

2020 ANNUAL SUSTAINABILITY REPORT

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“With the growing importance of climate change on the global agenda, **I am confident that Masdar will continue to drive progress.**”

STATEMENT FROM OUR CHAIRMAN

Our eighth annual sustainability report is published after a year unlike any we have seen in our lifetimes. As we turn the corner in the fight against COVID-19 however, I am convinced that Masdar’s purpose, mission and mandate has never been more relevant, for the United Arab Emirates (UAE) and for the world.

Today, we stand on the cusp of major changes to our industries and to our societies; with the right push, I firmly believe these changes will bring forth a sustainability dividend that will benefit all of mankind, for many generations.

As we collectively overcome the pandemic, nations have an unrivalled opportunity to leverage sustainable infrastructure as a key enabler of post COVID recovery and long-term economic development. From mass transit systems to smart electricity grids; from renewable power projects to the retrofitting of buildings to make them more efficient, such an effort would generate millions of jobs while addressing valid concerns about the long-term sustainability of our built and unbuilt environments.

Masdar has been a driving force behind many of the technologies that form the foundation of this next-generation infrastructure, and our 2020 Sustainability Report provides you with a solid overview of our commitment to investing in and delivering sustainable infrastructure solutions locally, regionally and globally.

This year alone we have embarked on major renewables projects here in the UAE as well in the US, Uzbekistan and Indonesia. The rapid adoption of these projects demonstrate just how cost competitive solar and wind are today, as part of an integrated and viable energy mix in developed and developing economies.

This report also showcases how Masdar is helping to build a true knowledge-based economy in the UAE, by identifying hard-working Emirati youth, and providing them with the training and career paths they need to grow and become the leaders of tomorrow.

I would like to express my gratitude to all our partners and key stakeholders who have taken an active role in supporting our shared sustainability priorities, especially in this challenging year.

With the growing importance of climate change on the global agenda, I am confident that Masdar will continue to drive progress through partnership and support the UAE’s commitment as an active and solutions-driven contributor to sustainable development.

HE Dr Sultan Al Jaber
Chairman, Masdar



“At Masdar, we have always led by example in communicating the importance of sustainability, **and this year is no exception.**”

MESSAGE FROM OUR CHIEF EXECUTIVE OFFICER

It gives me great pleasure to present to you our 2020 Sustainability Report. This has been the most unusual year in our near 15 year history, but also one in which we have continued to make considerable progress on our objectives as a sustainability pioneer and role model.

When we published our first report dedicated to sustainability eight years ago, the topic was rarely discussed in corporate boardrooms in the region, and indeed around the world. I am delighted to see that since then Environmental, Social and Governance (ESG) reporting has moved from the exception to the rule for enterprises and businesses, in fields ranging from industry and hydrocarbons to investment and banking, and real estate and construction.

At Masdar, we have always led by example in communicating the importance of sustainability, and this year is no exception. Our 2020 report provides more information about our own ESG philosophy, and offers greater insight into our activities and achievements this year.

Our mission since we launched in 2006 has been to put the UAE on a path to a sustainable, diversified economy, and we have grown to become an integral part of the UAE's efforts to shape the climate change conversation globally. It is no boast to say sustainability is not just part of our DNA: it is our DNA.

We have been fulfilling that mandate across many work streams and, in addition to our renewable energy projects at home and abroad, I am very proud that this year saw us consolidate our leadership position in sustainable urban development, and expand our footprint in energy storage solutions, mobility and transport, green hydrogen and other essential parts of the wider clean energy spectrum.

This year may have been challenging on many fronts, but we have continued our progress. At Masdar, we pledged at the beginning of 2019 to double the capacity of our generation portfolio – then at 4 gigawatts – within five years.

In fact, we have exceeded that target already this year – today our portfolio, including operational and under delivery projects, has a capacity in excess of 10 gigawatts, displacing some 16 million tonnes of CO2 annually.

Further afield, we extended our global footprint with major new projects in the US, and entered exciting new markets, including Indonesia – the biggest energy user in Southeast Asia – and Australia for the first time.

Closer to home, Masdar City added new partners, and attracted more than 170 new tenants, cementing its position as a hub for innovators looking for a Middle East presence.

These successes must be viewed against the backdrop of the COVID-19 pandemic and, crucially, Masdar's response to it. Here, I must thank the UAE's leadership, our shareholder Mubadala, our partners and our employees for their exceptional efforts in rising to this unprecedented challenge. By coming together, we defined and implemented a contingency strategy that maintained business continuity, protected shareholder value whilst ensuring the health and safety of our staff, tenants, and partners across all Masdar entities.

In 2021, we expect to make further progress as we strengthen our core values of sustainability and agility. We will increase our efforts to contribute to the United Nations (UN) Sustainable Development Goals (SDGs), and to help advance these goals both in the UAE and abroad. We will further tighten our operational discipline to better manage our environmental footprint. And, with our partners and employees in the UAE and beyond, we will work tirelessly to ensure Masdar continues to be a sustainability beacon for the UAE, the Middle East and for the world.

Mohamed Jameel Al Ramahi
Chief Executive Officer, Masdar

MASDAR 2020 KEY HIGHLIGHTS



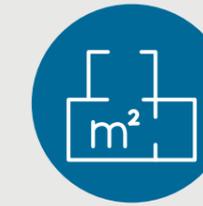
Over 40
nationalities represented
in the Masdar workforce



561 (kgCO₂/m²)
consolidated embodied carbon
intensity for Masdar-owned
real estate assets



6.5m⁽¹⁾+ tons
carbon dioxide displaced
by clean energy portfolio
during reporting period



11,000⁽¹⁾GWh+ energy
produced from clean sources
during reporting period



100,000+ m²
approximate gross floor area
added to Masdar City

(1) Figures annualized based on November 2020 actuals

15 YEARS OF IMPACT



2006

Masdar Initiative launched



2008

Masdar City breaks ground

World Future Energy Summit is launched in Abu Dhabi

2009

First Zayed Future Energy Prize awards ceremony

2011

Three concentrated solar power plants, Gemasolar, Valle 1 & 2, begin operating in Spain. The plants have a combined capacity of 120 megawatts (MW).



2013

Masdar inaugurates Shams 1 in Abu Dhabi, the UAE's first large scale solar power plant with a capacity of 100 MW

Renewable Energy Water Desalination Program announced

Masdar inaugurates London Array with a capacity of 630 MW

Launch of Abu Dhabi Sustainability Week



2014

Masdar inaugurates the Siemens Middle East headquarters in Masdar City



2015

Masdar inaugurates the headquarters of the International Renewable Energy Agency (IRENA) in Masdar City

2016

DEWA appointed Masdar & EDF to build 800 MW third phase of the Mohammed bin Rashid Al Maktoum Solar Park in Dubai



2017

Inauguration of 402 MW Dudgeon Offshore Wind Farm in the UK

Launch of the UAE-Caribbean Renewable Energy Fund

Masdar launches Emirates Waste to Energy Company with Bee'ah in Sharjah, to develop the UAE's first waste-to-energy facility with a capacity of 30 MW.

Masdar, with Equinor, launches the 30 MW Hywind Scotland, the world's first floating wind farm

2018

YEAR OF ZAYED

The Zayed Future Energy Prize evolves into the Zayed Sustainability Prize

Launch of the 200 MW first stage of the third phase of the Mohammed bin Rashid Al Maktoum Solar Park

Batwind, the world's first battery connected to an offshore wind farm, is launched at Hywind, Scotland



2019

YEAR OF TOLERANCE

Inauguration of 158 MW Cibuk 1 Wind Farm in Serbia

The EDF Renewables-Masdar consortium is awarded the Dumat Al Jandal (400 MW) wind project in Saudi Arabia

Masdar inaugurates three solar projects in the Caribbean as part of the UAE-Caribbean Renewable Energy Fund

Masdar is awarded the 100 MW Uzbekistan Scaling Solar PV Project

A consortium of EDF Renewables, Masdar and Green of Africa wins Morocco's landmark Noor Midelt Phase 1 hybrid solar power plant



2020

YEAR OF PREPARATION FOR THE NEXT 50 YEARS

Masdar's first entry into Azerbaijan and Uzbekistan with utility-scale solar and wind projects

Masdar signs deal with EDF Renewables North America for acquisition of 1.6-gigawatt (GW) clean-energy portfolio

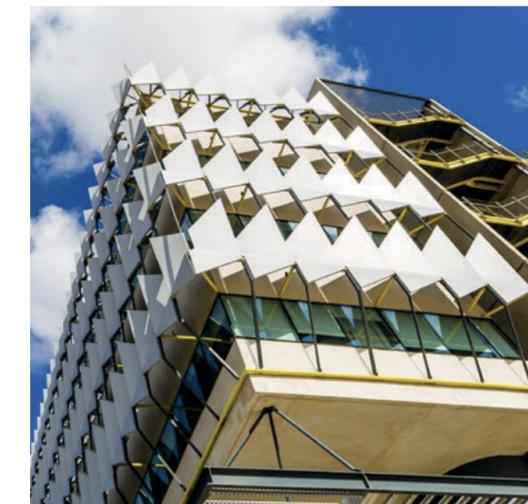
Expansion of presence in Australia with investments in two waste-to-energy projects in Western and Eastern Australia

Masdar signs agreement to deliver first floating solar photovoltaic plant in Indonesia

Masdar is named as part of a consortium that will develop the world's largest solar power plant in Abu Dhabi, at a new record low rate

The UAE-Caribbean Renewable Energy Fund (UAE-CREF) successfully completes new development and funding agreements for eight Caribbean nations

Masdar's sustainable real estate investment trust (REIT) becomes the first 'green' REIT to be introduced in the UAE





“Masdar more than doubled capacity of clean energy over **2** years to generate enough electricity to power over **4m+** homes.”

A SUSTAINABLE AND RESILIENT COMPANY

Sustainability is at the heart of Masdar, both in what we invest in and how we approach doing business. Through strategic investments and partnerships, we have proven our capabilities in deploying renewable energy around the world and bringing to market pioneering clean technologies and sustainable urban development solutions. Today, we are undoubtedly a global renewable energy leader, with a presence in more than 30 countries, and a portfolio covering solar, wind, waste-to-energy, electric mobility, energy storage, and sustainable urban development.

Looking at our investment model, our main focus continues to be in electricity generation from renewable sources; solar and wind primarily, but we are increasingly looking at waste-to-energy, hydro and others. An active equity investor, we seek bankable projects with clearly defined risk boundaries, long term, well-structured agreements and cash-flow visibility, as well as strong partners.

The capacity of the renewable energy projects that we are a partner in has more than doubled since 2019, from 4 gigawatts (GW) to 10.7 GW – enough electricity to power over 4 million homes. Our global operating clean energy portfolio displaces close to 6.5 million metric tons of CO2 per year. Meanwhile, Masdar City, a pioneering sustainable urban community and innovation hub in Abu Dhabi, is also a powerful business enabler and incubator with over 900 active companies.

And through our knowledge platforms, we bring together different audiences, from thought leaders and policymakers to SMEs, young professionals and high school students, in different forums to drive progress across renewable energy, clean technology and sustainable real estate.

We are committed to pushing forward the global sustainability agenda to mitigate climate change and support countries with their energy transitions. Cooperation and partnership are built into our DNA, as we operate through strategic co-investments or joint research and development projects with peers in the UAE, the wider Middle East and beyond.

Masdar has been able to achieve the above by combining its technical knowhow, local market presence & intelligence and extensive business network across the value chain with the overarching goal of delivering projects with a tangible sustainability impact.

Our resilience has been proven by the fact that, despite the economic challenges arising from the global, COVID-19 pandemic, Masdar has continued to grow throughout 2020. This report, which covers the period between January and December 2020, also shows how we ensured that the challenges posed by COVID-19 would not derail our commitment to sustainability, in the UAE and wherever we operate.

The report spans the full breadth of Masdar’s operations, including those based overseas. Data coverage varies for different KPIs – where we can, we have explained these throughout the report. It has been prepared in accordance with Global Reporting Initiative (GRI) Standards: Core option (see pages 60-65).

THE SOURCE OF A SUSTAINABLE FUTURE



Our Purpose
To secure the long-term prosperity of the UAE through helping to build a resilient knowledge-based economy.

Our Mission
To advance the development and adoption of commercially viable solutions in renewable energy and sustainable real estate to address the sustainability challenges of the UAE, the Middle East and international markets.

Our Vision
To make Abu Dhabi the world's reference for knowledge and collaboration in the advancement of renewable energy, clean technologies and sustainable development.

Our Values

Agile
We believe that success in today's energy sector requires the ability to move swiftly in sync with changes in technology.

Commercial
We believe that the best way to increase the use of clean technologies is to demonstrate that they are commercially viable.

Sustainable
We believe that sustainability should be a key consideration in all decision making.

Grounded
Everything we do is grounded in what is technically and financially feasible. We believe this ultimately leads to better technology, healthier business returns, and the wider use of renewable energy.

“Established in 2006, Masdar, Abu Dhabi Future Energy Company, is a **global leader in renewable energy and sustainable urban development. Masdar means ‘source’ in Arabic.**”

OUR SUSTAINABILITY PHILOSOPHY

As an Abu Dhabi entity tasked with supporting the UAE, the region and international partners towards a greener future, sustainability is in our DNA. Our philosophy is built on the three pillars of sustainability: economic, social and environmental. This is underpinned by a guiding principle: nothing is truly sustainable unless it is commercially viable.

Through our projects and investments, we are helping to build a global marketplace for renewable energy, clean technologies and low-carbon urban development.

We strive to minimize the environmental impact of our business and operations through improved operational efficiency, minimizing raw or non-renewable materials and energy consumption, and reducing waste and emission outputs.

We invest in society by empowering UAE nationals, encouraging local capacity building where we operate, creating jobs and fostering economic development.

We ensure the safety and well-being of our people by providing safe, secure, and healthy environments for all our employees, visitors, contractors and customers through adoption of best quality, health, and safety management practices, controls and risk procedures.

We are committed to our employees, encouraging development through a culture of continuous learning and engagement.

We are proud to be exemplary corporate citizens, adopting and implementing human rights and labor practices that are consistent with international obligations and commitments, adhering to the laws of all regions and jurisdictions in which we operate, and acting fairly and equitably in all business practices.

OUR APPROACH TO ESG



As a highly visible commercial business accountable to diverse stakeholders, we are deeply invested in how we conduct our operations. Driven by our mission and our purpose, we are keenly aware of our responsibility toward the communities we operate in and our contribution to the UAE's national agenda and its international reputation.

Our ESG approach focuses on actions that drive absolute and positive impact. This is especially important in how we choose our investments. Since 2006, we have built a balanced and resilient portfolio that has long-term value and impact, and delivers strong operational results while prioritizing positive environmental and social impact.

Our approach extends to our role as the host of Abu Dhabi Sustainability Week (ADSW), a global platform for accelerating the world's sustainable development, and our strategic initiatives such as Women in Sustainability, Environment and Renewable Energy (WiSER) and Youth 4 Sustainability (Y4S).

Our approach also covers critical internal governance functions, where we follow the best practices imposed by our parent, Mubadala Investment Company, and our own platforms such as our ethics, diversity and inclusion program and our responsible sourcing initiative.

ESG Framework

Environment



Masdar is advancing the commercialization and deployment of renewable energy, sustainable urban development, and clean technologies to address global sustainability challenges. Masdar also advances clean-tech innovation and plays a key role in supporting world-class industry and knowledge platforms that are driving the global sustainability debate, such as ADSW.

Guiding principles

- Provide low-carbon energy for the future
- Ensure that every project is delivered to the highest standard

Social



Masdar is a responsible corporate citizen, providing meaningful employment, a safe workplace, and a healthy environment that respects tradition and local culture.

Guiding principles:

- Be an industry leader in health, safety, and environment practices and performance
- Develop a diverse and inclusive workforce
- A commitment to community-driven initiatives

Governance



Masdar is part of Mubadala Investment Company, which manages long-term investments that deliver strong financial returns and genuine social benefits for Abu Dhabi. The Mubadala Board of Directors is responsible for ensuring that there is an effective ethics and compliance program in place. At the direction of the Board, the Mubadala Group CEO & Managing Director has established a dedicated Ethics & Compliance Office to develop, coordinate, and support the ethics and compliance program across the Mubadala Group. The Ethics & Compliance Office reports functionally to the Board's Audit, Risk & Compliance Committee and has direct access and support from the Ethics & Compliance Review Board, which consists of Mubadala's senior executive management.

Masdar itself was one of the first UAE companies to roll out a formal Ethics, Diversity & Inclusion (ED&I) program and to establish a committee with the formal mandate to continue our ED&I initiatives.

Guiding principles:

- Ensure appropriate focus and oversight on ESG strategies and practices
- Continually improve governance structure and processes





2020 OUR YEAR IN REVIEW

As a result of the agreements we signed this year, we have expanded our global footprint, entering three new markets and adding new geographies to our portfolio.

Our sustainable urban community, Masdar City, continued to grow, and now hosts more than 900 businesses, reinforcing its reputation as a hub for innovation, research and development. The City continues to advance real-world solutions in energy and water efficiency, mobility, and artificial intelligence (AI). The City also played a major role in the UAE's fight against the pandemic, by housing a high-volume COVID-19 PCR testing facility with the capacity to analyze thousands of tests a day.

“For Masdar, in spite of the challenges presented by COVID-19, we maintained our growth trajectory in 2020.”

Sustained clean energy growth

Masdar added several international partnerships to the portfolio in 2020.

These included:

- Achieving financial close on the 100 MW Nur Navoi Solar Project – Uzbekistan’s first successfully-financed independent power producer (IPP) solar project, which was announced in November 2020;
- Signing a power purchase agreement (PPA) with Perusahaan Listrik Negara (PLN), the state electricity company in Indonesia, to deliver the first floating solar photovoltaic (PV) plant in the country with a capacity of 145 MW. A joint venture was established in December 2020 between Masdar and PT PJBI, a subsidiary of Indonesia’s state electricity company PT PLN (Persero), to drive the development of the floating PV plant.
- An agreement with the Ministry of Energy of the Republic of Azerbaijan to design, finance, build and operate a 200 MW utility-scale PV project in the country;
- An agreement with the Ministry of Investments and Foreign Trade of the Republic of Uzbekistan to design, finance, build and operate a 500 MW utility-scale wind farm project;
- Strategic investments in the USA through a deal signed with EDF Renewables North America through which Masdar acquired a 1.6 GW clean-energy portfolio;
- Establishing a joint venture (JV) with Tribe Infrastructure Group to strengthen collaboration in the deployment of utility-scale waste-to-energy (WTE) projects in Australia;

In the UAE, the third phase of the Mohammed bin Rashid Al Maktoum Solar Park was inaugurated. Masdar was also announced as part of a consortium, alongside Abu Dhabi National Energy Company (TAQA), EDF and JinkoPower, that will develop the 2,000 MW Al Dhafra solar PV project in Abu Dhabi, the world’s largest solar PV plant at a new record low rate of AED 4.97 fils/kWh [US\$1.35 cents/kWh]. Financial close of Al Dhafra project was announced in December 2020.

Finally, the UAE-Caribbean Renewable Energy Fund (UAE-CREF) started construction of the second cycle of the plan to build climate-resilient renewable energy projects in 16 Caribbean Island nations, successfully completing new development and funding agreements for the Dominican Republic, Haiti, Guyana, Grenada, Saint Kitts and Nevis, Trinidad and Tobago, and Suriname. The fund also announced the start of construction for a hurricane-resistant clean energy plant in Antigua and Barbuda to help the twin-island nation recover from the devastating effects of Hurricane Irma in 2017, in addition to another plant in Belize.

Driving sustainable real estate growth

Closer to home, Masdar City continued its growth story despite the COVID-19 pandemic’s impact on businesses globally. From January through December, Masdar City Free Zone increased its occupancy by more than 170 companies.

In other achievements, the second phase of Masdar City’s Eco-Residence project was awarded Platinum certification, the highest ranking under the Leadership in Energy and Environmental Design (LEED) system. The mixed-use development comprises 878 residential units, located across nine low-rise high-performance buildings.

The Eco-Residences 2 project also won the Middle East and North Africa (MENA) Green Building Project of the Year at the MENA Green Building Awards 2020 – the second Green Building Award for the project, with phase one receiving the Green Residential Building award in 2018.

Turning to sustainable finance, Masdar’s real estate investment trust (REIT) was the first ‘green’ REIT to be introduced in the UAE, and a milestone moment for the sustainable economy in the country. It will initially include four commercial properties within Masdar City.

Furthermore, ADQ, one of the region’s largest holding companies, launched a AED1.1 billion (US\$300 million) venture fund to invest in early-stage Indian and Southeast Asian start-ups and help them establish a base in Abu Dhabi’s Masdar City.



Since its inception in 2006, sustainability has been the single most important pillar of Masdar’s strategy.

YOUSEF BASELAIB
Executive Director, Strategy & Corporate Development



Since its inception in 2006, sustainability has been the single most important pillar of Masdar’s strategy. However, since sustainability cannot be achieved without continuity, a key strategic priority in 2020 was to minimize any disruption to our operations and limit any adverse impact on our people and our assets from COVID-19.

Masdar was quick to identify the potential disruptive impact of the COVID-19 pandemic and acted swiftly by assessing risks, determining mitigants and putting in place actionable Business Continuity Management (BCM) plans. These plans, developed in close coordination with our stakeholders, both in the UAE and globally, were implemented across all our locations and divisions as soon as it was feasible to do so.

As a result, despite the very tight timelines in which we were working, we experienced minimal disruption to our operations, many of which are vital for everyday life. We also formed a business continuity task force and, in alignment with government directives, rolled-out strict health and safety measures to protect the well-being of our employees, tenants and visitors.

Looking back at 2020, I cannot be more proud of our team, not only because we managed to weather this challenging year, but because we managed to do so without losing sight of our core growth strategy. We also managed to sharpen our focus on initiatives of increasing importance in the current environment such as The Catalyst and the Technology Working Group.

In rising to this challenge – and comprehensively overcoming it – we demonstrated our commitment to Masdar’s core principles by ensuring the resilience and sustainability of our operations and future growth.

COVID-19 AND BUSINESS CONTINUITY MANAGEMENT MASDAR'S RESPONSE

As the UAE leadership responded swiftly to COVID-19, Masdar was quick to implement extensive measures to protect our people and operations, while maintaining a business-as-usual environment and communicating with our stakeholders.

Masdar's approach included holistic risk mitigation to ensure the health and safety of staff and contractors, maintaining operations continuity across Clean Energy and Masdar City assets, and protecting income streams and shareholder value, where necessary.

Beginning with our Headquarters in Masdar City, we took a series of measures prioritizing safety while minimizing and even eliminating potential business disruptions. We asked our teams to work from home, in alignment with government directions, and provided them with the necessary means to be effective and through frequent interactions, connected with their colleagues. Upon return to work, we implemented a batching system based on a room-by-room capacity assessment to implement physical distancing measures, in line with health authority guidance.

Further, we made amendments to our premises to add further safety precautions, from changes to the actual furniture and layout to the addition of Plexiglas barriers between seats, where deemed necessary by our Health and Safety experts. We installed sanitization gates and dispensers throughout our facilities and provided our staff with Personal Protective Equipment. We ensured that staff working from the office are frequently tested for potential COVID-19 infection. In cases of infection among staff members and their families, we implemented robust contact tracing among our workforce, followed by additional testing and instructions to work from home. And we continue to date following such guidelines while anticipating an end to the pandemic.

Another major focus has been Clean Energy operations and assets in the UAE and around the world. Masdar had to work around travel restrictions, lockdown orders, disrupted logistics and manufacturing, physical distancing measures on site and other challenges. Dedicated staff on the ground worked tirelessly to ensure continuity of operations not just at UAE-based sites, but all around the world during this pandemic, supported by our Business Continuity Management (BCM) task force at HQ.

Furthermore, another priority was Masdar City for which Masdar has the master-developer responsibility along with owning and operating a number of buildings. The city is home to more than 900 companies and a population in excess of 6,000 so it was necessary that guidelines and precautionary measures reached all tenants and residents as well as staff. Throughout the pandemic, Masdar has been in regular contact with tenants and residents to ensure that they are following guidelines and ensuring their own safety. Masdar has installed the appropriate infrastructure and sterilization procedures, and regularly circulated updated guidelines, which are monitored and enforced as necessary. Masdar City is also home to one of the UAE's PCR COVID-19 testing laboratories and is proud to facilitate a vital part of the country's response to the pandemic.

Masdar is also part of the Vital Industry Task Force with Emirates Global Aluminium, Bee'ah and DP World, to share knowledge, learnings and views on best practice on managing the pandemic. The Task Force puts together executives from all industries to meet virtually and to discuss efforts to prevent the spread of the virus, protect industrial workers and support communities across the nation.



We leave 2020 on track to meet our goal of becoming **one of the 10 largest renewable energy players in the world.**

YOUSIF AL ALI
Executive Director, Masdar Clean Energy



At Masdar Clean Energy, we are proud to be delivering real environmental impact around the globe. Wherever our technology and knowhow are deployed, we see less energy being produced through fossil fuels.

The renewables sector today is experiencing accelerated growth, despite the challenges posed by the COVID-19 pandemic. In fact, we have more than doubled our portfolio from 4 GW at the beginning of 2019 to 10.7 GW now years ahead of target. With renewable energy becoming increasingly cost competitive, we hope to double our generating capacity again in the very near future.

Our portfolio today includes offshore and onshore wind, solar photovoltaic, concentrated solar power (CSP), and waste-to-energy, as well as hybrid projects that incorporate different sets of these technologies for a 100 percent renewable energy solution.

With a presence in over 30 countries across five continents, we leave 2020 on track to meet our goal of becoming one of the 10 largest renewable energy players in the world.

FLOATING PV PROJECT POWERS AHEAD IN INDONESIA



Masdar embarked on its first venture in Southeast Asia at the start of 2020, adding to a global presence that now encompasses North America, Europe, Central Asia, Australia and India, as well as the MENA region.

Through a power-purchase agreement signed in January with Perusahaan Listrik Negara (PLN), Indonesia's state electricity company, Masdar will deliver the first floating solar photovoltaic plant in the country in 2022. The 145 megawatt (MWac) plant, which will also be Masdar's first floating solar PV project, will be built on the Cirata Reservoir, in the West Java region.

Indonesia is the largest energy user in the Association of Southeast Asian Nations (ASEAN) region, and innovative solutions such as this are critical to the country achieving its renewable targets and supporting sustainable growth. The fact remains that 60 percent of Indonesia's electricity supply comes from its ~30 GW of coal plants. Another 24.7 GW is planned, making the country's coal pipeline the fifth largest in the world.

The country is targeting a 23 percent renewables contribution to its energy mix by 2025, rising to 31 percent by 2030, but these targets were set before the impact of COVID on Southeast Asian economies, therefore projects such as Cirata which demonstrate the feasibility and value of renewables are more important than ever before.

The PT Pembangkitan Jawa-Bali Investasi (PT PJBI), a subsidiary of PLN, and Masdar JV will benefit the Cirata community and builds on the strong ties between Indonesia and the UAE. With a large population and growing demand for power, PT PJBI and Masdar are using innovation to accelerate Indonesia's transition to cleaner energy sources.

As the world's largest archipelago country, Indonesia has abundant solar resources, but limited available land. The project demonstrates Masdar's capacity as an innovator to deploy the latest technologies at scale across diverse geographies. Indonesia is currently considering plans to install floating solar PV plants on an additional 60 reservoirs. The success of the project in Cirata could help to motivate those plans further.

A number of other countries in the ASEAN region are also looking at floating solar PV plants, as their expanding populations require them to allocate land resources to housing, agriculture and industry. Floating panels can also be more efficient, due to the water's cooling effect, while they also reduce evaporation, saving fresh water for drinking.

All of this bodes well for the development of this technology in the Southeast Asian market. Masdar will continue to support the development of renewable energy solutions in the region, where there is tremendous potential, given its rapid economic growth.

POWERING PROSPERITY IN THE UAE



In 2020, the UAE continued to drive the cost competitiveness of solar energy technology and production.

This drive has become possible in large part because of two factors: technological innovation, and project structuring and financing.

Indeed, technological advances have made the commercial case for solar power stronger than ever. The cost of installing utility-scale photovoltaic solar power has fallen 82 percent since 2010, according to the International Renewable Energy Agency (IRENA).

Masdar was one of the region's first to deploy distributed solar solutions through rooftop PV installations on top of Masdar City buildings. We were also an early driver of solar power in the region, developing the Masdar City 10 MW Solar Photovoltaic Plant back in 2009.

Since then, we have achieved several regional and global firsts, including the Shams 100 MW solar plant, which was the largest CSP plant in the world when launched in 2013.

Shuaa Energy 2 – the third phase of the Mohammed Bin Rashid Al Maktoum Solar Park in Dubai is the latest example to take shape.

As part of a consortium, Masdar led development of this phase, which comprises 800 MW, and is part of what will be the largest single-site solar park in the world, with a planned capacity of 5,000 MW by 2030.

Phase Three was inaugurated by UAE Vice-President and Prime Minister and Ruler of Dubai, His Highness Sheikh Mohammed bin Rashed Al Maktoum in November. The third phase is also the world's largest PV plant to use solar tracking technology to follow the path of the sun, enhancing panel efficiency. It is also the first solar park of its kind in the world to use robots to clean the solar panels without the need for water, making it more efficient and conserving a valuable resource.

Masdar's selection after bidding a record low price for solar power generation of 2.99 US cents per kilowatt hour (kWh) was a game-changing moment for the renewable energy sector, showing that innovation is possible at low costs.

That was taken a step further in July 2020 when a consortium led by Abu Dhabi National Energy Company (TAQA) and Masdar, was selected to work alongside French electric utility company EDF and JinkoPower, to develop the world's largest solar power plant in Abu Dhabi with a capacity of 2,000 MW, at a new record low rate of 1.35 US cents per kilowatt hour (kWh). Al Dhafra Solar PV IPP project achieved financial close in December 2020.

USA: RENEWING THE ENERGY PARTNERSHIP



As the second largest renewable energy market in the world in terms of installed power capacity, the United States (US) offers considerable scope for further growth and diversification of Masdar's renewable energy portfolio.

We welcome the positive momentum that the new administration is expected to generate in the renewables sector. President Joe Biden's Build Back Better initiative, under which \$2 trillion will be invested in US infrastructure over four years, recognizes the importance of making the clean energy transition central to economic recovery, and demonstrates that investment strategies targeting both the economy and the climate need not be mutually exclusive.

The strong policy action on the ground is evident at a state level. For example, California is committed to 100 percent zero-carbon electricity generation by 2045, while Texas accounted for more than a quarter of all corporate renewable energy deals signed around the world last year.

It is in large part due to this coordinated and concerted action that we see the US as one of the largest accessible markets for Masdar.

In 2019, we acquired a 50 percent interest in two wind farms in Texas and New Mexico – our first-ever foray into the US market.

We built on this with our second strategic investment in the US in a deal with EDF Renewables North America. Under the terms of the agreement made in August 2020, Masdar acquired a 50 percent interest in three additional utility-scale wind farms in Nebraska and Texas totaling 815 MW.

The agreement also included the acquisition of three photovoltaic (PV) solar projects in California – two of which include battery energy storage systems – totaling 689 MW of solar and 75 MW of lithium-ion battery energy storage. These agreements underscore our confidence in the US renewables market and increase the size of our US portfolio of wind, solar and battery storage assets to 1.8 GW.

All six of these projects are currently under construction and set to begin commercial operations in 2021. When completed, the projects will displace more than 3 million metric tons of carbon dioxide annually.

I am proud of what we achieved in 2020. In the years ahead, we aim to do more of what has made our city sustainable over the past decade.

ABDULLA AHMED BALALAA
Acting Executive Director,
Sustainable Real Estate



Since breaking ground in 2008, Masdar City has embraced one vision: Creating a commercially viable and sustainable city that provides a good quality of life with the lowest possible environmental footprint. With this principle in mind, I believe we are at a point – 12 years later – where Masdar City has become a template for how a sustainable urban development should operate.

Today, the City comprises one of the largest clusters of low-carbon buildings in the world, playing host to many organizations – such as the International Renewable Energy Agency (IRENA) and UAE Space Agency headquarters – that are all committed to advancing the sustainability agenda.

Masdar City is also a hub for innovation, research and development, advancing real-world solutions in energy and water efficiency, mobility, and AI. An example of this in action is Bustani – a sustainable smart farming showcase that Masdar established with the UAE Food Security Office and our partner Madar Farms. The showcase at Masdar City is demonstrating emerging farm solutions that will help UAE residents become more self-sufficient in meeting their everyday food needs.

There are many more examples of this breadth of innovation taking shape at Masdar City. The City is home to the only planned and approved R&D cluster in Abu Dhabi and hosts several pilot projects across mobility, transportation, renewable energy and sustainable living. It is also the headquarters for the Mohamed bin Zayed University of Artificial Intelligence (MBZUAI) – the world's first university dedicated to AI. The City is also home to more than 900 companies from six continents.

I am proud of what we have achieved in 2020. In the years ahead, we aim to do more of what has made our city sustainable over the past decade. We will continue to research and provide solutions in sustainable urban development that can be shared with the world. We will continue to support and foster an innovation ecosystem focused on advancing sustainability, clean technology and future industries. And we hope to continue to encourage others to join us on our sustainability journey, and support businesses as they join our innovation ecosystem.

A CITY OF THE FUTURE

Masdar City is a sustainable mixed-use community and free zone, with a technology and innovation cluster at its core, playing a role in contributing to Abu Dhabi's economic development. Masdar City has attracted like-minded sustainability-driven organizations playing a major role in advancing the global sustainability agenda.

Some of the City's anchor tenants include:

IRENA

The International Renewable Energy Agency (IRENA) is the first intergovernmental organization to support countries in their clean energy transition.

In 2011, the City was announced as the permanent location of the IRENA headquarters, making the agency the first intergovernmental organization to be based in the Middle East.

Together, Masdar and IRENA are building synergies to achieve a clean energy future for the world. The organization is a long-standing partner of ADSW, and hosts the annual IRENA Assembly in the lead up to the week.



Siemens

In 2014, Siemens inaugurated its Middle East headquarters in Masdar City, a significant milestone for the company, which is a global technology pioneer, focusing on electrification, automation and digitalization.

The move has strengthened Siemens' presence in Abu Dhabi, complementing its operations across the UAE and building on its strategic and value relationship with Masdar and other shareholders.

2020 marked the brand launch of Siemens Energy at the company's regional HQ. The new pure-play energy-focused company is committed to making sustainable, reliable, and affordable energy possible, and will benefit from its co-location with Masdar, as the two companies seek to advance sustainability technologies for the region and the world.

Emirates Nuclear Energy Corporation (ENEC)

ENEC is responsible for the implementation of the UAE Peaceful Nuclear Energy Program. In addition to its responsibility for the design, construction and ownership of the UAE's first nuclear energy plant, the company aims to engage with the UAE community to ensure a high level of awareness and understanding of the program and the role of nuclear energy in the nation's energy portfolio.

ENEC celebrated the start of operations at its first nuclear reactor at Barakah, in the UAE's western region. The Barakah plant will supply clean baseload electricity to the grid - complementing intermittent renewable sources of energy such as solar and wind. Once fully operational, it will help prevent the release of 21 million tons of carbon emissions - the equivalent to removing 3.2 million cars off the road annually.

Honeywell

Honeywell is a global Fortune 100 software-industrial company and a leading enabler of smart buildings and smart cities. In 2019, the company launched the Honeywell Masdar Innovation Center in Masdar City. The Center is home to the latest automation solutions from across the globe and the region, including those assembled in the UAE. It includes cutting-edge solutions for smart buildings and cities as well as technology for fire, security, personal safety, and intelligent wearables.



Saint-Gobain

The Saint-Gobain Group mobilizes its expertise and provides a range of solutions for buildings that are comfortable, more energy efficient and more pleasant to live in every day.

In partnership with Masdar City, Saint-Gobain is currently developing its first Multi Comfort House in the Middle East at Masdar City. The house is one of 30 similar projects around the world and the first in a desert climate. When completed, the house will demonstrate Saint-Gobain's patented technology aimed at improving health and well-being by optimizing the human experience within the built environment.

Mohamed bin Zayed University of Artificial Intelligence

The world's first university for AI was launched at Masdar City in October 2019. The Mohamed bin Zayed University of Artificial Intelligence is a graduate-level research institution that will welcome its first international cohort of students in early 2021.

It aims to empower students, businesses and governments to advance AI as a global force for positive progress and will prioritize research through platforms such as an AI-specialized knowledge center.

G42

G42 is an AI and cloud computing company dedicated to providing scalable solutions for government and private-sector clients in energy, aviation, healthcare, finance, hospitality and smart city development.

Besides playing a leading role in the digital growth of the UAE, the company is expanding its operations in the Middle East & North Africa and Central Asia.

It opened its office in Masdar City in 2020, and soon after launched a laboratory at Masdar City that was built to address the need for population-scale detection and diagnosis of COVID-19 in the UAE. The lab is capable of conducting tens of thousands RT-PCR tests per day and is the first in the world of this scale to be operational outside of China.

THE CATALYST

The Catalyst is the region's first clean technology startup accelerator, helping new businesses access funding, training and mentorship prior to commercialization. Based in Masdar City, the joint venture with BP provides selected applicants with funding and other benefits such as office space and access to a network of mentors and investors to advance the companies' development and accelerate their potential. It has encouraged entrepreneurship and innovation in the City.

The Catalyst is based in Masdar City's Tech Park, which hosts all eight of the 'catalyzer' companies, and provides a base for research and development, in addition to other enterprises operating in the sector.

The 'catalyzer' companies include (non-exhaustive list):

SOLVA TECHNOLOGIES

Solva Technologies is an environmentally friendly transportation startup that offers fully electric motorbikes optimized for functionality and sustainability. The motorbikes are fitted with proprietary technology that collates all data onto a dashboard.



DE L'ARTA

De L'Arta is an R&D company that focuses on maximizing the potential of the UAE's natural resources through its skincare collection, using an extract from a UAE native desert plant. The collection uses a biodegradable formula that is suitable for all skin types.

De L'Arta's research projects also include efforts in soil regeneration and the upcycling and management of waste.

VOLTS BATTERY STORAGE

Volts Battery Storage is developing a smart battery management system that could power an entire house from a renewable energy source. The company already has 15 units installed as part of pilot projects, in its bid to encourage a smarter, more sustainable lifestyle.

SERAMIC MATERIALS

Seramic Materials recycles industrial waste such as fly ash or steel slag into value-added ceramics. Born out of the Masdar Institute – now part of Khalifa University – the company is committed to the concept of circularity, cutting down on energy consumption, increasing the value of resources and length of product life cycles and reducing waste.

QS MONITOR

QS Monitor is an online platform for the optimization of food import licensing and timelines. The platform eliminates paperwork, testing and inspection, streamlining the process to reduce import time by 13-23 days.

QS Monitor is working to support the UAE's imported food supply by providing easy access to the UAE market for small producers and farmers around the world.

byAlinePate

byAlinePate is developing a smart-home app-controlled indoor garden system called the HydroArtPod. The HydroArtPod enables users to grow fruits and vegetables at home with minimal maintenance and efficient resource utilization.

R&D AND TECHNOLOGY INITIATIVES



Masdar utilizes a technology-agnostic approach to renewables deployment, selecting the technologies that are best-suited to country, climate and partner needs. Many of these technologies, such as photovoltaic thermal technologies and energy storage technologies, undergo testing at Masdar City to optimize their viability ahead of any potential deployment.

Key R&D initiatives in 2020

The Technology Working Group

The Technology Working Group is a new initiative bringing together technology and market experts across Masdar to assess the implementation of advanced technologies in existing and new projects. Newly proposed ideas by the Group include technology assessment/testing in the areas of agrivoltaics, floating solar and waste utilization.

The Technology Working Group was launched before the full impact of the global pandemic was felt, and its establishment can, with the benefit of hindsight, be seen as timely given the need to fast-track the global sustainability movement.

Renewable energy storage site

In 2019, Swedish solar energy company Azelio partnered with Masdar and Khalifa University to run a pilot project evaluating new technology in power storage.

Earlier this year, Azelio signed an agreement with ALEC Energy to prepare and set up the installation site in Masdar City. The aim of the site is to evaluate Azelio's technology for inclusion in the Masdar project portfolio.

The project hopes to test and demonstrate Azelio's Stirling engine systems and integrated thermal energy storage solutions' suitability for Masdar renewable energy projects that use solar or wind power, or projects that provide off-grid solutions.

ENERGY IS AT THE HEART OF OUR SUSTAINABLE FUTURE

BY FRANCESCO LA CAMERA
 Director-General of the International Renewable Energy Agency (IRENA)



To fully realize the benefits, governments need to increase their ambitions and align their climate goals with concrete energy plans.



Thirty years from now, our world will be strikingly different. The United Nations predicts a world population of around 9.7 billion people by 2050 – nearly two billion more than today. Much of this population growth will take place in cities, where two-thirds of citizens will live in hope of opportunity and prosperity in 2050. As our cities grow, however, unique pressures will bear down on our resources.

The UN 2030 Agenda for Sustainable Development seeks to address these seemingly competing interests. The world body's sustainable development goals (SDGs) reconcile the pursuit of growth with the need for a more inclusive, equitable and sustainable model. Without such a roadmap human activity threatens the delicate balance of our environment and in turn, promises to destroy the social and economic systems that sustain us.

Energy is key to this

Energy has powered growth, enabled prosperity and inspired the innovations that have shaped our world. But as we tackle unique challenges today, our energy system must evolve. In this new age of sustainable development, energy's contribution to progress is strengthened by the promise of renewables.

An energy system based on renewables, complemented by green hydrogen and modern bioenergy can deliver a future of economic growth, job creation and improved health, whilst moving the world towards climate stability and greater resource security.

Indeed, renewables are fundamental to the 2030 world targeted by the sustainable development goals. SDG 7 – the first global goal on energy – is the pursuit of affordable, reliable, sustainable, and modern energy access for all. This goal is built around the agile, cost-competitive nature of modern renewable energy technologies, which now account for a growing share of global power capacity. Today, around 35 percent of global electricity generation capacity is renewable.

The tools needed to realize this sustainable future exist now. Proven renewable energy solutions are increasingly cost-competitive and deployable at large scale. To fully realize the benefits, governments need to increase their ambitions and align their climate goals with concrete energy plans. We have entered a critical time in that respect. Between now and COP26 next year it is critical that national governments fully account for renewables' potential in climate commitments.

Such decisions make full economic sense. Renewables now outcompete the cheapest fossil fuel on cost and as a result are actively displacing both new and existing coal power. IRENA estimates that by 2021 up to 1,200 GW of existing coal-fired capacity will cost more to operate than new utility-scale solar photovoltaic will cost to install.

Renewables are also resilient. As the economic downturn ravaged the oil markets and low electricity demand reduced fossil fuel-based generation, renewables displayed remarkable resilience. In the European Union and United Kingdom, for instance, coal-based power generation fell by over a quarter in the first three months of 2020, compared with 2019, as a result of falling demand due to COVID-19. Renewable energy reached a 43 percent share of the electricity mix.

Governments, businesses, and communities are already investing in an array of renewable solutions, which are abundant and available in nearly every country on the planet. But the transformation of the global energy system is a formidable challenge that will require a myriad of solutions to reverse the current balance of non-renewable and renewable supply.

Most of all, it will require investments at scale to be channeled toward renewables. IRENA's partnership with Abu Dhabi Fund for Development (ADFD) has made an important contribution, allocating US\$350 million for innovative projects in developing countries. Building on this success, a revamped renewables project facility along with IRENA's Climate Investment Platform (CIP) will take the IRENA-UAE energy partnership to the next level.

Transforming the global energy system stands to offer significant long-term socioeconomic benefits, from job creation and GDP growth, to improved food and water security. It is a vital element of the sustainable development agenda and a prerequisite for the achievement of most of its goals. Sustainability is unquestionably the most important aspect of long-term policy and investment decision making today. If we are to offer future generations anything like the opportunities afforded to us, we must mainstream it into everything we do.

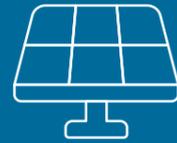


OUR ENVIRONMENTAL IMPACT

Across all operations and project sites, Masdar actively identifies potential environmental risks and suitable controls. Our management plans establish requirements for impact identification, monitoring and controls in order to manage risk, avoid impacts and ensure an appropriate level of mitigation where necessary.



6.5m+
tons of CO2 displaced



11,000⁽¹⁾ GWh+
energy produced from clean sources during reporting period



equivalent to



1,4m+
cars off the road for one year

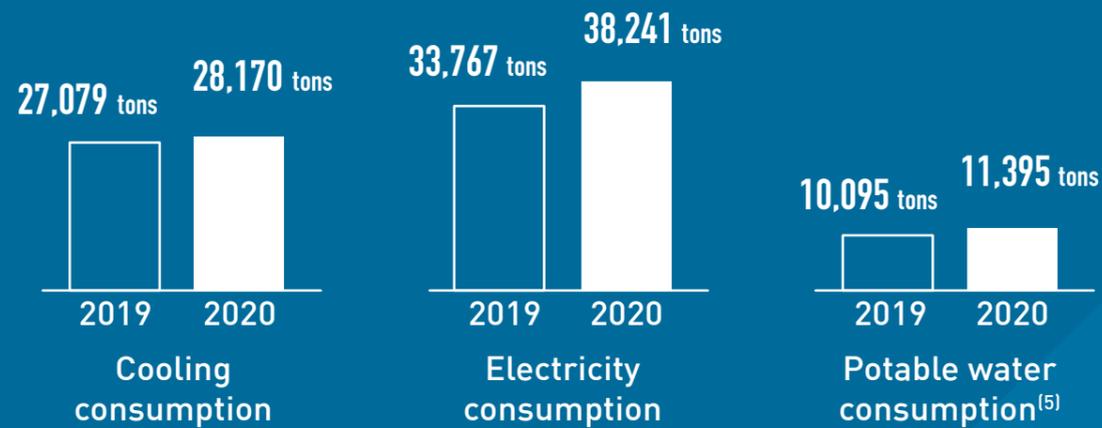


enough to power



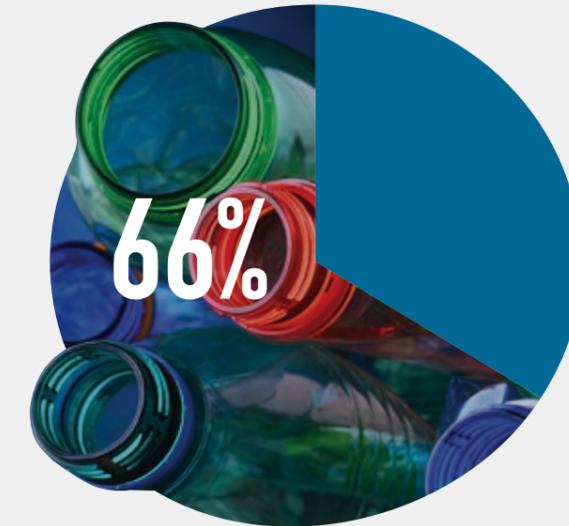
2m+
homes with electricity for one year

MASDAR CITY RELATED EMISSIONS (CO2 EQUIVALENT)⁽²⁾⁽³⁾⁽⁴⁾



(1) Figures annualized based on November 2020 actuals
 (2) Masdar-owned real estate assets
 (3) 2019 figures restated to include the consumption of buildings under construction which were completed in 2020
 (4) 2020 figures annualized based on November 2020 actuals
 (5) Potable water consumption of 528,023 m3 in 2020

Waste recycled as a percentage of total waste generated in 2020



87 tons CO2 emissions from Masdar City waste generated⁽¹⁾⁽²⁾

545⁽¹⁾⁽²⁾ tons

2020 Operational waste diverted from landfill:



8.5% Paper & Cardboard
2.2% Plastic
0.2% Cans
0.1% Glass

(1) Masdar-owned real estate assets
 (2) Figures annualized based on November 2020 actuals



I believe that the momentum behind **sustainable & responsible investment** continues to grow.

NIALL HANNIGAN
Chief Financial Officer

When Masdar was launched, renewable energy and sustainable real estate were nascent industries particularly in the GCC and MENA region, whilst sustainability linked investments were nowhere near the top of the global agenda. Almost 15 years later, I can confidently say this has changed. The world is now taking climate change mitigation more seriously. Renewable energy is part of the mainstream, with an undeniable place in the energy mix, it offers cost competitive solutions when compared with conventional sources. Globally, we are also seeing an increased focus on sustainable development and sustainability linked investments.

There is no doubt that this year has been a challenging one, but Masdar has demonstrated its resilience to challenging global market conditions, benefitting from a strong portfolio of high quality de-risked assets and investments, which are diversified across, sectors, technologies and geographies, and an adaptable and flexible business model. We have in fact continued to move forward, growing our portfolio of renewable energy and sustainable real estate assets and expanding our global geographical presence with entry into new markets such as Indonesia, Australia, Uzbekistan, Azerbaijan and others. Our entry into markets such as Uzbekistan and Indonesia demonstrates our willingness to be a driving force for the development of the renewable energy sector in new and emerging markets and our capacity to deliver innovative cost competitive solutions, deploying the latest technologies at scale.

We are also continuing to work to support sustainable real estate development and investment, through the completion of further development works within Masdar City and by launching the UAE's first sustainable real estate investment trust (REIT) – the Masdar Green REIT established at Abu Dhabi Global Market (ADGM). This REIT is a significant milestone for green investment in the region, and demonstrates Masdar's leadership in sustainable development. As the first of its kind in the region, we are confident that the REIT will contribute to the development and strength of Abu Dhabi's real-estate sector and bring in greater investment from domestic and international investors that want to invest in sustainable & responsible investments.

I believe that the momentum behind sustainable & responsible investment continues to grow and it is a path that cannot and will not be deviated from. In the coming years, I believe we will see increased opportunities across all aspects of sustainable investment as well as increased competition, driving the need for innovative and cost competitive financing solutions, and an acceleration on delivery against sustainability targets.

SUSTAINABLE INVESTMENT

Earlier this year, research from the United Nations Environment Program (UNEP) and Bloomberg New Energy Finance indicated that global investment in new clean energy capacity rose 1 percent in 2019 to US\$282.2 bn.

Governments and companies around the world have committed to adding some 826 GW of new non-hydro renewable power capacity to 2030 at a likely cost of around US\$1 trillion. However, this falls short of what is needed to help limit world temperature rise to less than 2 degrees Celsius.

In response to the COVID-19 pandemic, governments are also implementing economic plans and support packages with the aim of stimulating economies. Increasingly, these packages have a significant emphasis on ESG as a means to driving the green economy and helping to achieve obligations under the Paris Accord.

Outside of investment in renewable energy, more capital is also required to finance areas such as sustainable real estate. There is significant investor interest in sustainability, however more must be done to bring opportunities to market.

Masdar is supporting the development of the sustainable investment sector through a capital commitment to our renewable energy portfolio that, to date, stands in excess of US\$7 billion. This is led by the successful commercializing of sustainable technology to help diversify the UAE's economy and achieve the sustainability objectives of the UAE.

The clean technology roadmap today is very broad, encompassing everything from battery storage, carbon capture, utilization and storage (CCUS), and green building technology to hydrogen power. These require significant investment in order to become commercially viable and addressing this funding gap is part of our mission at Masdar.

One of the reasons why countries such as the UAE have made such rapid progress in the adoption of renewable energy and sustainable technology is because the leadership has defined a clear vision.

In 2020, we expanded our global footprint with investments in Indonesia, Uzbekistan and Azerbaijan. We also finalized our second strategic investment in the US in a deal with EDF Renewables North America to invest in eight clean energy assets, following our debut in the market last year. It resulted in the acquisition of a 50 percent stake in a 1.6 GW clean energy portfolio.

Closer to home, our reputation as a successful commercially viable business and a leading innovation hub has been recognized by ADQ, one of the region's largest holding companies. The institutional investor launched an US\$300 million venture fund – the Alpha Wave Incubation Fund – that will target early-stage businesses in India and South-East Asia to establish global or regional headquarters in Masdar City.

We are also dedicated to creating our own investment instruments to help facilitate the deployment of capital. Earlier in the year, Masdar announced at Abu Dhabi Sustainability Week that it was launching the UAE's first sustainable real estate investment trust (REIT) – the Masdar Green REIT. Partnering with Emirates NBD Asset Management, the Masdar Green REIT has been established at ADGM as a Qualified Investor Fund and offers an attractive opportunity to invest in a unique portfolio of stable, revenue generating sustainable real estate assets.

The portfolio includes four commercial properties within Masdar City covering a net leasable area of 57,493 sqm. They consume approximately 40 percent less energy than comparable buildings in Abu Dhabi, giving them a rating of three Pearls or above on Abu Dhabi's Estidama Pearl Building Rating System, while one of them is also LEED Platinum-certified.

As the first of its kind in the region, the Masdar Green REIT is expected to facilitate more sustainable real estate assets coming to market. It further brings to life the Abu Dhabi Sustainable Finance Declaration, which was signed by 36 public and private sector entities including Masdar and is aimed at establishing a healthy and sustainable finance industry that supports the UAE in attaining the UN's SDGs.

We are investing in and testing new mobility solutions that further advance the city's sustainable transportation network. This has included the piloting of French autonomous vehicle, the NAVYA Autonom Shuttle, a fully-electric vehicle that can transport up to 12 people around the city.

Demonstrating Masdar's continued commitment to developing sustainable cities and communities, we were announced as the first commercial investor in the UK's Charging Infrastructure Investment Fund in late 2019. The fund aims to more than double the country's electric vehicle charging infrastructure with 3,000 new rapid charge points by 2024 as part of its efforts to end the sale of petrol and diesel vehicles in the UK by 2030.

SHAPING A RENEWABLES- POWERED FUTURE POST COVID-19



**BY HE DR ABDULLAH BELHAIF
AL NUAIMI**
Minister of Climate Change and Environment

As countries focus on bouncing back from the fallout of the pandemic, we are seeing a unique window of opportunity to promote a green recovery that balances sustainability with economic growth.

COVID-19 is not only a global health emergency, but it has also taken a severe toll on the socio-economic development of all nations. As countries focus on bouncing back from the fallout of the pandemic, we are seeing a unique window of opportunity to promote a green recovery that balances sustainability with economic growth.

In addition to being an environmental obligation, green recovery makes sound economic sense. On average, investing in more resilient infrastructure in low- and middle-income countries would bring US\$4 in return for each US\$1 invested, according to a 2019 report from the World Bank and the Global Facility for Disaster Reduction and Recovery (GFDRR).

And a study by the Ministry of Economy, Majid Al Futtaim Holding, and ADGM indicates that making, assessing, and managing investments based on ESG factors is gaining momentum worldwide.

As of 2019, 93 percent of the 250 largest corporations in the world reported on their sustainability performance using the Global Reporting Initiative (GRI) standards that help businesses understand and communicate their impact on global issues, such as climate change.

Furthermore, the study points out that 75 percent of retail and institutional investors applied ESG principles to at least a quarter of their portfolios in 2019, a considerable increase from 48 percent in 2017. Banks have also been increasingly tying loan terms to ESG performance, as sustainability-linked loans amounted to US\$71.3 billion in the first three quarters of 2019.

On the home front, tackling challenges head on and transforming them into opportunities for development has always been the UAE's modus operandi. Throughout the tough times posed by the COVID-19 pandemic, the country has remained committed to making its recovery green through encouraging investment in three main sectors: digital economy, food security, and green economy.

In line with its transition to the green economy, the UAE drives the deployment of renewable energy at home and abroad. Recognizing that renewables hold the solution to many of the challenges the world faces today, such as climate change, air pollution, and economic slowdown, the country has increased its renewable energy capacity from a mere 10 MW in 2009 to 2,400 MW today, with an additional 6,000 MW either under development or planned until 2030.

The UAE has invested more than US\$40 billion in domestic clean energy projects, and by 2030, about 30 percent of its installed energy capacity will be powered by clean sources.

Furthermore, the UAE has expedited the global shift to renewable energy through repeatedly breaking world records for the lowest levelized cost of electricity (LCOE), and investing in renewables projects in 70 countries.

Masdar is a significant contributor to the country's renewables journey. The flagship energy company has leveraged its expertise to directly develop renewable energy solutions in over 30 countries and counting. In addition to improving electricity access, Masdar's projects have created job opportunities, supported the development of local communities and economies, and cut down on pollution. They also enhanced the climate change resilience of the nations and reduced their dependence on imported fossil fuels.

As we come out of the pandemic stronger and wiser, greater collaboration and coordination in developing appropriate responses within and across countries will be key to building a renewables-powered future. A collective approach to deploying renewable energy will help realize that potential, and maximize its benefits to climate, health, energy security, and the environment.



SOCIAL CONTRIBUTION

What makes me most proud is that our work continued despite the challenges presented by 2020.

DR LAMYA NAWAF FAWWAZ
Executive Director,
Brand & Strategic Initiatives



As a commercially viable business that is a responsible investor, Masdar is equally invested in driving social impact in communities around the world. The UN's Sustainable Development Goals are at the core of our strategic initiatives, which include Abu Dhabi Sustainability Week (ADSW), Zayed Sustainability Prize, Women in Sustainability, Environment and Renewable Energy (WiSER), and Youth 4 Sustainability (Y4S). Through these initiatives, we are building on the UAE leadership's vision to help our world achieve greater sustainability and security.

Each year, Abu Dhabi convenes policy makers, business and government leaders, innovation pioneers and the next generation of sustainability leaders, with the objective of facilitating dialogue and inspiring action around the global sustainability agenda. For over a decade now, ADSW, a global knowledge platform, has been playing a pivotal role in contributing to the conversations around energy and climate change, water and food, the future of mobility, space, biotechnology in healthcare, and technology for good.

WiSER continues to provide year-round support to empower women to succeed across the sustainability industry and Y4S supports students and young entrepreneurs.

The Zayed Sustainability Prize, named in honor of the UAE's founding father, the late Sheikh Zayed bin Sultan Al Nahyan, is a global award that recognizes sustainability and humanitarian solutions. To date, the Prize's 86 winners have either directly or indirectly impacted the lives of more than 352 million people around the world.

What makes me most proud is that our work continued despite the challenges presented by 2020. Our strategic initiatives found creative and innovative ways of continuing to deliver impact – online and offline – as we empower individuals and communities around the world.

DELIVERING SOCIAL IMPACT IN THE UAE AND BEYOND



Guided by the legacy of the UAE's founder the late Sheikh Zayed, the country has been at the forefront of efforts to accelerate sustainable development.

Masdar not only has a proven track record in developing renewable energy projects, pioneering sustainable urban development, advancing clean-tech innovation, but also in delivering industry and knowledge platforms including ADSW.

Our work through our strategic initiatives and platforms is helping change attitudes and identifying and empowering sustainability champions.



840+

exhibitors



45,000+

attendees from
170 countries



500+

speakers

ADSW 2020

ADSW has evolved into one of the world's leading sustainability gatherings, becoming a global catalyst for the acceleration of sustainable development. The week's major international events include the IRENA Assembly, the Atlantic Council Global Energy Forum, the Future Sustainability Summit, the World Future Energy Summit Exhibition and Forums, and the Abu Dhabi Sustainable Finance Forum.

Together, these events bring leaders from around the world to share knowledge, define strategies, and demonstrate technologies that will drive human progress.



2,373

submissions for
2020 edition



352m+

Impacting 352 million+ people
globally

The **Zayed Sustainability Prize** recognizes small and medium sized enterprises, non-profit organizations and global high schools for their innovative and impactful solutions in sustainability.

Over the past 12 years, the Prize has awarded 86 winners. Collectively, they have, directly and indirectly, positively impacted the lives of over 352 million people through the implementation of sustainable solutions around the world.

In 2019, the Prize announced the launch of its humanitarian initiative, 20by2020. As part of the initiative's first phase, a total of 10 sustainability focused deployments have been rolled out across energy, health, water and food-related solutions in Nepal, Tanzania, Uganda, Egypt, Jordan, Cambodia, Madagascar, Bangladesh, Indonesia and Costa Rica. The initiative continued throughout 2020, in spite of the pandemic, with partners working together across continents to ensure the safe and timely delivery of solutions that impact people at the grassroots.

The initiative will continue through 2021 and deploy solutions across 10 countries, with scheduling dependent on country-specific conditions around COVID-19.



The Women in Sustainability, Environment and Renewable Energy (WiSER) platform is dedicated to inspiring women to play an active role in addressing global sustainability challenges.

The platform is founded on the three core pillars of education, engagement and empowerment. It strives to position women of all nationalities as drivers of change and innovation, while ensuring that their voices are heard across the sustainability debate across policy, technology and business.

In 2020, the fifth annual WiSER forum highlighted digitalization's role in female empowerment, AI and the new digital economy through an expert panel and an engaging roundtable discussion session. This was complemented by a whitepaper, which built on the discussions, exploring the impact of AI on gender parity in the sustainability sector.

Y4S

Youth 4 Sustainability (Y4S) invests in and actively supports the development of young people, enabling them to become the sustainability leaders of tomorrow. The platform is under the patronage of His Highness Sheikh Khalid bin Mohamed bin Zayed Al Nahyan, Member of the Abu Dhabi Executive Council and Chairman of the Abu Dhabi Executive Office.

Aligned with the UN SDGs and the UAE's national strategy, Y4S has introduced a series of programs focused on students and young entrepreneurs, including the Sustainability Ambassadors and Future Sustainability Leaders programs.

These programs allow Y4S members to participate in a number of activations that run throughout the year. In 2020, these included a virtual innovation challenge to help build resilience in food supply chains, in addition to a series of virtual workshops and lectures, ranging in topics from space innovation to AI.



Strategic Platforms

Masdar's initiatives and world-class industry platforms are advancing the global dialogue on sustainability through the exchange of knowledge and expertise.



UAE-Caribbean Renewable Energy Fund

In January, the UAE-Caribbean Renewable Energy Fund (UAE-CREF) announced its entry into the second cycle of a three-year plan to build climate-resilient renewable energy projects in 16 Caribbean Island nations. The new development and funding agreements for the Dominican Republic, Haiti, Guyana, Grenada, Saint Kitts and Nevis, Trinidad and Tobago, and Suriname cover:

- the building of a solar photovoltaic (PV) carport and rooftop project in the Dominican Republic
- a solar PV and battery hybrid project for the village of Dondon, Haiti
- a solar PV and battery hybrid plant on the island of Wakenaam, Guyana
- a solar PV and battery hybrid project is planned for Carriacou in Grenada
- two solar PV desalination plants will be developed in Saint Kitts and Nevis
- a solar PV and battery hybrid plant in Suriname
- a solar PV carport in Trinidad and Tobago

Construction of projects in Antigua & Barbuda, Belize and Dominica started in 2020.

In March 2019, three climate-resilient solar power projects were inaugurated as part of the first cycle of funding. The projects are located in the Bahamas, Barbados, and Saint Vincent and the Grenadines.

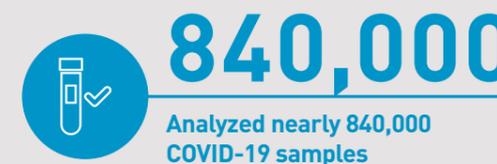
UAE-CREF is a partnership between the Ministry of Foreign Affairs and International Cooperation (MoFAIC), ADFD and Masdar, which is leading the design and implementation of the selected projects.



Incubating innovation

The Catalyst is the region's first clean technology startup accelerator based in Masdar City, and helps startups accelerate their business through funding, training and mentorship prior to commercialization. For more information, see page 28.

Overall, over the year, the G42 lab in Masdar City:



COVID-19 response

Masdar City is home to G42 Laboratories, one of Abu Dhabi's most important focal points for conducting COVID-19 tests. The high-volume security testing facility was built on site earlier this year in two weeks and was the first of its kind outside China to be processing thousands of tests daily.





OUR PEOPLE

We work hard to attract, develop and retain high caliber talent, not just in the UAE, but in all the communities we serve.

AHMED BAGHOUM
Executive Director,
Human Capital & Services



At Masdar, our people's well-being is at the heart of our business strategy. We recognize that taking care of our people reflects on our business' success – and this has never been truer than in 2020.

Masdar's ambition has always been to offer our employees a rewarding work experience and a positive work environment that promotes well-being, equity, professional fulfilment, creativity and productivity. This commitment to developing people has not wavered in the face of the COVID-19 pandemic and 'work from home' arrangements.

Instead, we moved quickly to establish an adaptive learning ecosystem that allowed our employees to benefit from existing development programs virtually. We also launched several new initiatives, with a specific focus on mental health and mindfulness, to keep our employees motivated, engaged and happy.

I believe that one of our company's biggest strengths is the diversity of our team, and we work hard to attract, develop and retain high caliber talent, not just in the UAE, but in all the communities we serve. Today, our 288 employees represent 40 different nationalities and a 35 percent female workforce, and I am proud of what we have all collectively overcome and achieved this year.

OUR GREATEST ASSETS



Masdar's success is built on the talented and diverse workforce that represents the UAE and our businesses around the world.

This section provides a snapshot of Masdar as a responsible employer of choice, highlighting our work in 2020, as the organization responded to the pandemic and shifted to remote working at short notice. We have continued to prioritize the safety and well-being of our talent and are committed to building an inclusive culture.

Responsible employer

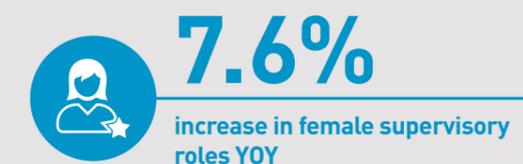
Masdar offers a wide range of benefits to employees to ensure their well-being, commitment to work and overall happiness. Our employees receive life insurance, health care, compassionate leave, maternity and paternity leave, and medical insurance that covers the employee and their immediate family members. Masdar safeguards gender balance in the workplace through measures including ensuring equal pay for men and women.

Talent development

Masdar aims to provide a rewarding work environment and opportunities for employees to help them reach their full potential, improve job satisfaction and contribute to employee motivation and retention.

Through a wide range of development programs for our employees each year, we invest in employee development. This includes on-the-job learning, mentoring, in-person and virtual trainings, which factor in current and future requirements, as well as our people's career roadmaps.

Current development programs on offer to employees include executive coaching; the Masdar mentorship program; and the 'Emerging Leaders' program, which is designed to attract and develop young Emirati talent for future leadership roles.



A select group of Masdar employees have also recently graduated from the 'Pioneers of Success' program. The 18-month program, which is delivered in partnership with Harvard Corporate Learning, prepares Masdar's middle management for future leadership positions. It is tailored to Masdar employees in response to feedback received from Masdar's Employee Engagement survey and reflects the importance of middle management to the company's success.

Health and wellness

A proper work-life balance is an important part of Masdar's promise to our people. Healthy employees feel better, perform better, and contribute to a more positive work environment.

In managing a remote working policy, Masdar adopted a range of initiatives designed to fit into an adaptive and integrated learning ecosystem moving forward.

New initiatives launched include:

- "Creative Home-schooling: A Hypno-Parenting Approach" – sessions designed to help parents manage home-schooling their children during the pandemic
- "Introduction to Mental Health" – sessions designed to help employees cope with mental struggles working from home

Masdar also continued to run several extracurricular activities such as learning Arabic and fitness lessons that were adapted for virtual engagements, following the COVID-19 outbreak.

Workplace safety

At Masdar, the health and safety of our stakeholders is of utmost priority. Providing safe and healthy working conditions is enshrined in our core policies.

Across all operations and project sites, Masdar has robust policies in place to mitigate occupational hazards, and engages all employees and contractors in this effort.

Ethics, diversity and inclusion

Masdar's people are from 40 countries, representing multiple cultural backgrounds that create a unique work environment contributing to greater collaboration, which is crucial to the industry we operate in.

Masdar was one of the first UAE companies to roll out a formal Diversity & Inclusion (D&I) program.

Masdar is committed to ensuring that each employee has an equal opportunity to excel and advance their career.

Through strategic initiatives such as Women in Sustainability, Environment and Renewable Energy (WiSER), the company reiterates our focus on empowering women – particularly Emirati women – to join the renewable energy sector.



GOVERNANCE

I'm very proud to work for an organization that encourages **diversity**, **champions equality**, **embodies respect** and **fosters inclusion**.

NADIA BARDAWIL
General Counsel



Masdar's greatest asset is our people. We attract high caliber talent from across the globe, with our diverse pool of 288 employees representing 40 different nationalities and a 35 percent female workforce.

Diversity harbors new ideas and opinions, but without inclusion, those ideas and opinions cannot be voiced. It is therefore fundamental to Masdar's success that we foster a culture of inclusion. To be truly inclusive, one must focus on respect, equality and ethical behavior – the everyday actions and words of our people must reflect these core principles.

Masdar has several programs designed to empower our people to do things in the right way and to ensure consistent application of our core principles in both internal and external interactions. I am very proud that we have continued these programs during what has been a very challenging year.

Masdar was one of the first UAE companies to roll out a formal diversity & inclusion program and to establish a committee with the formal mandate to continuing Masdar's D&I initiatives. We also regularly check the "pulse" of our organization to ensure that these key principles are demonstrated through all levels of the company.

Masdar offers a unique work environment built upon a culture of sharing and collaboration, committed to equal opportunities and encouraging women, particularly Emirati women, to join the renewable energy sector. I'm very proud to work for an organization that encourages diversity, champions equality, embodies respect and fosters inclusion.

Mubadala Investment Company manages long-term investments that deliver strong financial returns and genuine social benefits for Abu Dhabi. The principles that guide Mubadala's business strategy differentiate the company from other investment organisations.

Partnerships with world-class industry leaders underpin those principles, bringing the knowledge, expertise and technical skills that the UAE needs to build a balanced and sustainable economy.

Masdar is part of Mubadala's Aerospace, Renewables and ICT Platform. The platform incorporates 25 businesses which are predominantly homegrown, globally renowned companies operating in growth industries. Companies in the AR&I platform pride themselves on their deep-rooted partnerships with global players and a strong pipeline of UAE national talent with a background in science, technology, engineering and mathematics (STEM) education and training.

Masdar leverages synergies across Mubadala's diverse business portfolio to accelerate the deployment of renewable energy in local and international markets.

Board of Directors



HE Dr Sultan Al Jaber



Ahmed Saeed Al Calily



Khaled Abdulla Al Qubaisi



HE Dr Ahmad Belhou



Saeed Al Mazrouei



Mohamed Jameel Al Ramahi



HE Razan Al Mubarak



Mohamed Jameel Al Ramahi
CEO



Niall Hannigan
CFO



Nadia Bardawil
General Counsel

Internal Audit

Clean Energy

Yousif Al Ali



Develops and invests in utility-scale renewable energy projects in a global scale with a focus on solar and wind mature technologies

Sustainable Real Estate

Abdulla Ahmed Balalaa



Responsible for developing and operating Masdar City, one of the most sustainable urban communities in the world, and the Masdar City Free Zone

Human Capital & Services

Ahmed Baghoum



Provides the strategic and operational human capital and corporate services required to support the long term goals of Masdar

Brand & Strategic Initiatives

Dr. Lamya Nawaf Fawwaz



Responsible for maintaining and strengthening the brand and reputation of Masdar whilst delivering strategic initiatives

Strategy & Corporate Development

Yousef Ahmed Baselaib



Leads integrated quantitative & qualitative analyses to help set and achieve Masdar's strategic objectives

Masdar is wholly owned by Mubadala Investment Company, a well-renowned international investor which manages long-term investments that deliver strong financial returns and genuine social benefits for Abu Dhabi. Mubadala provides oversight to ensure that robust governance standards and delegation of authority are in place. Our shareholder is also represented on the Masdar Board of Directors to provide advice and guidance. We ensure that there is full alignment with Mubadala’s rigorous governance procedures.

It is critical for us to have the right governance and leadership structure in place to deliver our mission and strategy. Governance is a continuing focus at the company, starting with the board and extending to management and all employees. There are multiple layers of oversight in place, as well as advisory forums that ensure risks are managed quickly and at the appropriate level. The board also regularly reviews the company’s policies and business strategies, and advises and counsels the CEO and the Executive Management team.

The Executive Committee

Members

- CEO (Committee Chair)
- CFO
- General Counsel
- Executive Directors

The Executive Committee’s (ExCom) role is to highlight and analyze key operational and financial developments and issues for the company, and review proposals by members of the committee for decisions or guidance by the company’s CEO.

Investment Committee

Members

- Masdar CEO (Committee Chair)
- Masdar CFO
- Mubadala Aerospace, Renewables and Information & Communications Technology Platform (AR&I) CFO
- AR&I Platform Senior Advisor
- AR&I Director
- General Counsel

The Investment Committee’s role is to ensure that the overall investment process and guidelines of the Company remain fit for purpose, and that the Company’s funds are invested in accordance with the approved process, guidelines, policies and procedures, and strategy. This Committee includes Masdar, as well as Mubadala personnel.

Operating Committee

The Operating Committee’s role is to ensure that key operational and financial developments and issues for matters that fall under the oversight of the Company’s CFO and the Company’s Executive Directors are highlighted, and that responsibilities and actions are highlighted to direct CFO and Executive Directors reporting lines for matters that fall outside or deviate from the approved business plans for each of the reporting lines.

Tender Committee

The Tender Committee’s role is to establish and exercise control over the procurement process and to ensure that contractual risks are managed, and that fair and transparent policies and procedures are followed and that best practices are observed.

Social Activities and Inclusion Committee

The Social Activities and Inclusion Committee’s (SAIC) role is to oversee social activities, inclusion activities and procedures, and to ensure that all SAIC decisions are made in accordance with the existing SAIC charter, which is approved by management.



Internal audit procedures

The Internal Audit department assists the company in its objectives by bringing a systematic and disciplined approach to evaluate risks by ensuring that risk management is appropriately identified and managed, employees’ actions are in compliance with policies, standards, procedures, the code of ethics, and applicable laws and regulations. The program also ensures compliance with any significant legislative and regulatory issues impacting Masdar.

Embedding ethical practice

At Masdar, good ethics are the foundation upon which our business is built. We are committed to embedding ethical practices throughout the organization, and seek to build mutual trust with our customers, suppliers and communities by working honestly and ethically.

Masdar implements a robust ethics and compliance program, reflecting the specific challenges encountered in the countries and industries in which we operate. We apply the same standards across all areas and geographies and continue to look for ways to improve how we detect, prevent and respond to compliance issues.

At Masdar, everyone is responsible for compliance and fostering a culture built on ethics, an idea which is heavily promoted in the organization, through frequent trainings and refresher courses.

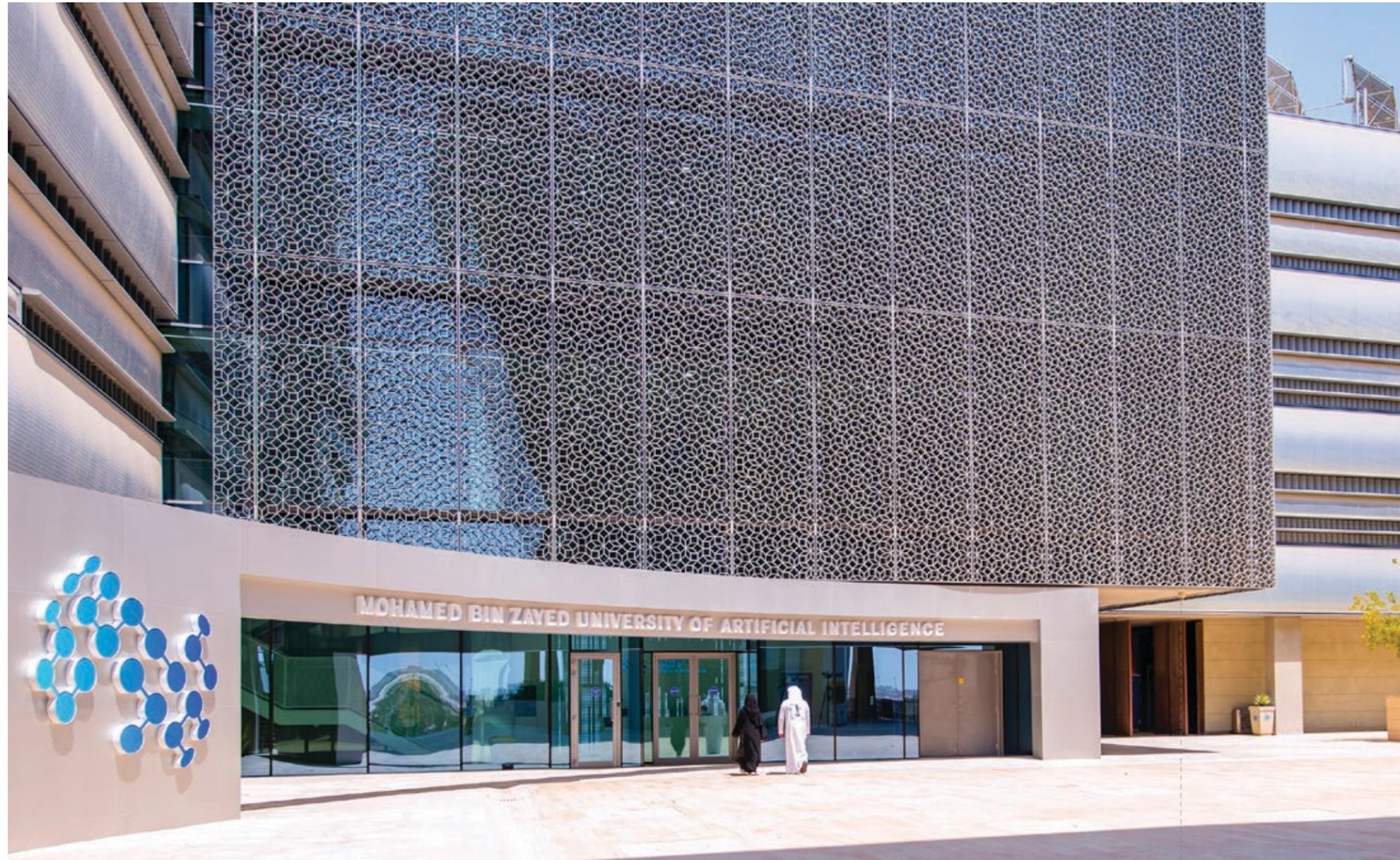
Responsible sourcing & corruption

An effective supply chain is essential to the competitiveness of our business. We are committed to responsible sourcing, which directly references the requirement for Masdar suppliers to adhere to Masdar’s values.

Masdar takes anti-bribery and anti-corruption compliance seriously. We work to ensure that compliance with Masdar’s anti-bribery and anti-corruption standards is understood by both employees and suppliers alike.

To register as a qualified supplier, we ask all companies to adhere to five core principles:

1. The supplier must comply with all relevant local and national laws and regulations with regard to employment practices, benefits, health and safety, and anti-discrimination.
2. The supplier must not use child, forced or involuntary labor in any form.
3. The supplier must comply with all relevant local and national laws and regulations with regard to occupational health and safety, and the provision of health-related benefits to employees.
4. The supplier must comply with all relevant local and national laws and regulations with regard to land and water management, waste and recycling, the handling and disposal of toxic substances, discharges and emissions, noise, transportation of products, and waste.
5. The supplier must strictly comply with all laws and regulations on bribery, corruption and prohibited business practices.



2020 ALIGNMENT WITH UN SDGs

Our role as a global leader in renewable energy and sustainable urban development makes it incumbent on us to use our scale and innovation to help make progress toward the UN SDGs. This year, we completed an analysis of all the SDGs as they relate to our business and resources and identified the goals where Masdar is making a unique and significant impact.

Zero hunger



- Masdar is supporting agri-food tech company Madar Farms. The company first established a test project in Masdar City in 2017 where it piloted its unique vertical farming container, which grows leafy greens using smart systems that utilise less water than conventional farming, conserving an important resource in the UAE's arid landscape
- The Zayed Sustainability Prize recognizes organizations that demonstrate innovative, impactful and inspirational sustainability solutions
- Bustani, a smart home farming showcase at Masdar City, is demonstrating emerging solutions that will help UAE residents become more self-sufficient in meeting their everyday food needs
- QS Monitor, part of The Catalyst program, is an online platform for the optimization of food import licensing and timelines. The company is working to support the UAE's imported food supply by providing easy access to the UAE market for small producers and farmers around the world

Good health and well-being



- Employees receive life insurance, healthcare, compassionate leave, maternity and paternity leave and medical insurance that covers the employee and their immediate family members
- The Human Capital team launched "Introduction to Mental Health" sessions to help employees cope with mental struggles working from home
- Support a culture of good health and well-being through various fitness programs
- Masdar took all necessary precautions to protect all employees during the COVID-19 pandemic

Quality Education



- Through a wide range of training programs for our employees each year, we invest in employee development that considers on-the-job learning, mentoring, in-person and virtual training that consider current and future requirements, as well as our people's career roadmaps
- Masdar's 'Pioneers of Success' program, delivered in partnership with Harvard Corporate Learning, takes place every 18 months and prepares select Masdar middle management personnel for future leadership positions
- Education remains a key focus for our community engagement and development projects
- Masdar City is home to the Mohamed bin Zayed University of Artificial Intelligence, a graduate-level, research-based academic institution that offers specialized degree programs for local and international students in the field of AI

Gender equality



- Through strategic initiatives such as WiSER, we reiterate our focus on empowering women – particularly Emirati women – to join the renewable energy sector
- Female supervisory roles increased by 7.6 percent during 2020

Clean water & sanitation



- Masdar is taking steps to commercialize renewable-powered desalination through projects such as the Ghantoot Desalination Pilot Plant
- The water demand of the city's buildings is approximately 40 percent lower than that of the average building in Abu Dhabi

Affordable & clean energy



- Masdar is developing climate-resilient renewable energy projects in 16 Caribbean Island nations
- Masdar announced 16 new utility-scale clean energy projects in 2020
- 11,000+ GWh of renewable energy generated in 2020

Industry, innovation and infrastructure



- Masdar City is a pioneer in sustainability and a hub for research and development, and host to The Catalyst, a sustainability start-up accelerator. The City is also home to Abu Dhabi's only R&D cluster.
- Masdar City hosts a varied number of organizations committed to advancing the sustainability agenda and spearheading the innovations to realize greener, more sustainable urban living. This includes, among others, IRENA, the UAE Space Agency, and companies like Siemens and Honeywell.
- The City has developed and hosted a number of R&D initiatives. It has also piloted projects across a range of innovation topics covering mobility, transportation, renewable energy and sustainable living such as the Electric Energy Storage Solutions Hub.
- Masdar City is home to integrated innovative smart mobility solutions such as the world's first personal rapid transport (PRT) system, the Navya – the Middle East and North Africa's (MENA) first autonomous shuttle, and the first electric Eco-bus in the region
- Through its projects and R&D work at Masdar City, Masdar has helped commercialize a number of technologies including: bifacial panels, solar tracking technology, self-cleaning solar panels using robots, and zero-net-energy buildings.

Sustainable cities and communities



- Masdar City is home to a business free zone, as well as a residential neighborhood with restaurants, shops, and public green spaces, and is spearheading the innovations to help realize greener and more sustainable urban living
- Masdar's projects are making a sustainable impact on countries around the world
- Masdar City has one of the world's largest clusters of Leadership in Energy and Environmental Design (LEED) Platinum-certified buildings

Climate action



- Masdar's projects have a direct and tangible impact in the fight against climate change around the world
- 6.5 million metric tons of CO2 displaced in 2020 (through all projects in operation)

Partnerships for the goals



- We collaborate with intergovernmental organizations such as IRENA and multinational corporations like EDF and Siemens, to advance the development and adoption of commercially viable solutions in renewable energy and sustainable real estate around the world
- Our commitment to partnerships is further highlighted by our hosting of ADSW, the largest sustainability gathering in the Middle East, and a platform to share knowledge, attract investment and stimulate business partnerships in the clean technology sector



GRI CONTENT INDEX

The GRI Content index is a navigation tool that specifies which GRI Standards are used, which disclosures have been made and where these disclosures can be found in the report.

GRI Standard	Disclosure Number	Disclosure Name	Page Reference/ Direct Response
GRI 102: General Disclosures	102-1	Name of Organization	Abu Dhabi Future Energy Company
	102-2	Activities, brands, products, and services	8, 9, 18, 26, 28, 29, 43, 44, 45
	102-3	Location of Headquarters	Masdar City, Abu Dhabi, PO Box 54115, UAE
	102-4	Location of Operations	8, 9, 11, 26
	102-5	Ownership and Legal Form	State Owned Enterprise (Subsidiary)
	102-6	Markets served	8, 9, 11, 18
	102-7	Scale of organization	7, 26, 27, 28, 29, 34, 35, 48, 49
	102-8	Information on employees and other workers	47, 48, 49
	102-9	Supply chain	55
	102-12	External Initiatives	43, 44
	102-13	Membership of associations	37, 43, 44
	102-14	Statement from senior decision-maker	3, 5
	102-15	Key impacts, risks, and opportunities	3, 5, 20, 36
	102-16	Values, principles, standards and norms of behavior	12, 51, 52, 53, 54, 55
	102-17	Mechanisms for advice and concerns about ethics	55
	102-18	Governance Structure	51, 52, 53, 54, 55
	102-19	Delegating authority	51, 52, 53, 54, 55
	102-20	Executive-level responsibility for economic, environmental, and social topics	51, 52, 53
	102-21	Consulting stakeholders on economic, environmental, and social topics	43, 44, 48, 49
	102-22	Composition of the highest governance body and its committees	52, 53
	102-23	Chair of the highest governance body	52, 53
	102-24	Nominating and selecting the highest governance body	Masdar is part of Mubadala Investment Company (MIC), which manages long-term investments that deliver strong financial returns and genuine social benefits for Abu Dhabi. As part of its responsibility, MIC is responsible for all board appointments.
	102-25	Conflicts of interest	Masdar has multiple layers of oversight in place, as well as a number of committees and discussion forums that ensure risks are managed quickly. The board also regularly reviews the company's policies and business strategies, and advises and counsels the CEO and the Executive Management team on governance matters.
	102-26	Role of highest governance body in setting purpose, values, and strategy	52, 53
	102-27	Collective knowledge of highest governance body	52, 53
	102-28	Evaluating the highest governance body's performance	52, 53, 54

GRI Standard	Disclosure Number	Disclosure Name	Page Reference/ Direct Response	
GRI 102: General Disclosures	102-29	Identifying and managing economic, environmental, and social impacts	14, 15, 55, 58	
	102-30	Effectiveness of risk management processes	54, 55	
	102-31	Review of economic, environmental, and social topics	14, 15, 55	
	102-32	Highest governance body's role in sustainability reporting	52, 53	
	102-33	Communicating critical concerns	54, 55	
	102-34	Nature and total number of critical concerns	Not yet disclosed	
	102-35	Remuneration policies	48	
	102-36	Process for determining remuneration	Masdar uses a remuneration structure which allows a specific minimum and maximum for each grade, depending on experience level and relevance to the specific role	
	102-37	Stakeholders' involvement in remuneration	Masdar's Human Capital policies, including remuneration, are periodically reviewed and approved by the Mubadala Investment Company	
	102-38	Annual total compensation ratio	Not yet disclosed	
	102-39	Percentage increase in annual total compensation ratio	Not yet disclosed	
	102-40	List of Stakeholder groups	26, 27, 28, 29, 43, 44, 48, 49	
	102-41	Collective bargaining agreements	55	
	102-42	Identifying and selecting stakeholders	13	
	102-43	Approach to stakeholder engagement	43, 44, 48, 49	
	102-44	Key topics and concerns raised	20	
	102-45	Entities included in the consolidated financial statements	Not yet disclosed	
	102-46	Defining report content and topic Boundaries	14, 15	
	102-47	List of material topics	14, 15	
	102-48	Restatements of information	34	
	102-49	Changes in reporting	Not Applicable	
	102-50	Reporting period	Year of 2020	
	102-51	Date of most recent report	2019	
	102-52	Reporting cycle	Annual	
	102-53	Contact point for questions regarding the report	sustainabilityreport@masdar.ae	
	102-54	Claims of reporting in accordance with the GRI Standards	11	
	102-55	GRI Content Index	60	
	GRI 103: Management approach - Community	103-1	Explanation of the material topic and its Boundary	14, 15
		103-2	The management approach and its components	Annual
		103-3	Evaluation of the management approach	53, 54, 55

GRI Standard	Disclosure Number	Disclosure Name	Page Reference/ Direct Response
GRI 201: Economic Performance	201-1	Direct Economic Value generated and distributed	Not yet disclosed
	201-2	Financial implications and other risks and opportunities due to climate change	5, 36
	201-3	Defined benefit plan obligations and other retirement plans	48
	201-4	Financial assistance received from government	Not Applicable
GRI 202: Market Presence	202-1	Ratios of standard entry level wage by gender compared to local minimum wage	There is no minimum salary stipulated in the UAE Labour Law
	202-2	Proportion of senior management hired from the local community	7
GRI 203: Indirect Economic Impacts	203-1	Infrastructure investments and services supported	18, 28, 29, 34, 35
	203-2	Significant indirect economic impacts	26, 27, 28, 29
GRI 204: Procurement Practices	204-1	Proportion of spending on local suppliers	Not yet disclosed
GRI 205: Anti-corruption	205-1	Operations assessed for risks related to corruption	54, 55
	205-2	Communication and training about anti-corruption policies and procedures	48, 49
	205-3	Confirmed incidents of corruption and actions taken	No cases of corruption-related incidents were detected / observed in 2020
GRI 206: Anti-competitive Behaviour	206-1	Legal actions for anti-competitive behaviour, anti-trust, and monopoly practices	Nothing to report in 2020
GRI 301: Materials	301-1	Materials used by weight or volume	Not Applicable
	301-2	Recycled input materials used	Not Applicable
	301-3	Reclaimed products and their packaging materials	Not Applicable
GRI 302: Energy	302-1	Energy consumption within the organization	34
	302-2	Energy consumption outside of the organization	Not yet disclosed
	302-3	Energy intensity	27
	302-4	Reduction of energy consumption	37
	302-5	Reductions in energy requirements of products and services	Not yet disclosed
GRI 303: Water	303-1	Interactions with water as a shared resource	Not Applicable
	303-2	Management of water discharge-related impacts	Not Applicable
	303-3	Water withdrawal	Not Applicable
	303-4	Water discharge	Not Applicable
	303-5	Water consumption	34

GRI Standard	Disclosure Number	Disclosure Name	Page Reference/ Direct Response
GRI 304: Biodiversity	304-1	Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	All Masdar projects conduct the necessary environmental impact studies and are delivered in line with local environmental regulations in all jurisdictions that Masdar operates in
	304-2	Significant impacts of activities, products, and services on biodiversity	Masdar takes steps to monitor and mitigate impacts to biodiversity in line with local regulations and policies
	304-3	Habitats protected or restored	Not Applicable
	304-4	IUCN Red List species and national conservation list species with habitats in areas affected by operations	Not Applicable
GRI 305: Management approach - Environment	305-1	Direct (Scope 1) GHG emissions	Not yet disclosed
	305-2	Energy indirect (Scope 2) GHG Emissions	34
	305-3	Other indirect (Scope 3) GHG emissions	27, 35
	305-4	GHG emissions intensity	Not yet disclosed
	305-5	Reduction of GHG emissions	Not yet disclosed
	305-6	Emissions of ozone-depleting substances (ODS)	Not Applicable
	305-7	Nitrogen oxides (NOX), sulphur oxides (SOX), and other significant air emissions	Not Applicable
GRI 306: Effluents and Waste	306-1	Water discharge by quality and destination	Not Applicable
	306-2	Waste by type and disposal method	35
	306-3	Significant spills	Not Applicable
	306-4	Transport of hazardous waste	Not Applicable
	306-5	Water bodies affected by water discharges and/or runoff	Not Applicable
GRI 307: Environmental Compliance	307-1	Non-compliance with environmental laws and regulations	54, 55
GRI 308: Supplier Environmental Assessment	308-1	New suppliers that were screened using environmental criteria	Over 200 suppliers were screened using environmental criteria during reporting period
	308-2	Negative environmental impacts in the supply chain and actions taken	No known incidents in 2020
GRI 401: Employment	401-1	New employee hires and employee turnover	11 new employee hires, 15 employee departures
	401-2	Benefits provided to full-time employees that are not provided to temporary or part-time employees	48
	401-3	Parental leave	48
GRI 402: Labour/ Management Relations	402-1	Minimum notice periods regarding operational changes	Per local law

GRI Standard	Disclosure Number	Disclosure Name	Page Reference/ Direct Response
GRI 403: Occupational Health and Safety	403-1	Occupational health and safety management system	Masdar has an approved occupational health and safety policy statement in place communicated to all employees during induction, and displayed across all sites of operation. Masdar is certified for ISO 45001:2018 occupational health and safety management system. All policies and procedures are in line with this certification.
	403-2	Types of injury and rates of injury, occupational diseases, lost days, and absenteeism, and number of work-related fatalities	49
	403-3	Occupational health services	49
	403-4	Worker participation, consultation, and communication on occupational health and safety	Masdar runs an Inspections and audits program that focuses on identification of hazards and risks. We ensure all findings are closed out and complied without compromising on QHSE.
GRI 403: Occupational Health and Safety	403-5	Worker training on occupational health and safety	Masdar provides awareness training e.g. Emergency Preparedness and Evacuation Procedures, COVID-19 Awareness, in addition to digital awareness alerts based on situational needs.
	403-6	Promotion of worker health	48, 49, 55
	403-7	Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	Masdar has designated QHSE Champions, which includes top management representation and employees representation for all departments and divisions of Masdar. Masdar also conducts quarterly meetings where QHSE performance, Management Review, QHSE Key findings, key focus areas etc. are discussed.
	403-8	Workers covered by an occupational health and safety management system	All Masdar employees are covered by an occupational health and safety management system
	403-9	Work-related injuries	No cases of work-related injury occurred during the reporting period
	403-10	Work-related ill health	No cases of work-related ill health occurred during the reporting period
GRI 404: Training and Education	404-1	Average hours of training per year per employee	49
	404-2	Programs for upgrading employee skills and transition assistance programs	48
	404-3	Percentage of employees receiving regular performance and career development reviews	100%
GRI 405: Diversity and Equal Opportunity	405-1	Diversity of governance bodies and employees	49
	405-2	Ratio of basic salary and remuneration of female to men	Masdar has a compensation structure which allows a specific minimum and maximum of pay for each grade, therefore the variance in pay. Additionally, the difference would also be affected by salary negotiation during recruitment phase and progression of staff within the company over a long period of time.
GRI 406: Non-discrimination 2016	406-1	Incidents of discrimination and corrective actions taken	Masdar did not face any legal action or any recorded incident in relation to discrimination within the organisation in 2020.

GRI Standard	Disclosure Number	Disclosure Name	Page Reference/ Direct Response
GRI 407: Freedom of Association and Collective Bargainin	407-1	Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk	No known incidents in 2020
GRI 408: Child Labour	408-1	Operations and suppliers at significant risk for incidents of child labour	54, 55
GRI 409: Forced or Compulsory Labour	409-1	Operations and suppliers at significant risk for incidents of forced and compulsory labor	54, 55
GRI 410: Security Practices	410-1	Security personnel trained in human rights policies or procedures	All Masdar security personnel are trained in human rights policies and procedures, in accordance with Mubadala policies.
GRI 411: Rights of Indigenous Peoples	411-1	Incidents of violations involving rights of indigenous peoples	No known incidents in 2020
GRI 412: Human Rights Assessment	412-1	Operations that have been subject to human rights reviews or impact assessments	No known incidents in 2020
	412-2	Employee training on human rights policies or procedures	Masdar implements a robust company-wide human rights training program, reflecting the specific challenges encountered in the countries and industries in which we operate. These standards are in accordance with Mubadala policy.
	412-3	Significant investment agreements and contracts that include human rights clauses or that underwent human rights screening	Not yet disclosed
GRI 413: Local Communities	413-1	Operations with local community engagement, impact assessments, and development programmes	20, 27, 28, 34, 43, 45
	413-2	Operations with significant actual and potential negative impacts on local communities	No known incidents in 2020
GRI 414: Supplier Social Assessment	414-1	New suppliers that were screened using social criteria	Over 200 suppliers were screened using social criteria during reporting period
	414-2	Negative social impacts in the supply chain and actions taken	No known incidents in 2020
GRI 415: Public Policy	415-1	Political contributions	45
GRI 416: Customer Health and Safety	416-1	Assessment of the health and safety impacts of product and service categories	All Masdar projects conduct the necessary health and safety assessments and are delivered in line with local health and safety regulations in all jurisdictions that Masdar operates in
	416-2	Incidents of non-compliance concerning the health and safety impacts of products and services	No known incidents in 2020
GRI 417: Marketing and Labelling	417-1	Requirements for product and service information and labelling	Not Applicable
	417-2	Incidents of non-compliance concerning product and service information and labelling	No known incidents in 2020
	417-3	Incidents of non-compliance concerning marketing communications	No known incidents in 2020
GRI 418: Customer Privacy	418-1	Substantiated complaints concerning breaches of customer privacy and losses of customer data	No complaints received regarding this matter in 2020
GRI 419: Socioeconomic Compliance	419-1	Non-compliance with laws and regulations in the social and economic area	Masdar did not suffer any legal action or fine for non-compliance with social and economic laws or regulations in 2020



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