer Base

- ✓ EMPOWER's **Command and Control Centre (CCC)** provides a holistic view on all activities in all plants, buildings and unit levels, from the plant efficiency to consumer consumption patterns
- ✓ The CCC functions on top of a **virtualized IT environment and Programmable Logic Controls systems as well as SCADA**
- ✓ The technology enables the **tracking of operations across the entirety of EMPOWER's district cooling network**
- ✓ **Information on demand, supply and consumption is available instantaneously**
- ✓ The CCC is duplicated as **PWE<sup>(1)</sup> to retain remote operation of the plants** in case of any unforeseen circumstances, such as COVID-19, through which there was zero interruption of service



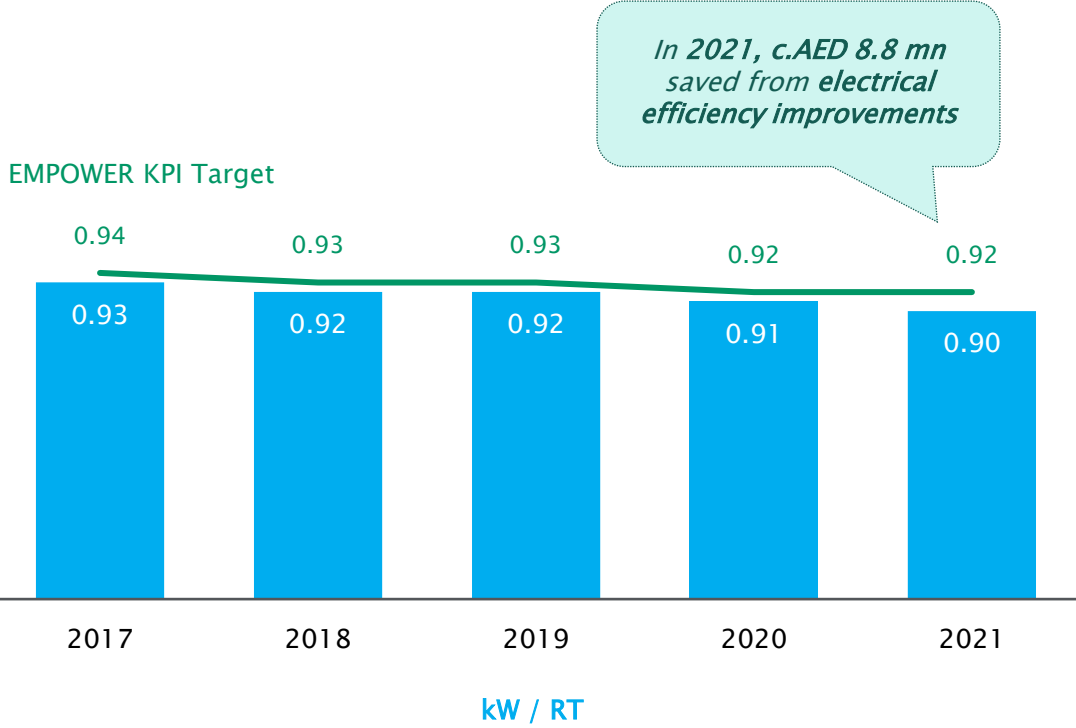
EMPOWER's Command and Control Centre can track, monitor and control up to a million parameters on a real time basis across its district cooling network, a first of its kind



# EMPOWER Continues to Introduce Innovative Efficiency Driven Measures Into its Operations

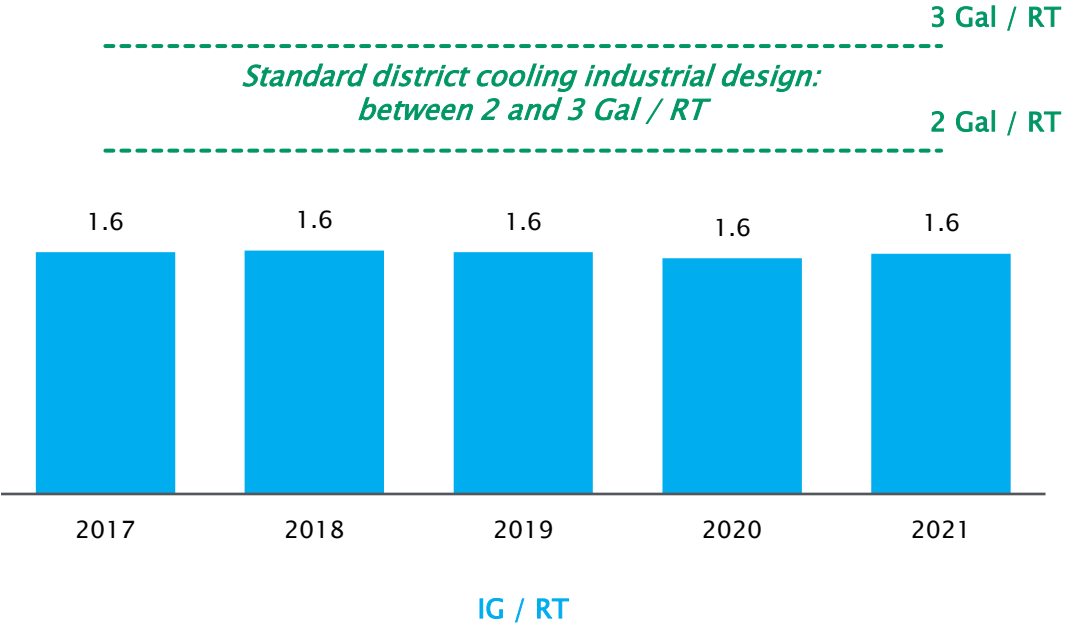
## Continued Improvement in Electrical Efficiency Driving Savings

- EMPOWER has been **consistently overachieving the company's targets** in terms of electricity usage KW/RT
- Reflects **ongoing initiatives to save on energy** with **c.0.02 TWh** saved in 2021 equivalent to **AED 8.8 mn**



## Water Efficiency Well Above Standard Industrial Design

- EMPOWER continues to integrate **additional water conservation into operations**
- Current water efficiency KPIs indicate an optimal level of water efficiency with **reverse osmosis treatment processes** contributing to consistently lowering the water consumption / RT vs. industrial design



Source: Company information.

# Innovative Smart Metering Covering 100% of EMPOWER's Customer Base

## Overview

- ✓ Started metering in 2007, and implemented **smart metering** in 2014, the Metering Data Management System (MDMS), improving **efficiency**, mitigating **production losses** and **detecting faults**
- ✓ By 2017, **all existing meters were upgraded to smart meters in EMPOWER's networks**

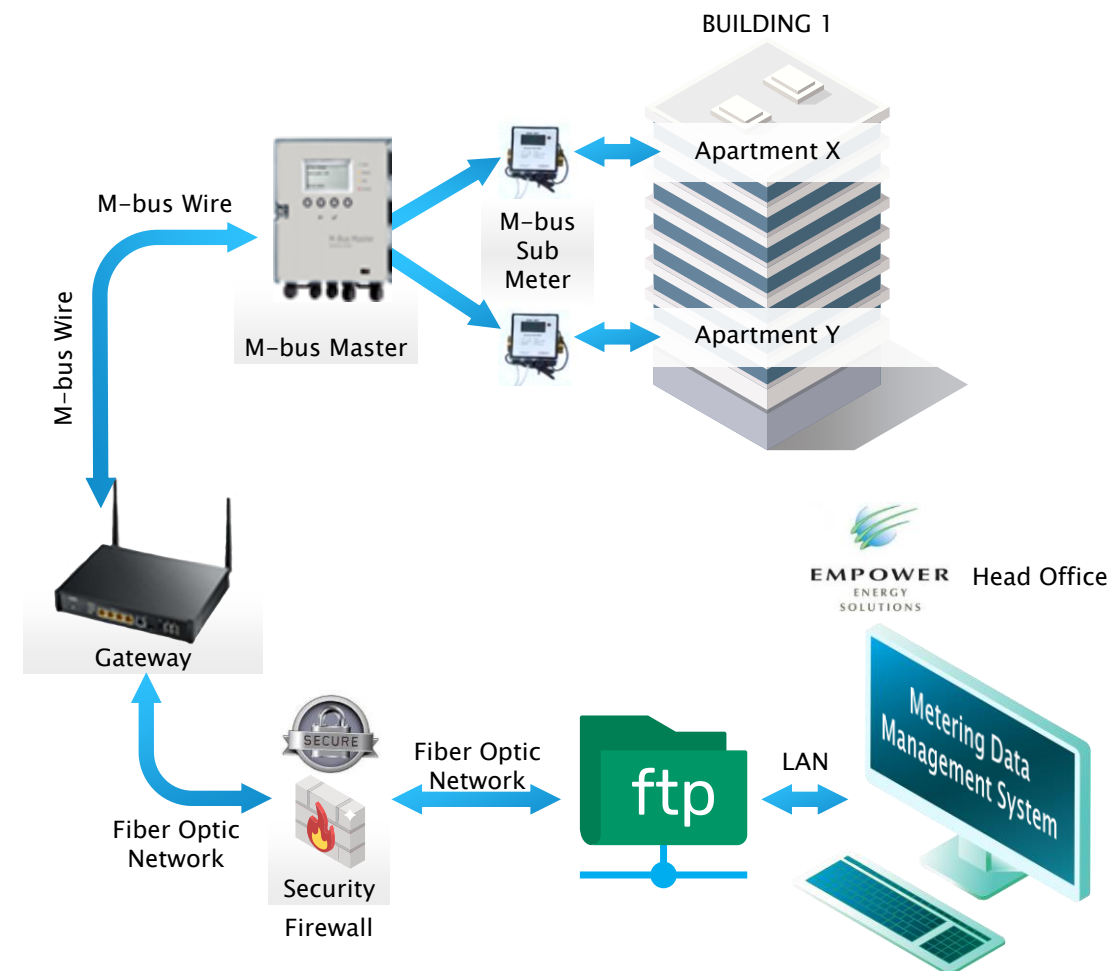
## Metering Data Management System

- ✓ Smart Metering Solution which transforms manual collection of field meter readings to **eliminate human-based data collection activities**
- ✓ Meters at the site are connected for **remote and instantaneous meter reading**, transmitted through connected platforms

## Key Advantages

- ✓ **Reduces costs** and prevents **production losses**
- ✓ **Simplifies** metering process and early fault detection features
- ✓ Enhances **accuracy** and **efficiency** of operations

## Metering Data Management System (MDMS)



# Maximizing the Use of Recycled Water to Increase Savings and System Efficiency

## Use of Recycled Water in Operations Leading to Cost Savings and More Environmentally Friendly Operations



### Minimizing the use of water from DEWA...

- Fresh domestic water produced using water desalination is distributed throughout the Emirate of Dubai



### Key Advantages of Using TSE Water vs Fresh Domestic Water

- ✓ Significant reduction in capital and operational costs
- ✓ Environmentally-friendly solution reducing the demand for fresh domestic water
- ✓ TSE water is c. 10x cheaper than the cost of fresh domestic water in Dubai



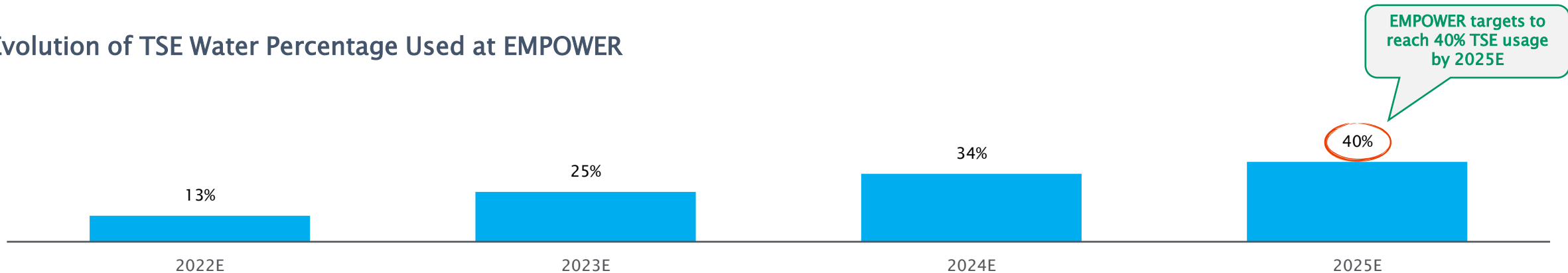
### ... By Using TSE<sup>(1)</sup> Supplied by Dubai Municipality

- Reverse osmosis polished TSE Water is used to reduce the amount of domestic water in the district cooling operation



*EMPOWER is liaising with the Dubai Municipality to continue developing the necessary infrastructure to be supplied with TSE water*

## Evolution of TSE Water Percentage Used at EMPOWER



Source: Company information. Note: (1) Treated sewage effluent.

# Superior Asset Management Framework Backed by Tier 1 Digital Infrastructure

## IT Systems Supporting Operations



- ✓ Maximo System is deployed for asset management, maintenance and all related procurement and inventory management



- ✓ Internally developed **workforce utilization and management system** (time tracker, timesheet and overtime system) to track and monitor man-hour, shift schedule and overtime



- ✓ Internally developed **workflow system for business process management system and customer complaint ticketing system developed internally** notably built for Dubai airport with the possibility to be used for other key customers

- ✓ Well recognised **Qlik Dashboard business intelligence system** for enhancing reporting efficiency and providing real time information to management to monitor all key metrics

- ✓ ZorroSign deployed through block-chain technology for superior privacy and security for digital signatures and transactions

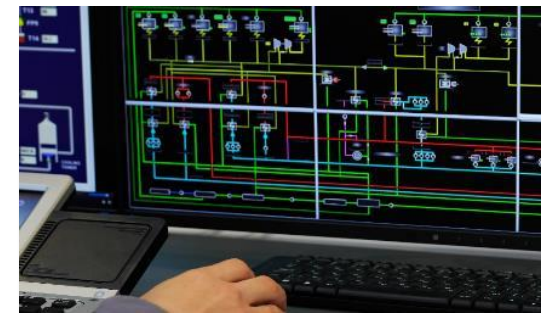


- ✓ Oracle deployed for financial accounting management

## Superior Operational Systems



EMPOWER's Command and Control Centre



SCADA System



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**6. Financials: Resilient, Predictable and Growing  
Financial Profile Supported By a Favourable Business Model**

# A Unique Business Model that Harnesses Captive Demand



**Captive Pools of Demand**

EMPOWER's infrastructure-based business model harnesses captive demand pools through long-term exclusive agreements with master developers and highly visible revenues streams with limited variability

## Services Provided

## Captive Demand Drivers



- Build & construct district cooling infrastructure
- Connect buildings to the plant



- Operations and maintenance



- Total metering solution
- Billing system
- Customer service



- High barriers to entry due to long-term contracts (25+ yrs)
- Perpetual renewal clauses



- Significant market share of c.80%<sup>(1)</sup>
- Fixed fees are charged and collected regardless of usage



- Restriction on transfer of real estate property if dues are unpaid to EMPOWER

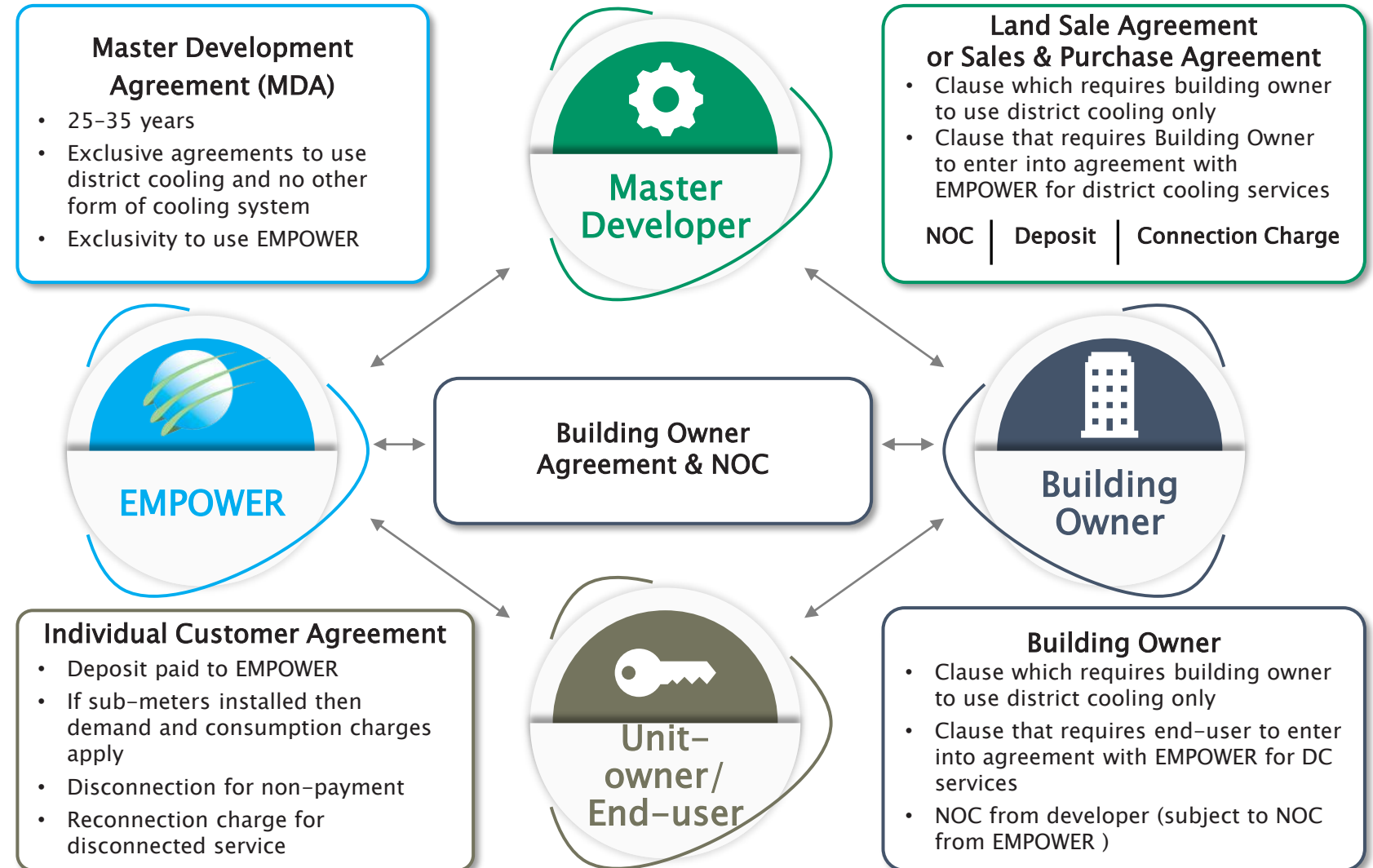
## EMPOWER Robust Contractual Framework

### The Company receives payments in the form of:

- A demand charge and a consumption charge from any owner and/or developer, including the district developer, of a building within the relevant district
- A demand charge and/or consumption charge from any owner, tenant or occupier of an individual unit in any building within such district
- Once the company delivers the full site demand load on the mutually agreed date, it also has the right to charge a “shortfall” demand charge payable by the Master Developer each year for the difference between the aggregate building demand load and the total demand load for the Site.

### Tariff Structure

- **Capacity** (fixed, AED/RT) – Covers EMPOWER's Capex spent
- **Consumption** (variable, AED/RTh) – Covers variable costs of EMPOWER (e.g. increases in electricity & water costs)
- **Other charges** include connection charge, temperature surcharge, meter maintenance and others



## Strong, Resilient, Predictable and Growing Financial Profile

### Robust and consistent revenue growth

- Fundamentally attractive and fast-growing market driven by strong macro fundamentals and favourable policy
- Revenue growth driven by RT capacity additions in existing concessions exclusive to Empower and demand growth
- Successful track-record of growth through project acquisitions

**8.9%**  
RT CAGR  
(19-21A)

**6.1%**  
Revenue CAGR  
(19-21A)

**12-13%<sup>(6)</sup>**  
YoY Revenue Growth  
(22E)

**6.5-7.5%**  
Revenue CAGR  
(Mid-Term Target)

### High profitability with healthy and stable margins

- Inflation linked revenue with pass-through utilities costs
- EBITDA margin consistently above 48%

**49.5%**  
EBITDA Margin  
(Avg. 19-21A)

**6.6%**  
EBITDA CAGR  
(19-21A)

**48-50%**  
EBITDA Margin  
(Mid-Term Target)

### Strong Cash Flow Visibility

- Long-term contractual framework with large fixed capacity charge component and inelasticity of demand
- Efficient growth capex ratio of AED 4-6m per k RT

**25+ Years**  
Long-Term Contracted  
Revenue

**38%<sup>(1)</sup> | 77%<sup>(2)</sup>**  
Fixed Charge  
% Revenue | % Adj. EBITDA  
(Avg. 19-21A)

**100%**  
Cash Conversion Ratio<sup>(3)</sup>  
(Avg. 19-21A)

### Prudent Capital Structure Providing Headroom for Growth and Investment

- Robust balance sheet with moderate leverage profile well below peers; gradual de-leveraging to c.2.5x in 2025 and below 2.0x in the medium term
- Significant headroom to fund inorganic growth while maintaining a healthy leverage ratio range of 3-4x

**0.5x**  
Net Debt / Adj. EBITDA  
2021A<sup>(4)</sup>

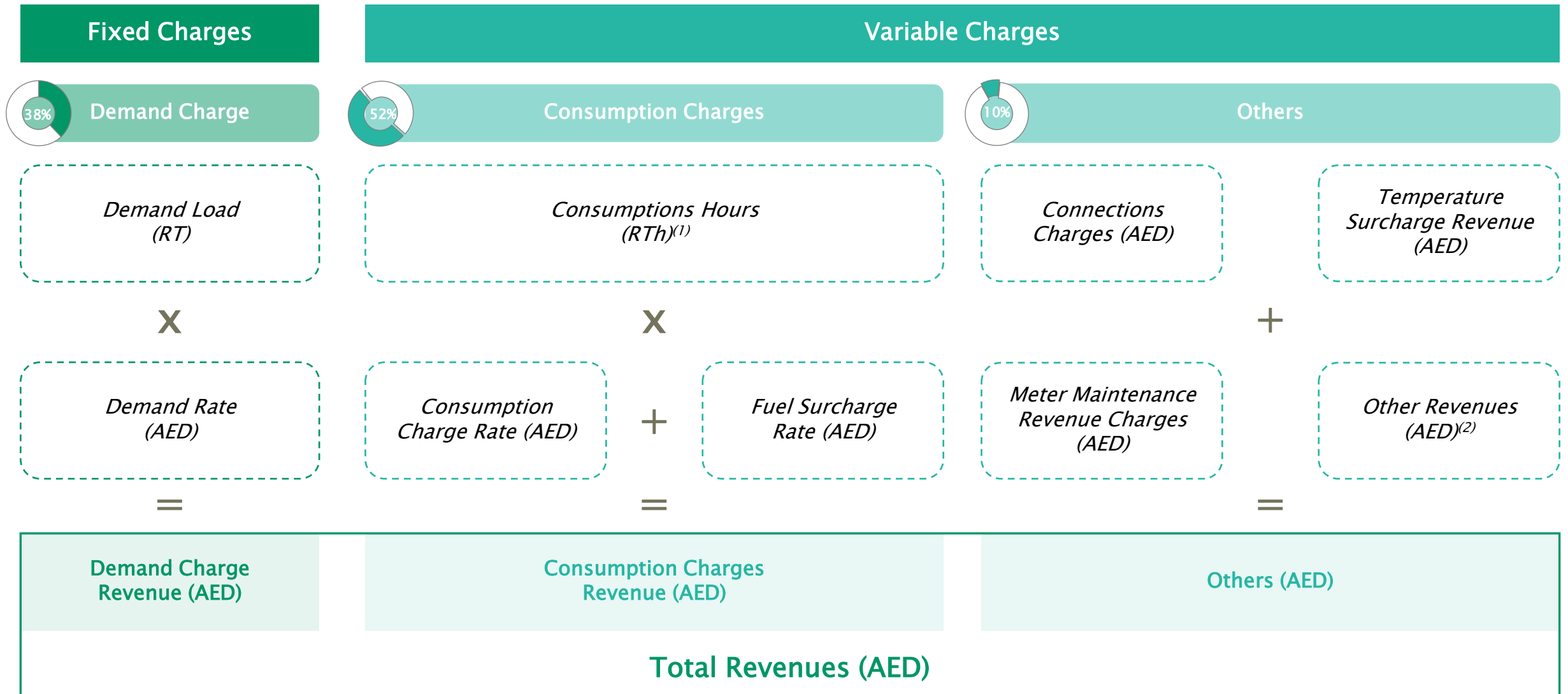


**3.5x<sup>(5)</sup>**  
Net Debt / Adj. EBITDA  
2022E

Source: Company information. Note: (1) Calculated as: average (2019-2021A) of demand charge revenue / total revenue. (2) Calculated as: average of (2019-2021A) demand charge revenue / Adjusted EBITDA. (3) Calculated as: average (2019-2021A) net cash generated from operating activities / Adjusted EBITDA. (4) Calculated as net debt (bank borrowing (current and non-current) - cash and cash equivalents - term deposits) / Adjusted EBITDA. (5) 2022 year end estimates for net debt / Adjusted EBITDA. Company is currently undergoing refinancing efforts. Refer to Adjusted EBITDA reconciliation in appendix. (6) Revenue growth in 2022 without the Dubai Airport district cooling assets acquisition expected to be in high single digits.



# 90% of Revenue Covered by Fixed Capacity Payments and Pass Through Consumption Charges

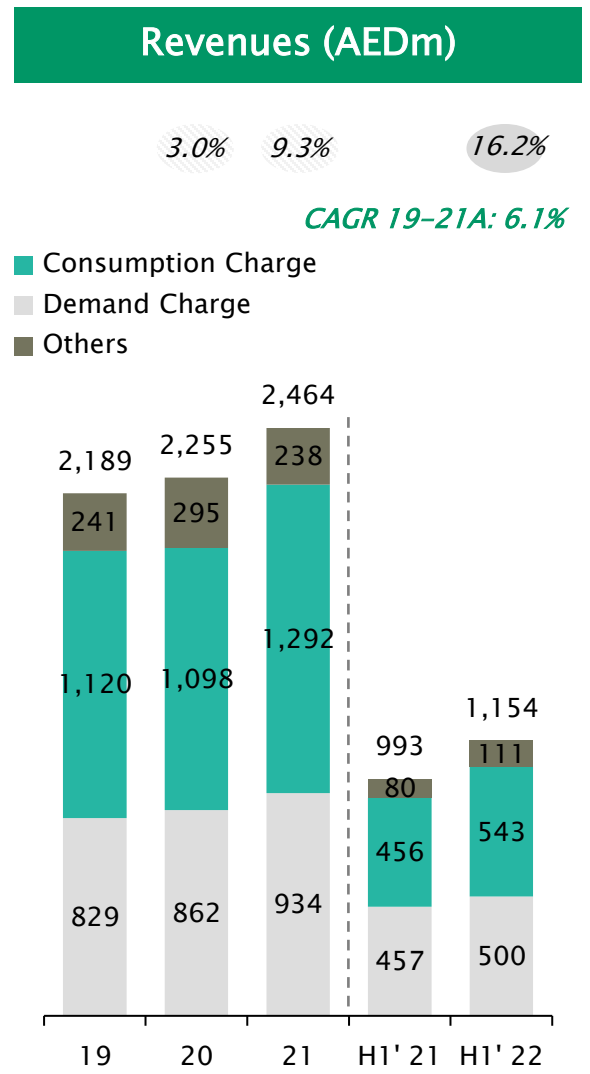
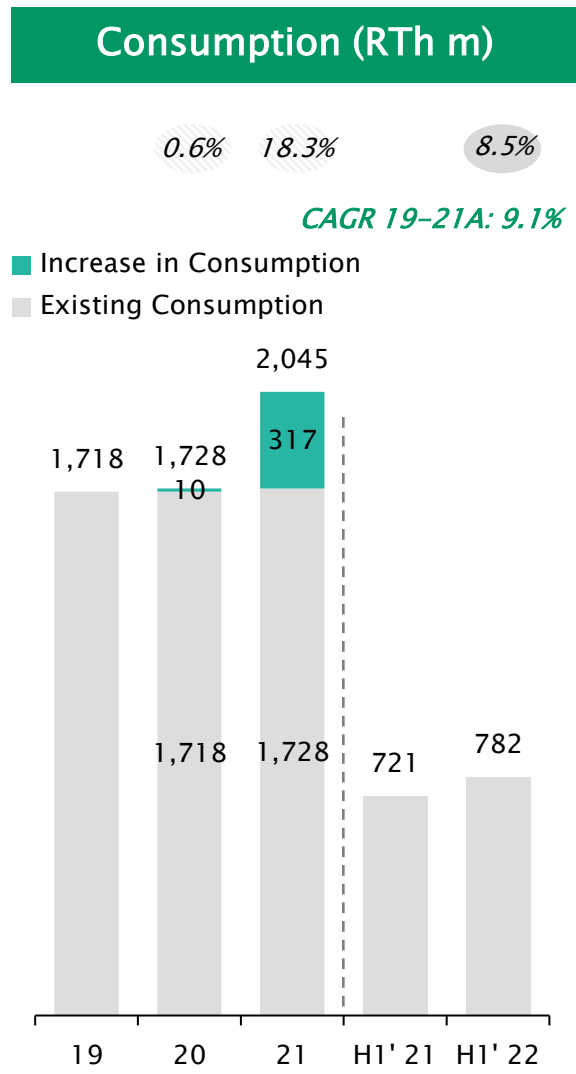
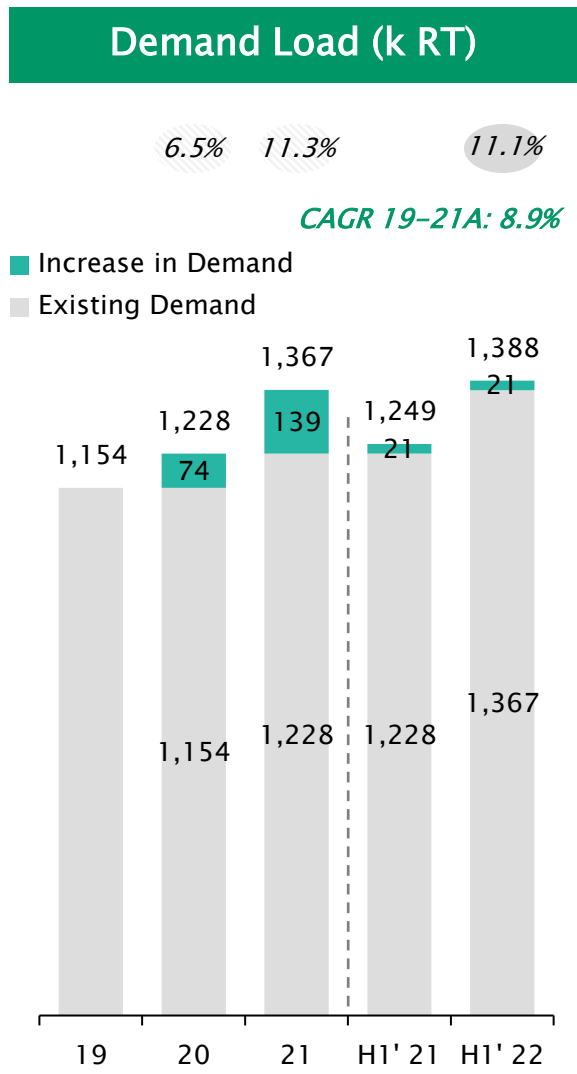


Source: Company information. Note: (1) Consumption hours calculated as : Consumption Load (RT) x Equivalent Full Load Hours (EFLH) Units. (2) Other revenues include: rental charges, unit owner connection charge, disconnection charges, and pre-insulated pipe sales.



# Consistent Top Line Growth Following Capacity Additions

- Demand load growing at 8.9% CAGR over 2019–2021 adding an average of 100k RT per annum
- Consumption grew in-line with load growth despite reduction in 2020 (driven by Covid-19), recovered in 2021
- Resiliency of revenue mix through the cycle with 6.1% CAGR in 2019–2021 despite impact on demand from Covid-19
- H2 typically exhibits higher demand on the back of increased consumption due to seasonality (i.e. warmer weather in H2)
- Demand charge represents 38% of revenue p.a.



YoY Growth %

Source: Company information.

## Historical Income Statement Analysis & Mid-Term Targets

AED m	2019A	2020A	2021A	H1 21	H1 22	2022E Targets	Mid-Term Target
<i>Connected Capacity (k RT)</i>	1,154	1,228	1,367	1,249	1,388	1,489	1,858+
<i>Consumption (RTh m)</i>	1,718	1,728	2,045	721	782	2,450+	3,350+
<i>EFLH (hours) - Average Load</i>	1,557	1,451	1,575	582	584	1,700+	1,800+
<b>Revenue</b>	<b>2,189</b>	<b>2,255</b>	<b>2,464</b>	<b>993</b>	<b>1,154</b>	12–13% YoY Growth <sup>(5)</sup>	CAGR 6.5–7.5%
<b>COS<sup>(1)</sup></b>	<b>968</b>	<b>932</b>	<b>1,090</b>	<b>372</b>	<b>454</b>		
<b>G&amp;A Expense<sup>(2)</sup></b>	<b>161</b>	<b>167</b>	<b>168</b>	<b>88</b>	<b>100</b>		
<b>Adj. EBITDA<sup>(3)</sup></b>	<b>1,060</b>	<b>1,156</b>	<b>1,204</b>	<b>533</b>	<b>600</b>		
<i>Margin %</i>	48.4%	51.3%	48.9%	53.7%	52.0%		48–50%
<b>EBIT</b>	<b>799</b>	<b>864</b>	<b>894</b>	<b>381</b>	<b>435</b>		
<i>Margin %</i>	36.5%	38.3%	36.3%	38.4%	37.7%		
<b>Net Profit</b>	<b>871</b>	<b>901</b>	<b>936</b>	<b>389</b>	<b>432</b>		
<i>Margin %</i>	39.8%	40.0%	38.0%	39.2%	37.4%		
<b>Capex</b>	<b>677</b>	<b>775</b>	<b>1,240</b>	<b>315</b>	<b>221</b>	← AED 4–6m / k RT →	
<i>Organic</i>	677	775	572	315	221		
<i>Inorganic</i>	-	-	668	-	-		

### Commentary

- **Connected Capacity:** c. 140k increase in connected capacity in FY 2021 includes additional capacity from the acquisition of Nakheel's district cooling assets
- **Revenue:** Comprises of capacity, consumption and other charges; grew at a CAGR of 6.1% (FY 2019–21) on the back of increase in connected capacity and improvement in EFLH profile
- **COS:** Utilities (majority provided by DEWA) accounted for 90% of COGS in FY 2021
- **G&A:** Staff costs accounted for c. 80% of G&A expenses in FY 2021
- **Capex<sup>(4)</sup>:** AED 2.7bn invested between FY 2019–21 (AED 2.0bn organic and AED 0.7bn inorganic)

### 2022 Targets and Mid-Term Targets

- **Connected Capacity & Revenue Growth:**
  - **FY 2022E:** Significant YoY growth in revenue (12%–13%) and capacity expected, fully reflective of the Nakheel's district cooling assets acquisition
  - **Mid-Term Target:** Connected capacity is expected to reach above 1.8m RT and revenues to grow at a CAGR of 6.5–7.5% in the mid-term driven by higher demand and consolidation of the contemplated acquisition of Dubai Airport's district cooling assets
  - Full impact of **Dubai Airport district cooling assets acquisition expected to result in low double digit revenue growth** in FY 2023 vs FY 2022
- **Equivalent Full-Load Hour (EFLH):** expected to grow from c. 1,500 (FY 2021) to 1,800+ in the mid-term given the changing customer mix (increasing number of commercial customers – i.e. Dubai Airport with 24/7 operations)
- **EBITDA:** EBITDA margin is expected to be in the range of 48%–50% in the mid-term

Source: Company information. Notes: (1) Excludes depreciation of property, plant and equipment, depreciation of right-of-use assets, amortization of intangible assets, and impairment reversal of project cost and includes; utilities cost, direct staff costs, materials cost, and others. (2) Excludes depreciation of property, plant and equipment and depreciation of right-of-use assets, and includes; indirect staff costs, directors remuneration, consultancy and communication expenses, advertising & marketing expenses, rent expense, business travel expense and others. (3) Adjusted EBITDA excludes impairment reversal of project cost, and other income (refer to Adjusted EBITDA reconciliation in appendix). (4) Includes: purchase of property, plant and equipment, net of project cost accruals, and acquisition of subsidiary. (5) Revenue growth in 2022 without the Dubai Airport district cooling assets acquisition expected to be in high single digits.

## Multiple Growth Avenues



### Secured Growth from Dubai Master Developments

**Secured growth** from connecting additional RT capacity in **existing master development projects**

Estimated >370k RT for 2022–2027E and c.1.5m RT currently contracted vs. 3m RT total site capacities

*Target guidance covers near to medium term additions / excludes medium to long-term additions*

A



### Adjacent Expansion and Retrofitting of Existing Systems

Multiple examples of **adjacent expansions and retrofitting**

- Retrofitting examples: Emirates towers, Jumeirah Beach hotels and Madinat Jumeirah
- Adjacent Expansion example: Coca-Cola Arena

B



### New Projects, Master Developments and Vertical Integration

**Preferred partner** for Dubai Holdings and Nakheel and new joint ventures such as ELIPS

*Estimates not included as part of forward looking target guidance*

C



### Inorganic Opportunities

Continue to **lead market consolidation in Dubai**, with acquisitions of **assets and other platforms** (recent examples: Meydan, Nakheel district cooling assets and Dubai Airport district cooling assets<sup>(1)</sup>)

D



### International and Regional Expansion

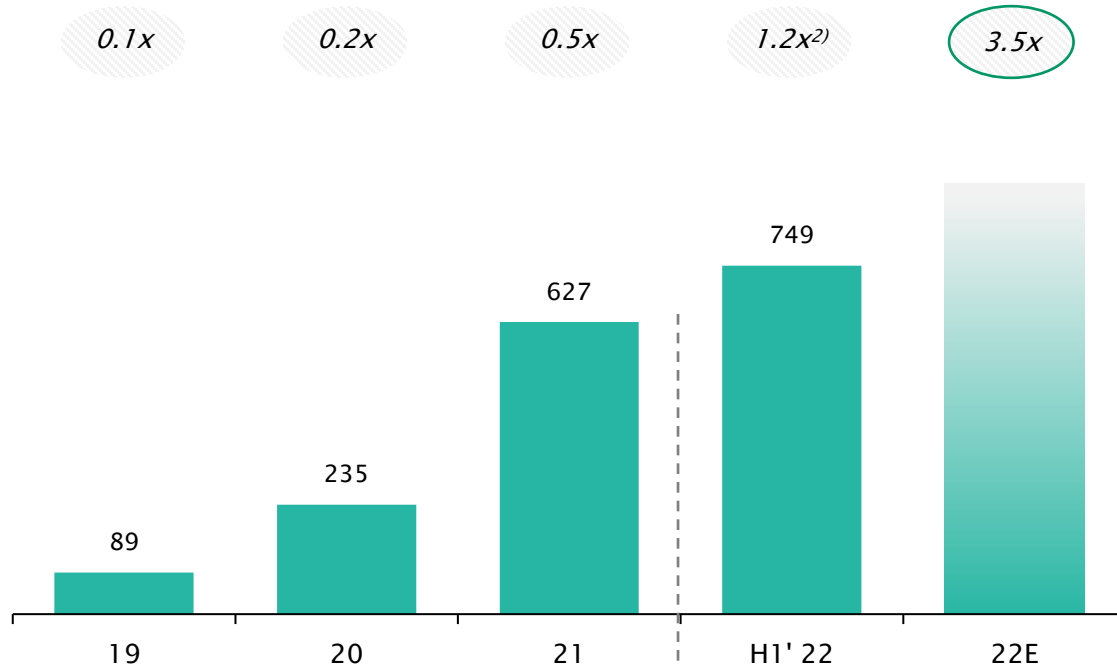
Deploy **expertise in neighbouring markets** with significant **potential** (focus on GCC region)

E

## Prudent Leverage Underpinning an Attractive Dividend Proposition

### Net Debt (AEDm)

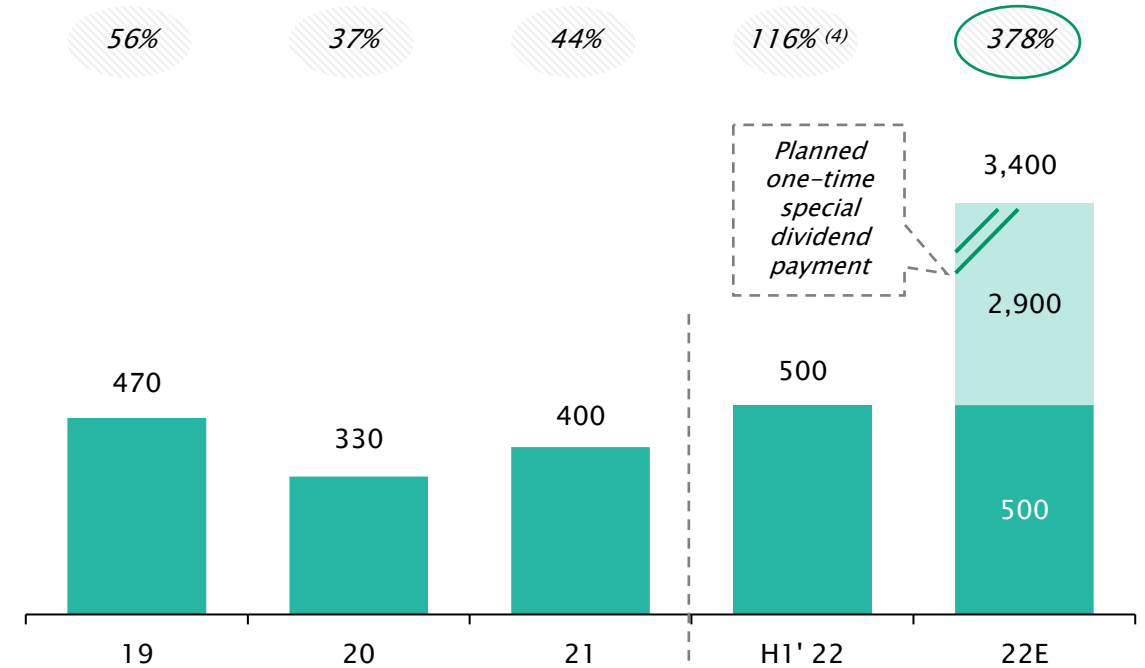
Net Debt / Adjusted EBITDA<sup>(1)</sup>



- Robust balance sheet with moderate leverage profile well below peers; gradual de-leveraging to c.2.5x in 2025 and below 2.0x in the medium term
- Significant headroom to fund inorganic growth while maintaining a healthy leverage ratio range of 3–4x
- Refinancing expected to be finalized by year end

### Dividend Payments (AEDm)

Dividend Payout Ratio %<sup>(3)</sup>



- Consistent track record of dividend payment to shareholders of AED 400m on average in 2019–2021
- One-time special dividend expected to be paid in 2022 which will be financed via the issuance of new debt, efforts for which are currently underway



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An aerial photograph of a city, likely Dubai, showing a dense residential area with a winding canal in the foreground and a prominent skyline of skyscrapers in the background under a clear blue sky.

## **7. Growth: Well Positioned to Capture Growth Opportunities in the UAE and Beyond**

# EMPOWER Is Set to Benefit From Multiple Growth Avenues, Organically and Inorganically

## Organic Growth Avenues

### A Secured Growth from Dubai Master Developments

- **Highly secure growth** backed by **agreements** with master developments
- **>370k RT additions** expected 2022E–2027E
- Key areas: Business Bay, Jumeirah Village South, Dubailand, Meydan
- 1.5m RTs contracted vs. 3mn RTs total site capacities

### B Adjacent Expansion and Retrofitting of Existing Systems

- Leverage on **existing infrastructure** to **expand** and **connect adjacent projects** to EMPOWER's network
- Recent examples: Jumeirah Beach Group Hotels, Madinat Jumeirah (20k RT<sup>(1)</sup> and 10k RT<sup>(1)</sup> to come), JBR (20k RT<sup>(1)</sup>, 2016), Bluewaters (25k RT) and Emirates Towers from DIFC (5k RT<sup>(1)</sup>, 2015) (retrofitting)

### C New Projects, Master Developments and Vertical Integration

- EMPOWER as **preferred DC services provider** for **new projects** from Dubai Holding and Nakheel
- **Unannounced new projects** or **to be developed** (e.g. Dubai Health)
- Ability to **leverage** EMPOWER's **capabilities** and **supply chain relationships** for **further vertical integration** (e.g. ELIPS)

## D Inorganic Opportunities

### Consolidation Opportunities and Large Scale Acquisitions

- Build on EMPOWER's **long-standing M&A track record** with examples such as Palm Utilities, Nakheel and the Dubai Airport district cooling assets
- **Seasoned M&A team** with **experience in executing sector transactions** and **driving consolidation**

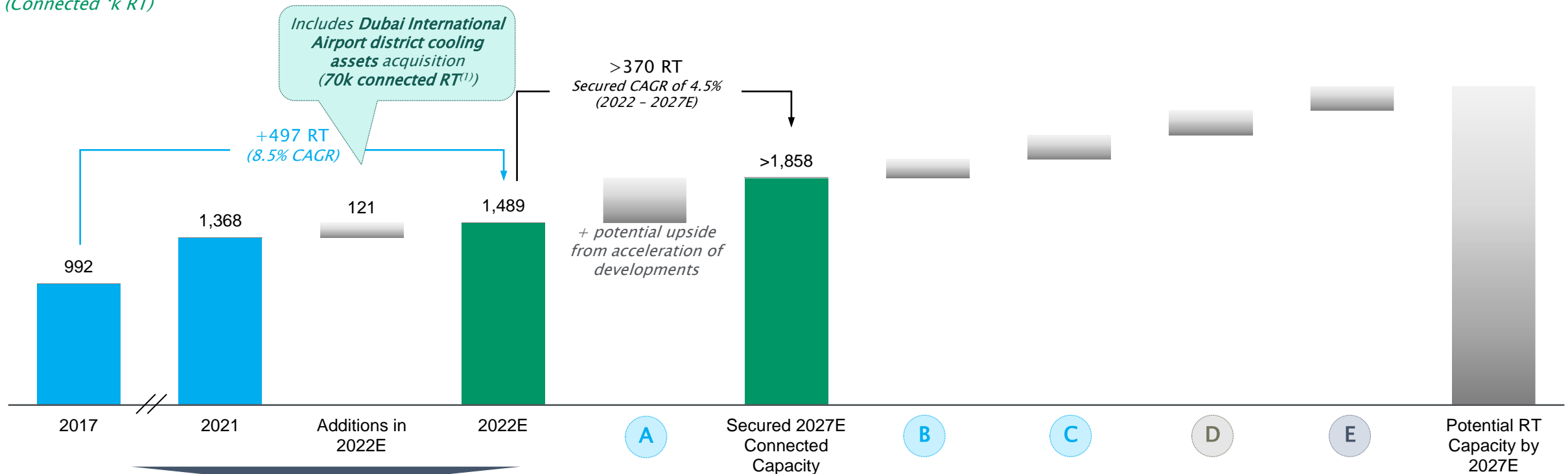
## E International and Regional Expansion

- Well positioned for regional expansion in nearby markets with a strong economic and social case for district cooling, mainly in the GCC and certain MENA countries (e.g. KSA, Qatar and Egypt)

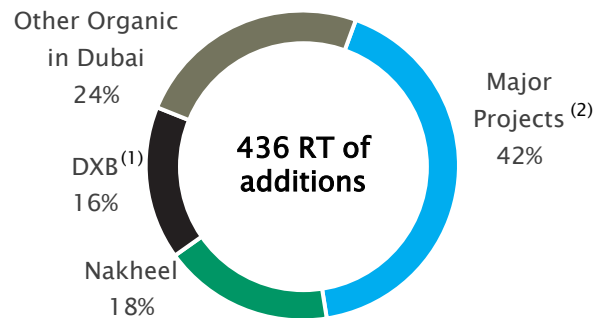
EMPOWER has the optimal scale and market positioning to capture growth from multiple avenues in Dubai and beyond

# Growth Avenues and RT Capacity Outlook

(Connected 'k RT)



## Breakdown of Capacity Growth 2018-2022E



**A**  
Secured Growth from Dubai Master Developments

**B**  
Adjacent Expansion and Retrofitting of Existing Systems

**C**  
New Projects, Master Developments and Vertical Integration

**D**  
Inorganic Opportunities

**E**  
International and Regional Expansion

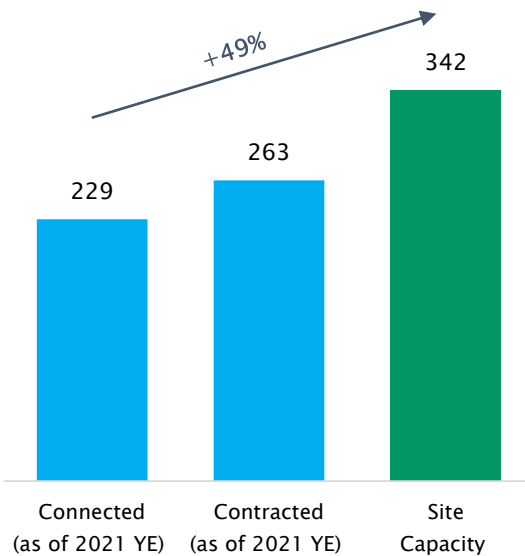
Growth Opportunities on top of Secured Growth



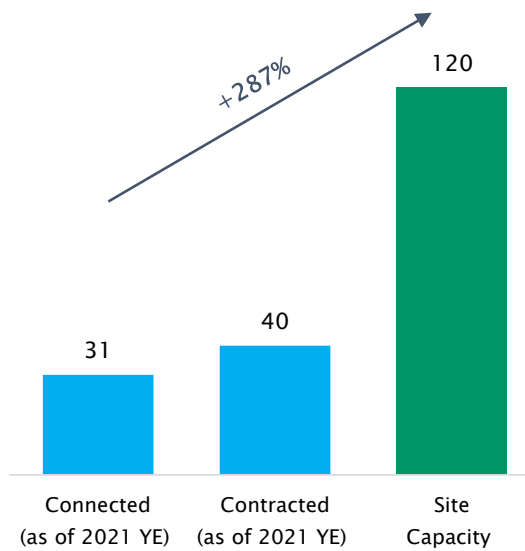
# A Secured Growth from Dubai Master Developments

(Connected 'k RT)

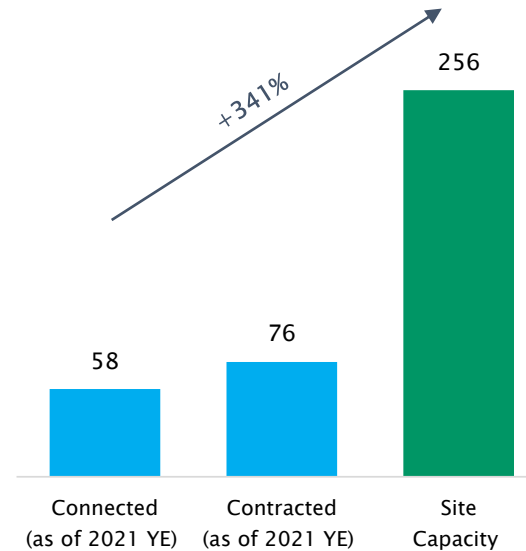
## Business Bay



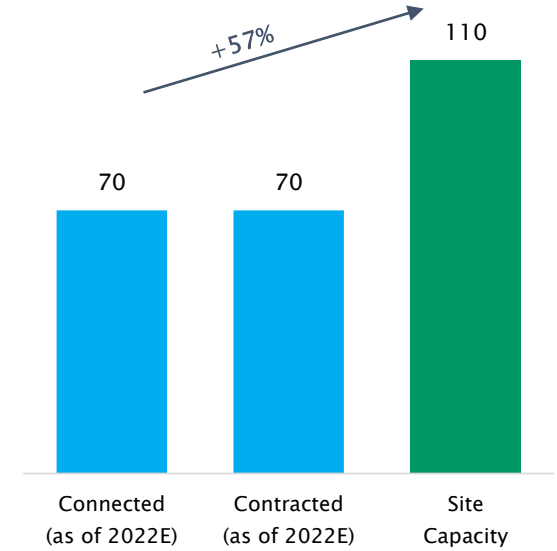
## Dubailand Residence Complex



## Jumeirah Village South



## Dubai International Airport (1)



Total additions of more than 370k RTs (22E-27E), of which c.213k RTs (c.58%) to come from 3 main projects

# A Secured Growth from New Projects in Dubai

## Dubai Maritime City



*Purpose-build maritime centre, set to become a major hub for maritime services*

## Deira Waterfront Phase 2

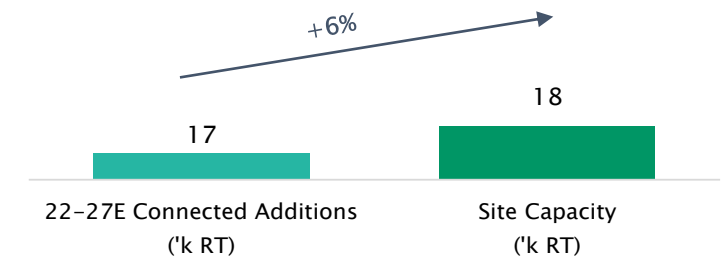
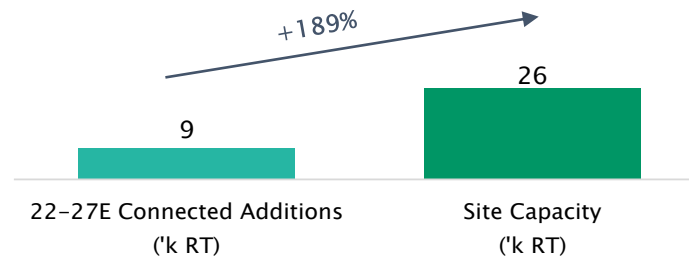
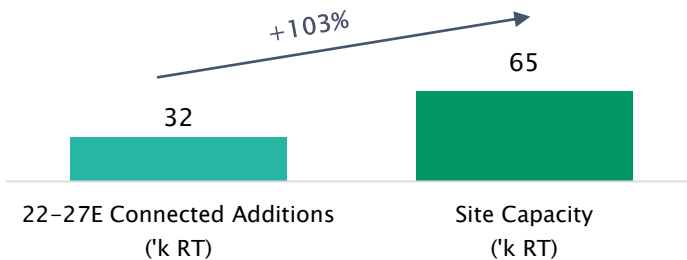


*Luxurious residential and hospitality complex, set on the edges of a private marina*

## The Island

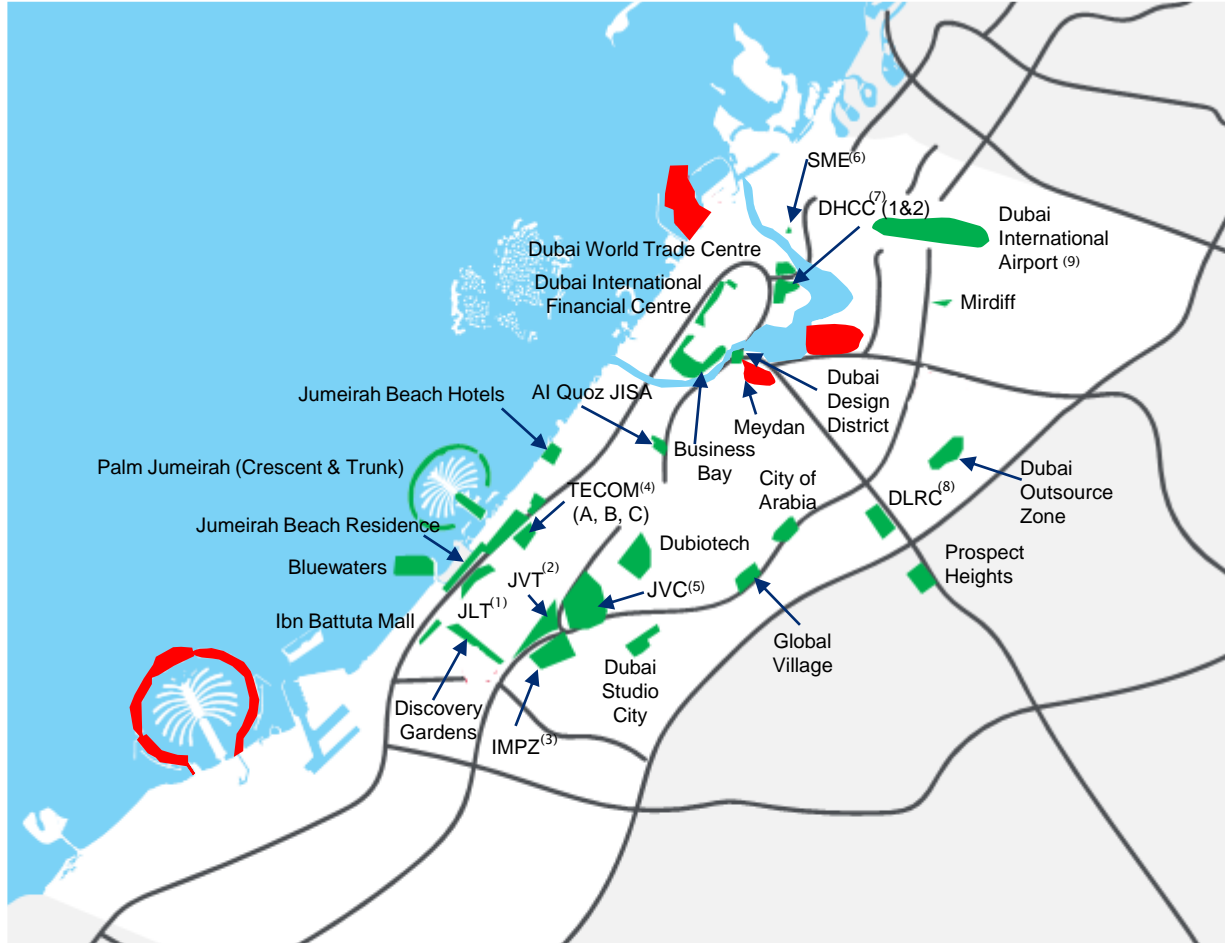


*Currently under construction, luxury beachfront development which will include 1,400+ hotel rooms and apartments, as well as cafés, restaurants, retail stores and family entertainment*



EMPOWER has secured further growth avenues by being strategically positioned on Dubai's next iconic projects

## B Adjacent Expansion and Retrofitting of Existing Systems



— Main Roads    ■ Current Projects    ■ Future Projects

### Optimally Positioned to Connect Adjacent New Projects to the Network

- Presence all across Dubai and established relationships with real estate developers work as a facilitator for **connecting additional projects adjacent to the existing networks**
- Scale allows **efficient deployment and enhance opportunities** to reach new developments

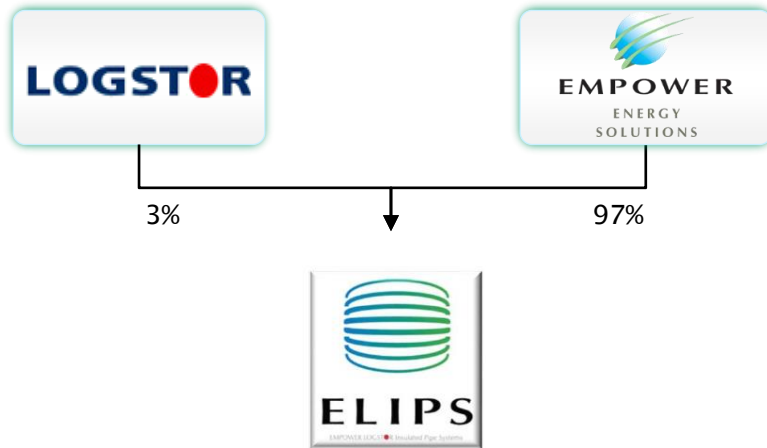
### Emirates Towers Retrofitting Highlights



- **Well positioned for additional retrofitting and conventional cooling conversions to district cooling**
- EMPOWER retrofitted **Emirates Towers** old cooling system by installing an **Energy Transfer Station of total capacity of 5k RT, upgradable to 6k RT**, and connected it to its District Cooling System
- **Project Benefits:**
  - Significant reduction in electrical energy consumption of c.50%
  - 30k sqft of prime land made available for future development
  - 6.4k tCO2 emission reduced annually

## C EMPOWER's Leading Insulated Pipe Systems Joint Venture

### EMPOWER Logstor Insulated Pipe Systems (ELIPS)



- ✓ **Leading manufacturer** of pre-insulated pipes and provider of innovative solutions in fittings across the GCC countries and the North Africa region
- ✓ **ELIPS** was established in **2007** as a **joint venture** between **EMPOWER** (51%) and **Logstor Holding Denmark** (49%)
- ✓ Commercial operations commenced in 2009
- ✓ Headquartered in the **Jebel Ali industrial area in Dubai** over an area of 10k sq meters
- ✓ In 2012, EMPOWER increased its shareholding in ELIPS to **97%**

### Business Description

- Caters to the demand for **pre-insulated pipes and fittings** from **various industrial domains** e.g. district cooling, oil, gas, solar, marine
- Key to EMPOWER's **efficient transport of energy and supply chain**
- Has served **150+ projects** over the last 10 years

### Robust Operational and Financial Performance

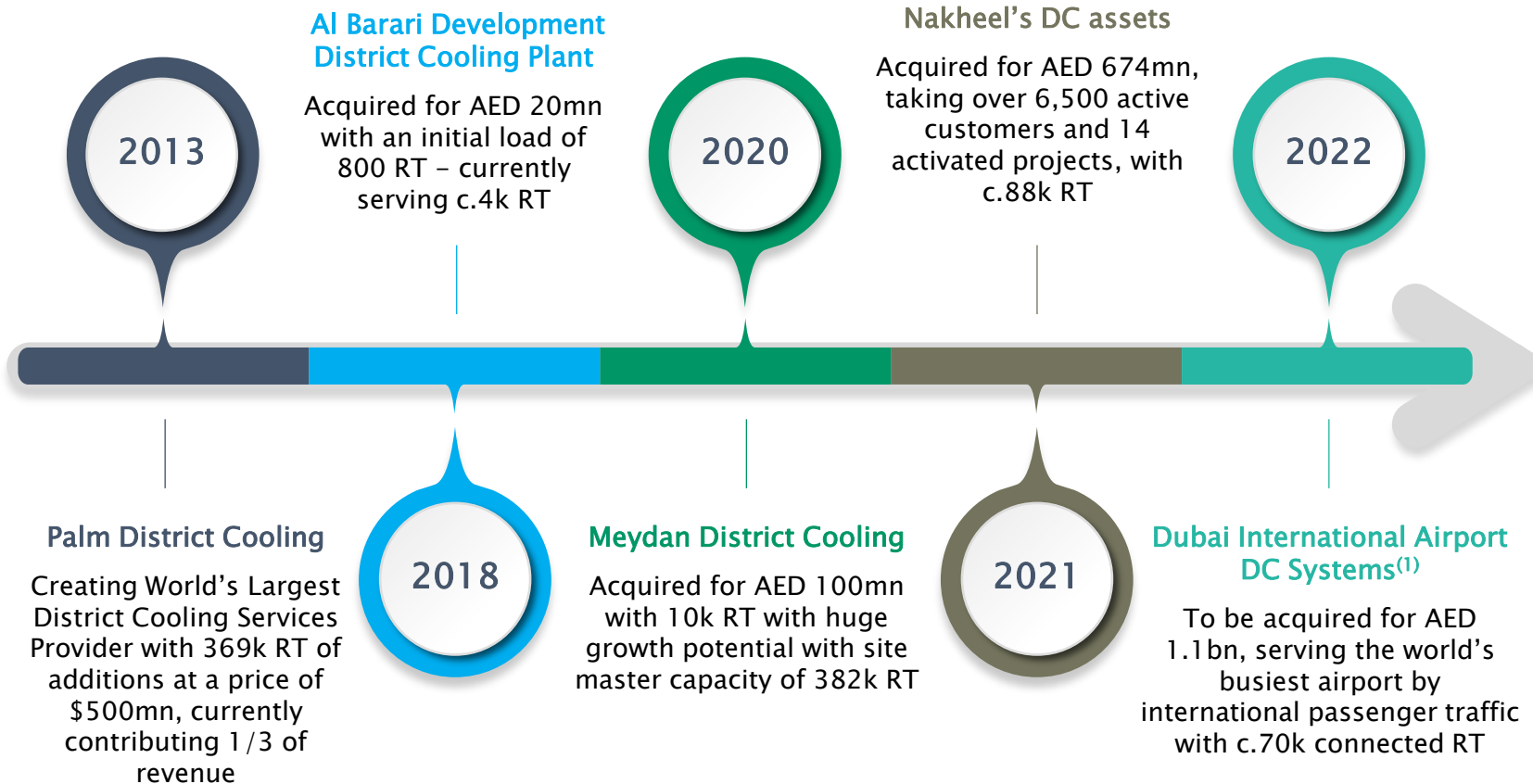
- Home to the UAE's largest plant, leveraging **robotics-driven manufacturing technologies**
- Capacity of producing **300km of pipes** and fittings ranging from 2 to 80 inches
- **Total sales of over AED 800 mn**, spread across various locations:
  - GCC region, notably UAE, Oman, Kuwait, KSA
  - Egypt

### Environmentally Friendly Manufacturer

- **ELIPS quality management systems are certified** to the standards of the European International Network for District Cooling
- Achieved **ISO (International Organization for Standardizations)** such as EURO HEAT, ISO 9001:2015, ISO 14001:2015, and ISO 45001
- **Only pre-insulated pipe manufacturer** in the region that uses CFC<sup>(1)</sup> free blowing agent, which contributes to the **reduction of CO2 emissions and improve energy efficiency**

# D Successful Track-Record of Growth Through Project Acquisitions with Further Room for Market Consolidation

## Extensive Track Record in Acquisitions: Key Transactions in the Last 10 Years



## Inorganic Growth Avenues

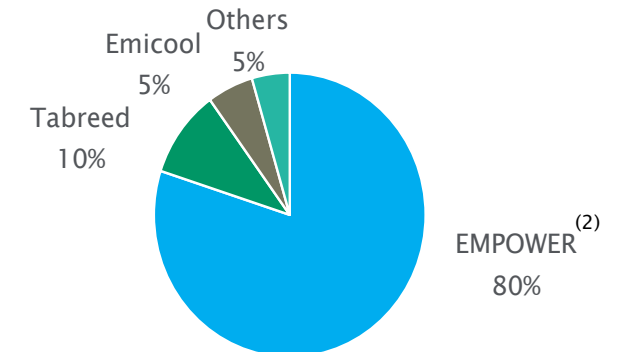


Leveraging EMPOWER's deep expertise in acquisitions and relationships with banks and stakeholders to complete transactions



Continue to lead consolidation of local district cooling market

2021 District Cooling Market Share in Dubai (%)



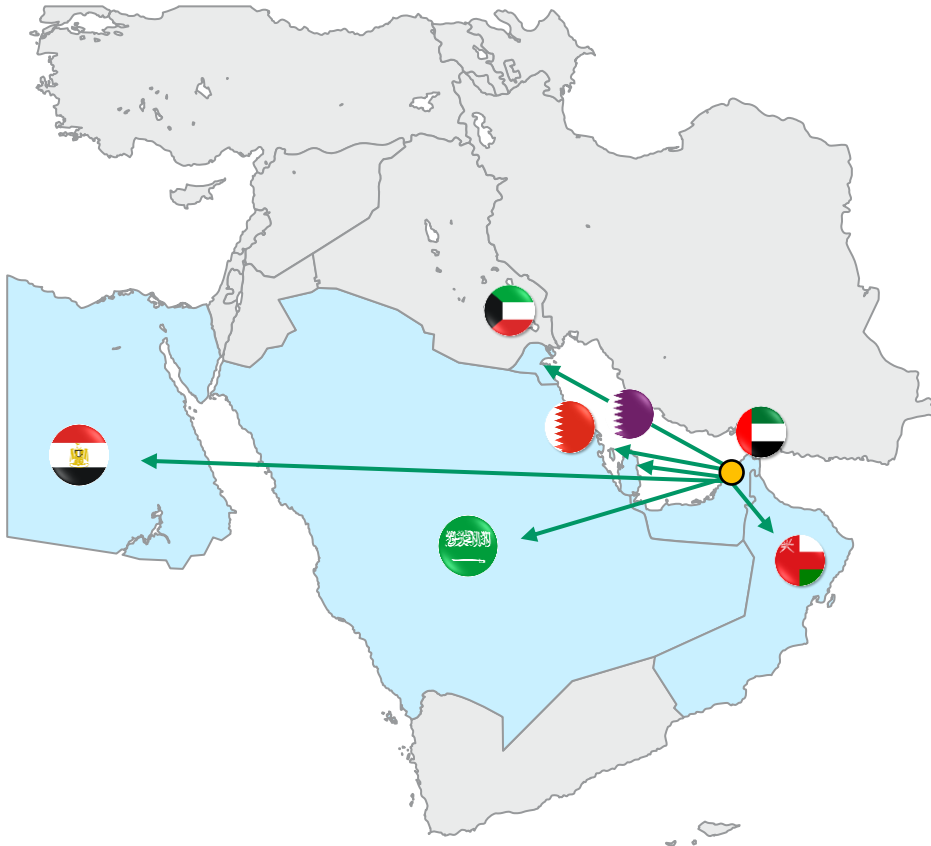
Capitalise on carve-outs and monetisation of large scale district cooling operations (e.g. Palm, Nakheel and Dubai Airport<sup>(1)</sup> district cooling assets)

EMPOWER has built a successful track record in acquiring iconic projects in Dubai, continuously leveraging its scale and know-how

Source: Company information. Note: (1) Dubai Airport district cooling assets acquisition, transaction pending closing. (2) 80% market share reflects market share post-completion of Dubai Airport district cooling assets acquisition, transaction pending closing; 79% market share at present.

E

## International and Regional Expansion: Key Potential Markets



- **Balance sheet flexibility, access to capital** and **regional know-how** make EMPOWER well positioned for regional expansion in nearby markets where district cooling is set to play an important societal role
- Population growth, growing economies and temperature increases, constitute megatrends **accelerating the need for efficient and sustainable cooling at scale**, also in neighbouring GCC countries
- Growth is notably expected to materialize further in the **UAE, the GCC region (notably in KSA and Qatar)** and **other MENA countries (e.g. Egypt)**

Description	Unit	UAE	Dubai	KSA	Qatar	Kuwait	Oman
Estimated District Cooling Systems Installed Capacity	kRT	3,300	1,710 <sup>(1)</sup>	1,900	900	200	160
Estimated DC Scheme Contract Value	AED bn	7.5	NA	5.2	2.3	0.5	0.4
District Cooling Penetration Rate	%	15.0	25.6	3.4	9.1	1.3	2.8



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**Appendix**



# Historical Income Statement

AEDm	2019A	2020A	2021A	CAGR 19-21A	H1 2021A	H1 2022A	YoY Growth %
<b>Revenue</b>	<b>2,189</b>	<b>2,255</b>	<b>2,464</b>	<b>6.1%</b>	<b>993</b>	<b>1,154</b>	<b>16.2%</b>
<i>Growth %</i>		<i>3.0%</i>	<i>9.3%</i>			<i>16.2%</i>	
COS <sup>(1)</sup>	(968)	(932)	(1,090)		(372)	(454)	
Impairment Reversal of Project Cost	80	53	32		-	-	
<b>Gross Profit (exc. D&amp;A)</b>	<b>1,301</b>	<b>1,376</b>	<b>1,406</b>	<b>3.9%</b>	<b>621</b>	<b>700</b>	<b>12.7%</b>
<i>Margin %</i>	<i>59.4%</i>	<i>61.0%</i>	<i>57.1%</i>		<i>62.5%</i>	<i>60.6%</i>	
G&A Expenses (exc. D&A) <sup>(2)</sup>	(161)	(167)	(168)		(88)	(100)	
Other Income / (Expense) <sup>(3)</sup>	5	(9)	8		8	5	
<b>EBITDA</b>	<b>1,145</b>	<b>1,200</b>	<b>1,244</b>	<b>4.3%</b>	<b>541</b>	<b>605</b>	<b>11.8%</b>
<i>Margin %</i>	<i>52.3%</i>	<i>53.2%</i>	<i>50.5%</i>		<i>54.5%</i>	<i>52.4%</i>	
D&A Expense	(262)	(292)	(312)		(152)	(165)	
<b>EBIT</b>	<b>884</b>	<b>909</b>	<b>933</b>	<b>2.8%</b>	<b>389</b>	<b>439</b>	<b>12.9%</b>
<i>Margin %</i>	<i>40.4%</i>	<i>40.3%</i>	<i>37.9%</i>		<i>39.2%</i>	<i>38.1%</i>	
Net Interest Expense <sup>(4)</sup>	(13)	(7)	3		0	(8)	
<b>Net Profit</b>	<b>871</b>	<b>901</b>	<b>936</b>	<b>3.7%</b>	<b>389</b>	<b>432</b>	<b>10.9%</b>
<i>Margin %</i>	<i>39.8%</i>	<i>40.0%</i>	<i>38.0%</i>		<i>39.2%</i>	<i>37.4%</i>	

Source: Company information. Note: (1) Excludes depreciation of property, plant and equipment, depreciation of right-of-use assets and amortization of intangible assets, and includes; utilities cost, direct staff costs, materials cost, and others. (2) excludes depreciation of property, plant and equipment and depreciation of right-of-use assets, and includes; indirect staff costs, directors remuneration, consultancy and communication expenses, advertising & marketing expenses, rent expense, business travel expense and others. (3) includes: interest income on financial asset at amortised cost, provision for expected credit losses, net impairment losses on financial assets, share of profit from JV, and other income. (4) Calculated as: finance income less finance costs. 64



# Historical Balance Sheet

AEDm	2019A	2020A	2021A	H1 2022A
Cash and cash equivalents	331	1,069	1,246	1,835
Inventories	42	35	27	25
Trade and Other Receivables	271	307	274	399
Other Current Assets <sup>(1)</sup>	3	32	222	441
<b>Current Assets</b>	<b>647</b>	<b>1,443</b>	<b>1,769</b>	<b>2,699</b>
Property, Plant and Equipment	6,199	6,713	7,033	6,996
Other Non-Current Assets <sup>(2)</sup>	25	76	741	788
<b>Non-Current Assets</b>	<b>6,224</b>	<b>6,790</b>	<b>7,774</b>	<b>7,784</b>
<b>Total Assets</b>	<b>6,870</b>	<b>8,233</b>	<b>9,544</b>	<b>10,484</b>
Trade and Other Payables	1,584	1,411	1,485	1,626
Borrowings – Current	68	167	1,000	2,024
Other Current Liabilities <sup>(3)</sup>	158	208	172	139
<b>Current Liabilities</b>	<b>1,811</b>	<b>1,786</b>	<b>2,657</b>	<b>3,789</b>
Borrowings – Non Current	352	1,155	988	884
Other Non-Current Liabilities <sup>(4)</sup>	434	497	468	454
<b>Non-Current Liabilities</b>	<b>786</b>	<b>1,652</b>	<b>1,456</b>	<b>1,338</b>
<b>Total Liabilities</b>	<b>2,597</b>	<b>3,438</b>	<b>4,113</b>	<b>5,127</b>
Share Capital	1,000	1,000	1,000	1,000
Reserves <sup>(5)</sup>	500	502	503	497
Retained Earnings	2,707	3,208	3,844	3,776
Contributed Capital & NCI	66	84	84	84
<b>Total Equity</b>	<b>4,274</b>	<b>4,795</b>	<b>5,431</b>	<b>5,357</b>
<b>Total Liabilities &amp; Equity</b>	<b>6,870</b>	<b>8,233</b>	<b>9,544</b>	<b>10,484</b>

Source: Company information. Note: (1) Includes: due from related parties, financial assets at amortised cost and at fair value through profit or losses, and term deposits. (2) Includes: right-of-use assets, intangible assets, financial assets at amortised cost and at fair value through other comprehensive income, investment properties, and investment in joint venture. (3) Includes: due to related parties, government grant, and lease liabilities. (4) government grant, provision for EOSB, retentions payable, and lease liabilities. (5) Includes: statutory reserve and other reserves.

# Historical Cash Flow Statement

AEDm	2019A	2020A	2021A	H1 2022A
Net Profit	871	901	936	432
D&A expense <sup>(1)</sup>	262	292	312	165
Other non-cash expenses <sup>(2)</sup>	(65)	(23)	(11)	18
<b>Cash Profit for Period</b>	<b>1,068</b>	<b>1,170</b>	<b>1,237</b>	<b>615</b>
Net change in working capital	(45)	(137)	130	(6)
<b>Net Cash Generated from Operating Activities</b>	<b>1,023</b>	<b>1,034</b>	<b>1,366</b>	<b>610</b>
Acquisition of subsidiary	-	-	(668)	-
Payment for PP&E, Net	(677)	(775)	(572)	(221)
Other Income / (Investments) <sup>(3)</sup>	7	(68)	(186)	(197)
<b>Net Cash Used in Investing Activities</b>	<b>(669)</b>	<b>(844)</b>	<b>(1,426)</b>	<b>(418)</b>
Proceeds from bank borrowing, Net	489	970	917	917
Repayment of bank borrowings	(70)	(70)	(253)	-
Dividends paid to shareholders	(470)	(330)	(400)	(500)
Other Items <sup>(4)</sup>	(25)	(22)	(28)	(20)
<b>Net Cash Generated from Financing Activities</b>	<b>(76)</b>	<b>548</b>	<b>236</b>	<b>398</b>
<b>Net Increase in Cash and Cash Equivalents</b>	<b>277</b>	<b>738</b>	<b>176</b>	<b>589</b>
<b>Cash and Cash Equivalent at the Beginning of the Year</b>	<b>54</b>	<b>331</b>	<b>1,069</b>	<b>1,246</b>
<b>Cash and Cash Equivalent at the End of the Year</b>	<b>331</b>	<b>1,069</b>	<b>1,246</b>	<b>1,835</b>

Source: Company information. Note: (1) includes: depreciation of property, plant and equipment, depreciation of right-of-use assets, and amortization of intangible assets. (2) Includes: amortisation of financial assets and arrangement fees, impairment reversal of project cost, share of profit of joint venture, gain on disposal of property, plant and equipment, net impairment losses on financial assets, employees' end of service benefits provisions and payment, interest on lease liabilities, interest income earned on financial assets at amortised cost, net finance cost, government grant income, impairment of trade receivables, and settlement of financial assets. (3) Includes: short-term deposits (more than 3 months) encashed / invested, investment in financial assets at fair value through profit and loss, finance income received, investment in financial assets at fair value through other comprehensive income, and proceeds from disposal of property, plant and equipment. (4) Includes: lease payments (principal and interest), and finance cost paid.

## Adjusted EBITDA Reconciliation

AED m	2019A	2020A	2021A	H1 21	H1 22
<b>Reported EBITDA</b>	<b>1,145</b>	<b>1,200</b>	<b>1,244</b>	<b>541</b>	<b>605</b>
<i>Margin %</i>	<i>52.3%</i>	<i>53.2%</i>	<i>50.5%</i>	<i>54.5%</i>	<i>52.4%</i>
Less: Impairment Reversal of Project Cost	80.3	53.5	32.3	-	-
Less: Other Income / (Expense)	<b>4.6</b>	<b>(8.8)</b>	<b>7.6</b>	<b>7.8</b>	<b>4.6</b>
<i>Other Income</i>	<i>4.8</i>	<i>5.0</i>	<i>16.2</i>	<i>7.8</i>	<i>2.7</i>
<i>Interest Income on Financial Asset at Amortised Cost</i>	-	-	-	-	<i>9.3</i>
<i>Provision for Expected Credit Losses</i>	-	-	-	-	<i>(7.4)</i>
<i>Net Impairment Losses on Financial Assets</i>	<i>(0.4)</i>	<i>(13.8)</i>	<i>(8.6)</i>	-	-
<i>Share of profit from JV</i>	<i>0.1</i>	-	-	-	-
<b>Adjusted EBITDA</b>	<b>1,060</b>	<b>1,156</b>	<b>1,204</b>	<b>533</b>	<b>600</b>
<i>Margin %</i>	<i>48.4%</i>	<i>51.3%</i>	<i>48.9%</i>	<i>53.7%</i>	<i>52.0%</i>