

ANNUAL SUSTAINABILITY REPORT | 2022





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DECLARATION

This Annual Sustainability Report covers the period from **1 January to 31 December 2022**. It reflects the sustainability performance and governance structure that was in place for the majority of the year at Masdar, during which Mubadala Investment Company (Mubadala) was the sole shareholder.

On 8 December 2022, Abu Dhabi National Energy Company (TAQA) and Abu Dhabi National Oil Company (ADNOC) joined Mubadala as Masdar's shareholders. Sustainability reporting under the updated shareholder and governance structure will begin for the full year of 2023.

This report also incorporates the sustainability performance of Masdar City in 2022, which operated as part of Masdar under Mubadala for most of the year. Under the new ownership structure, Masdar City will remain solely under Mubadala and will report separately on its sustainability performance for 2023.



INTRODUCTION AND OVERVIEW

STATEMENT FROM OUR CHAIRMAN

I am delighted to present and mark the tenth edition of Masdar's Sustainability Report, a groundbreaking publication that was originally conceived when sustainability had yet to take center stage in boardroom discussions. Our 2022 report shows just what a hugely productive and impactful year it has been, not just for Masdar in our ESG and sustainability ambitions, but also for the UAE itself.

This is a pivotal time in the energy transition, and what will be a monumental year for the UAE and the world. Building on the legacy of our Founding Father, Sheikh Zayed bin Sultan Al Nahyan, the UAE will reach a true milestone in its sustainability journey in 2023, as it prepares to host COP28. This will be a truly historic moment where the world will come together for the first ever Global Stocktake to assess progress made towards the Paris Agreement goal of limiting global warming to 1.5°C.

However, by any metric, the world is way off track from achieving this goal and needs a major course correction. It will require hard decisions and concerted, collective action by governments and businesses worldwide to cut emissions by the 43% needed by 2030 to keep 1.5 alive and guarantee the future for generations to come. In its latest report, the IPCC highlighted the challenges that lie ahead but also identified the opportunities and solutions to reduce emissions and boost resilience. One key opportunity here is to increase the pace of adoption of renewable and zero-carbon energies and to step up efforts to decarbonize the global energy system.

The past year has been a defining one for Masdar, with the forging of a new partnership with ADNOC and TAQA, alongside our original shareholder Mubadala, to create a truly global clean energy powerhouse. In the past 17 years, Masdar became one of the world's largest renewable energy investors and drivers of the energy transition, and this partnership



HE Dr Sultan Ahmed Al Jaber
Chairman

will propel us to even greater heights. With our new investors, we are targeting 100 GW of renewable energy capacity globally by 2030 and to more than double that in future years.

Our new momentum will also see us accelerate global growth, expand our renewable energy footprint, and play a central role in delivering the UAE's Net Zero by 2050 strategic initiative. With renewables accounting for almost 90 per cent of all new generating capacity globally last year, the opportunity is clear. We need to triple this growth by the end of the decade, and Masdar will help to do that.

In 2022, we recorded many significant achievements, including signing an agreement with TANESCO, Tanzania's electricity provider, to develop renewable energy projects with a capacity of 2 GW in the nation. We also marked the financial close of the 500 MW Zarafshan Windfarm in Uzbekistan, set to be the largest of its kind in Central Asia.

With our partners, our sights are firmly set on being a leading player in exploring the commercial production of green hydrogen, a strong contender to be the fuel of the future. We are planning to grow our green hydrogen capacity to 1 million tonnes by the end of this decade, and as a major step toward this goal, we are working with organizations in Egypt to develop green hydrogen projects with an electrolyzer capacity of 4 GW by 2030. Masdar also signed agreements with the Government of Azerbaijan to develop integrated offshore wind and green hydrogen projects with a capacity of 2,000 MW – part of a larger program of clean energy projects in the country that could reach as much as 10,000 MW.

As we build on our progress in the renewables sector, accelerate the delivery of more global-scale projects, and help meet the planet's urgent demand for clean energy, I would like to express my sincere appreciation to our partners and key stakeholders from all over the globe. They have continued supporting our shared sustainability priorities, enabling us to achieve great things. Together we are stronger, and together we will continue to change the world for the better.



MESSAGE FROM OUR CHIEF EXECUTIVE OFFICER

I am proud to present Masdar's 2022 Sustainability Report, a landmark tenth edition of our annual report which catalogues our achievements and highlights our progress towards our own sustainability goals.

Since Masdar was first established by the UAE leadership in 2006 as a renewable energy pioneer, we have been on a path of unprecedented growth that has accelerated the deployment of clean energy at home and around the world. Today, Masdar has grown to become a global clean energy powerhouse, active in over 40 countries across five continents. Our portfolio now encompasses over 20 GW of clean energy capacity, representing an overall investment commitment of combined projected value of more than US\$30 billion.

2022 was a pivotal year in this legacy of growth. We officially welcomed ADNOC and TAQA as Masdar's shareholders alongside Mubadala, setting out on an ambitious course to grow our clean energy capacity to 100 GW and 1 million tonnes per year of green hydrogen production by 2030. In doing so, we also continued to build on Masdar's strong foundations for achieving these milestones, which are some of the most ambitious clean energy targets in the world.

As a clean energy pioneer, Masdar's ambitions are built upon its commitment to sustainability and upholding the highest ESG standards. In every project we undertake in the UAE and around the world, ESG is woven into everything we do as we strive towards reaching net-zero goals on a global scale. Ultimately, central to our mission is to ensure we have a positive impact on the environment and support all communities in reducing their carbon footprint.

To ensure we are minimizing any impacts, we conduct Environmental and Social Impact Assessments (ESIA) following the



Mohamed Jameel Al Ramahi
Chief Executive Officer

highest international standards for all our projects. For example, this process may include analyzing and predicting impacts upon intricate details such as bird migratory habits and wildlife habitats, to considering the sustainable procurement and governance practices of all our partners.

In 2022, we continued to make strong progress towards a sustainable future as we deployed world-leading clean energy projects and innovative new technologies across several key strategic markets. For example, in Azerbaijan, we broke ground and achieved financial close on the 230 MW Garadagh solar PV plant, the country's first foreign investment-based independent solar power project.

We also completed targeted acquisitions, including the purchase of Arlington Energy, a leading UK-based battery energy storage developer. In addition to establishing a foothold for Masdar in the critical energy storage market, this move will support our growth strategy as we continue to expand our presence in the UK and Europe. And across Africa, we signed several agreements to develop clean energy projects and expand energy access to those who need it most, including in Tanzania.

Closer to home, we inaugurated the Sharjah Waste to Energy Project in the UAE, the first commercial scale waste to energy facility in the Middle East, as well as the Baynouna wind farm, the largest clean energy project in Jordan.

These are just some of the many achievements Masdar has enjoyed in 2022, and we will continue to build upon these over the next year and beyond. As we look ahead to COP28, proudly being hosted in the UAE in 2023, Masdar and the UAE will continue to play significant roles in driving the sustainability agenda and energy transition forward.

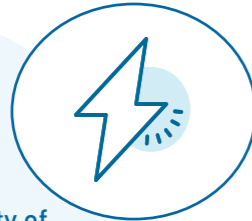
Throughout our history, Masdar has proven to be a pioneering force for sustainable change. With a uniquely talented team and a strong network of partners behind us, the future promises to be even brighter for Masdar, the UAE, and the world.

MASDAR KEY HIGHLIGHTS 2022

CAPACITY

20 GW

Total production capacity of Masdar projects worldwide - in operation / under construction / secured



GENERATION

57,000 GWh

Indicative generation from clean sources - projects in operation / under construction / secured



of which →

18,000 GWh

Generation from clean sources - operational assets owned or signed in 2022

CO2

30M tonnes

CO2 / carbon abated by assets that are operational / under construction / secured by Masdar in 2022



of which →

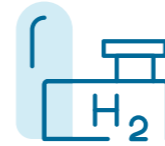
10M tonnes

CO2 / carbon abated by operational assets that Masdar owned or signed to acquire in 2022



100 GW

Global renewable energy target by 2030



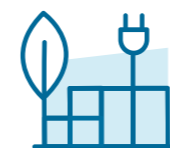
1M tonnes

Target production of green hydrogen by 2030



In over 40 countries

Broad international presence through global projects in which Masdar has invested more than US\$30 billion to date



First large-scale net-zero energy office building

To be built in Abu Dhabi for the MC2 headquarters, which will use no more energy than it produces



400,000+

Social media followers across Masdar's strategic platforms



OUR YEAR IN REVIEW

In 2022, Masdar made significant strides towards supporting the UAE's goal of achieving net-zero emissions by 2050 and advancing the global energy transition. The company signed new partnerships, agreements, and delivered projects, both in the UAE and across the world. With operations in over 40 countries and a focus on renewable energy, clean technologies, and sustainable development, Masdar continues to be a leader in the energy sector.

With a combined value of over US\$30 billion across its portfolio of worldwide projects, Masdar has set the ambitious goal of reaching 100 GW of renewable energy capacity by 2030. While the focus is on wind and solar technologies, Masdar is also exploring green hydrogen production, aiming to reach an annual capacity of 1 million tonnes by 2030, which would save over 6 million tonnes of CO2 emissions.

THE NEW MASDAR

On 8 December 2022, Mubadala signed a strategic agreement with TAQA and ADNOC, with the three companies joining forces as Masdar shareholders. This marked the start of a new chapter for Masdar, bolstering its position as a global energy powerhouse in renewable power, green hydrogen, and clean energy technologies.

The partnership between the companies is essential to advance the UAE's energy diversification and climate action agenda, achieve the required scale in clean energy capacity, and attain carbon neutrality by the middle of the century.

STRENGTHENING IMPORTANT PARTNERSHIPS

The year saw strategic partnerships strengthened regionally and globally, world-class clean energy projects delivered, and significant agreements signed in new and existing markets, including Uzbekistan, Azerbaijan, Egypt, Jordan, Kyrgyzstan, Turkmenistan and Tanzania.

We achieved financial close on the 500 MW Zarafshan wind farm in Uzbekistan, set to be the largest wind project in Central Asia. In

Azerbaijan, we achieved financial close on the 230 MW Garadagh solar photovoltaic (PV) plant, the country's first foreign investment-based independent solar power project.

We agreed to develop a 10 GW onshore program in Egypt – one of the largest in the world, set to produce 47,790 GWh of clean energy annually and offset 23.8 million tonnes of carbon emissions.

We explored the development of 2 GW of additional clean energy capacity in Jordan, agreed to develop a 100 MW solar PV plant in Turkmenistan – marking our first ever project in the country – and signed a Memorandum of Understanding with Kyrgyzstan to explore renewable energy opportunities.

Targeted acquisitions were completed, including the purchase of Arlington Energy, a leading UK-based battery energy storage developer. In addition to establishing a foothold for Masdar in the critical energy storage market, this move supported the growth strategy to continue to expand our presence in the UK and Europe.

We are increasingly targeting offshore wind projects, with significant investments across the UK, including a 25% stake in Hywind Scotland, the world's first floating offshore wind farm.



East. It is set to power up to 70,000 Saudi households per year and save approximately one million tonnes of CO2 annually.

We inaugurated the Sharjah Waste to Energy plant with BEEAH, the first commercial scale waste to energy project in the Middle East. Work continued on the Al Dhafra Solar Photovoltaic (PV) independent power producer, set to be the world's largest single-site solar power plant. Located close to Abu Dhabi, it will use 4 million solar panels to generate enough electricity for 160,000 homes across the UAE, mitigating 2.4 million tonnes of carbon dioxide annually.

OUR INSPIRING PLATFORMS

We saw our strategic platforms come together for important events and discussions throughout the year.

Abu Dhabi Sustainability Week (ADSW) – our global initiative for propelling sustainable development – was a resounding success in 2022. The event brought together industry leaders to address some of the world's most pressing sustainability issues and attracted thousands of attendees and hundreds of participating companies.

Our Women in Sustainability, Environment and Renewable Energy (WiSER) initiative, which empowers women aged 25 to 35 to lead sustainable change, held a series of high-level discussions to raise global awareness and support for women as powerful catalysts of sustainable change, with 23 graduates successfully completing our Pioneers Program this year.

In the workplace, we have continued to strive for an environment that promotes a healthy work-life balance and parent-friendly policies, an effort which resulted in being awarded the Parent-Friendly Label by the Abu Dhabi Early Childhood Authority, recognizing Masdar as one of the best places to work.

PIONEERING NET-ZERO IN MASDAR CITY

Masdar City, our flagship low-carbon urban development project, made a mark with the ground-breaking ceremony of its latest development – Masdar City Square (MC2). Set to be completed in 2024, MC2 covers a gross floor area of 50,000 square meters, extending Masdar City's commitment to net zero, sustainability and technology. The headquarters in the development will be the first large-scale net-zero energy office building in Abu Dhabi, meaning it will use no more energy than it produces.

The Global Carbon Capture and Storage (CCS) Institute confirmed its first Middle East headquarters in Masdar City. The international think tank works to scale-up carbon capture and storage technology to support the drive to climate neutrality. It will work alongside industry and public sector partners to build CCS ambitions in the region in the years to come.

Masdar City also signed a Memorandum of Understanding to advance carbon reduction in the Middle East with Zero Carbon Ventures. Already underway, the first project to be explored will involve deploying Zero Carbon Venture's game-changing graphene technologies to lower the need for maintenance and reduce the energy consumption of key buildings in Masdar City.



LOOKING FORWARD TO COP28

Toward the end of 2023, the United Arab Emirates will have the honor of hosting the 28th session of the Conference of the Parties to the United Nations Framework Convention on Climate Change – better known as COP28. The Emirates COP will be particularly significant, as it marks the conclusion of the first Global Stocktake on the Paris Agreement to help align efforts on global climate action.

It is a pinnacle moment for the UAE – and for Masdar, which has been a key driver of the country's efforts to develop renewable and clean energy resources as we transition into a new energy era. As COP28 President-Designate, Masdar's Chairman HE Dr Sultan Ahmad Al Jaber will be playing a pivotal role in showcasing the UAE's commitment to sustainability and building impactful global alliances in a critical year for the climate conversation. Speaking at ADSW 2023, Dr Al Jaber said "we are determined to make COP28 a COP for all, a COP of action" and stressed that by working collectively together "we can turn the greatest challenge we face into the opportunity of our lifetime."

Established in 2006, Masdar is today recognized as one of the world's fastest-growing clean energy companies. Now active in more than 40 countries across six continents, Masdar is developing and investing in worldwide projects with a combined value of over US\$30 billion, and Masdar City, the UAE's flagship low-carbon urban development project, is a shining example of how it is possible to live and work sustainably.

COP28 presents an opportunity to showcase the ambitious solutions and technologies Masdar, as the UAE's clean energy pioneer and sustainability trailblazer, has been developing to tackle global energy

challenges. Masdar continues to target growth opportunities around the world, including in the US, MENA, CIS, APAC and key European countries, as well as playing a central role in providing the clean energy needed for the UAE to achieve its own net-zero ambitions.

In the run-up to COP28, the new partnership of TAQA and ADNOC, with our founding shareholder Mubadala, will see them combine forces under a refreshed Masdar brand to create a global powerhouse in clean energy.

It is certainly going to be one of the most exciting and important years for the sustainability agenda and clean energy in the UAE. We can look to the years and decades ahead with optimism, as Masdar leverages its know-how and track record in renewables to drive cooperation and deliver a broader global impact in addressing the challenges of the energy transition. At COP28, we will share practical and innovative solutions that will help nations around the world ensure their energy security, while reducing emissions as we all accelerate toward a net-zero future.





VISION, MISSION AND VALUES

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 MISSION

To help maintain the UAE's leadership in the global energy sector, while supporting the diversification of both its economy and energy sources for the benefit of future generations.

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.

A GLOBAL AMBITION FOR A SUSTAINABLE AND CLEAN FUTURE



Dr Nikolas Meitanis
Executive Director, Strategy
& Corporate Development

At Masdar, we have an ambitious vision – to be the global clean energy leader. Having laid the foundations back in 2006, we have spent the past 17 years constantly evolving, pioneering new markets, leveraging novel technologies, and pushing the boundaries for decarbonization.

2022 was a pivotal moment in Masdar's

history, with UAE energy champions ADNOC and TAQA joining Mubadala as shareholders of Masdar, marking what we believe will be an inflection point in terms of the pace and growth for Masdar. The support of three major shareholders allows Masdar to not only access capital, but also gives it the ability to extract synergy across Abu Dhabi's clean energy ambitions.

The clean energy market remains on an upwards curve and is only expected to strengthen given increased public awareness, government support schemes, green financing flows and technology maturity. In 2022, we saw for the first time, more than US\$1 trillion invested in energy transition projects, with almost half of that coming from the deployment of new renewables capacity. We also saw significant capital – close to US\$80 billion – invested in expanding current manufacturing and supply chain capacities to support this deployment.

Across industries, we see a trend towards electrification – of transport, heating, heavy industry – powered by clean and renewable energy. Corporations, from logistics companies to data center operators, and from consumer goods to oil and gas, are increasingly turning to clean energy companies like Masdar to help them decarbonize. For us at Masdar, this presents a massive opportunity.

These are the considerations that underpin our strategy and action plans. As such, our strategic priorities in the upcoming year are three-fold. First, we must gear up to accelerate the pace of growth while maximizing shareholder value and mitigating

risk. The organization needs to cater to these requirements to ensure we make good investments. Second, we must ensure we have the right capabilities to deliver. We operate in dynamic markets where competition for talent is intense. We need the expertise – across engineering, technology, project management and commercial functions – both in our Head Office in the UAE, but also selectively in the countries where we operate. In addition, we will expand our capacity to pursue projects with best-in-class ESG characteristics, ensuring conservation of the environment, respect for the local community and compliance with governance best practices. And third, we need to seek new opportunities, with existing partners or new ones, pursuing investment models that deliver growth at the right value and have risk characteristics aligned with our investment mandate.

Our primary focus remains on onshore wind, offshore wind and solar power – in particular, photovoltaics (PV) but also Concentrated Solar Power. We will also continue to invest in waste-to-energy, hydroelectric and geothermal power. Naturally, we are also closely monitoring and actively developing projects in green hydrogen, which is an important element in decarbonization, particularly in heavy industry and transportation.

Looking to 2023, in many ways, we view COP28 as the culmination of the past 17 years of Masdar's journey. It is an opportunity to showcase our achievements, support our principles and demonstrate the nation's role as a responsible global player, driving forward the sustainability and clean energy agenda.

Strategically, hosting COP28 in the UAE provides an opportunity to engage with partners and governments from all around the world to secure new partnerships, expand in new geographies and achieve our global ambition for a sustainable and clean future. Echoing public statements from our

shareholders and our Chairman, COP28 President-Delegate H.E. Dr. Sultan Al Jaber, we invite everyone to collaborate with us. Masdar is ready to engage as energy transitions for the future.



OUR APPROACH TO ENVIRONMENTAL, SOCIAL AND GOVERNANCE (ESG)

At Masdar, our approach to ESG is visible throughout all the work we do as leaders in our field. Whether developing utility-scale renewable energy projects around the world, advancing innovation in clean technologies or being first-movers in green hydrogen, our commitment to sustainability and making a positive impact on the environment and the communities in which we operate shines through. It is also highlighted in the way we deliver knowledge and industry platforms to stimulate further growth in the wider renewable energy and clean-tech industry, creating new long-term revenue streams for the UAE.

ENVIRONMENTAL

Masdar was the region's first large-scale sustainability and renewable energy initiative. Since our inception, we have spent the past 17 years pioneering world-class clean energy projects that support the global energy transition and net-zero objectives, and promote environmentally friendly approaches across real estate, construction, and urban development. Masdar City itself is one of the world's most sustainable urban communities – a low-carbon development that is pioneering the UAE's ambitions to achieve net-zero by 2050.

SOCIAL

On the social pillar of ESG, we engage with the communities wherever we operate through important strategic platforms, and our interactions with employees, suppliers, customers, and other stakeholders reflect our commitment to collaboration, partnership and creating shared value. We uphold the highest standards in health, safety and environment (HSE) practices and performance, and support a diverse and inclusive workforce, while being committed to initiating and supporting community-driven projects.

GOVERNANCE

We take a robust governance approach, which is managed through our internal audit procedures and standards, our strong ethics and compliance program and our responsible sourcing policies. We are committed to ensuring appropriate focus and oversight of ESG practices at Masdar and across our worldwide portfolio of projects, and we continually act to improve our governance structure and processes.



OUR ESG POLICIES

Masdar acts on its sustainability vision and mission by implementing key policies that prioritize positive environmental impact and embed sustainable practices at the core of the business. These policies include:

- Corporate Quality, Health, Safety and Environment (QHSE) and Occupational Safety and Health (OSH) management systems, which reference achieving no damage to the environment and no risk for stakeholders
- Initiatives through our Occupational Health and Safety Committee, and Social Activities and Inclusion Committee
- Operational sustainability-related KPIs, including on wellness and QHSE training
- Training and education initiatives
- Risk management procedures and a regularly revised risk & opportunities register, where risks and controls are highlighted
- A non-discrimination commitment, with zero-tolerance towards discrimination, violence, abuse and sexual harassment, as well as an equal pay policy
- A sustainable procurement policy, which is followed by the procurement committees, tender committee and bid opening committee
- A human capital policy to ensure employees are trained in the right policies and procedures
- Anti-bribery and anti-corruption standards that are applicable to all
- Embedded digital management solutions that enhance data collection and reporting
- Targets on Emiratization and employing women

- Mandatory environmental impact assessments for all clean energy projects
- Requirements for all suppliers to disclose information on their sustainability performance.



Masdar continues to undertake global best reporting and communication practices, publishing this Annual Sustainability Report, which is aligned to Global Reporting Initiative (GRI) standards to inform stakeholders and highlight performance in this area. The company is committed to disclosing sustainability data to keep all relevant parties updated.

Across Masdar, we will continue to pursue and embed our sustainability vision and policies in the year ahead to drive change and positive impact.

CREDIT RATINGS

In September 2021, Moody's Investor Services and Fitch Ratings assigned Masdar long-term credit ratings of A2 and A+ respectively, with a stable outlook. These ratings have remained the same following the change in shareholder structure on 8 December 2022.

In addition, Moody's assess Masdar as having a Credit Impact Score (CIS) of 1, indicating that our ESG attributes have a positive rating impact. Only one other unregulated utility out of 217 assessed have a CIS of 1, less than 1% of Moody's global portfolio.

The credit ratings were issued following extensive due diligence and serve to highlight Masdar's role as a major player in the region and worldwide. Both credit rating agencies recognize Masdar's diversified and robust, global clean energy portfolio, which supports diversification of both the UAE's economy and energy sources for the benefit of future generations. The ratings also enable new investments to be financed more flexibly as Masdar accelerates the growth of clean energy globally, and supports others in the energy transition.





PROJECT IN FOCUS

BRINGING WIND FARMS TO SCALE IN SAUDI ARABIA

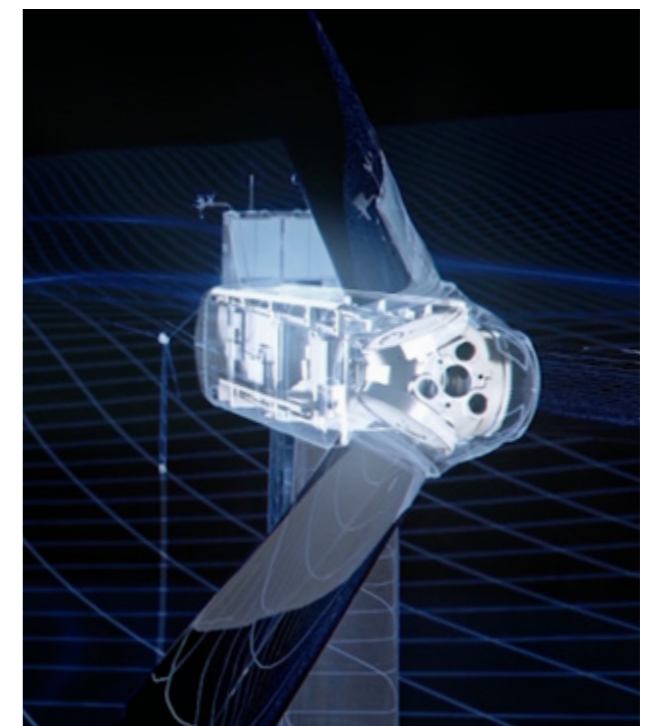
In July 2022, Masdar celebrated completion of the Dumat Al Jandal wind farm in Saudi Arabia, which was delivered as part of a consortium with EDF Renewables and Nesma first announced back in 2019.

Located near the city of Dumat Al Jandal in the Al Jouf region of Saudi Arabia, the project is not just the Kingdom's first wind farm, but also the largest in the Middle East.

With an installed capacity of over 400 MW, it comprises 99 wind turbines, each with a power output of 4.2 MW. Installation of the first turbines began on the site in August 2020 and the project was connected to the power grid in July 2021, when it began producing its first carbon-free MW-hours of energy.

From an ESG perspective, the US\$440 million wind farm is already having a notable positive impact on the environment and local community. It is generating clean energy that can power up to 70,000 Saudi homes every year, saving around 1 million tonnes of CO2 annually.

Dumat Al Jandal demonstrates the enormous potential for renewable energy projects of this scale in the country – and wider region – and reinforces Masdar's reputation as a global clean energy powerhouse. The lessons learned in this project will pave the way in supporting other projects with even greater capacities which are in the pipeline.





SUSTAINABLE FINANCE AND INNOVATION

SETTING THE STANDARD IN SUSTAINABLE FINANCE



Niall Hannigan
Chief Financial Officer

At Masdar, we constantly look to drive the sustainable finance conversation around the world. As a leader and pioneer in this field, we are actively challenging businesses, institutions and individuals to come up with new and innovative ways to finance renewable energy projects, particularly in emerging markets and developing economies.

Sustainable financing is more in demand than ever. Through our work we are creating opportunities for financial institutions to become part of the green financing agenda and to really put sustainable investments at the core of everything they do.

Examples of this from Masdar's perspective include raising project financing at an asset level; the debt facility raised for the Masdar Green REIT; and corporate financing facilities such as our Green Revolving Credit Facility (RCF), the first in the Middle East when established and which is based on the Green Loan Principles of the UK's Loan Market Association. It is very important for Masdar that we continue to evolve our financing strategy to enable the adoption of new green financing instruments across all our operations.

This is of course a global conversation, and that is why we have developed a Green Finance Framework which will guide all future financing activities, including our future plans to become an issuer of Green Bonds in the debt capital markets and highlight Masdar's significant contribution to sustainability and our alignment with best financial industry practices.

Every dollar of debt capital we raise will be deployed into developing green projects across the globe to the highest ESG standards, and a substantial proportion of that deployment will be in developing countries.

Through our annual reporting, which will be independently audited, Masdar will demonstrate how we meet the highest standards of transparency, disclosure and integrity in order to allow banks and investors the opportunity to confidently participate in our contribution towards the world's net-zero ambitions.

One highlight of 2022 for Masdar was closing the US\$250 million financing for the Zarafshan wind farm project in Uzbekistan. At 500 MW, Zarafshan is the largest wind

farm in Central Asia and will power half a million homes while displacing over 1 million tonnes of CO2 every year. It will play a critical role in achieving Uzbekistan's ambitious clean energy targets of generating 25% of its electricity mix from renewables by 2030. We were able to arrange a financing solution involving not only the international development banks, but also encompassing Etihad Credit Insurance, First Abu Dhabi Bank and Natixis providing credit-insured lending to the project. Their participation is a first for such projects in the region and opens a new pool of liquidity for new renewable projects, and we hope to see it applied further around the world.

Other highlights include successfully refinancing the 158 MW Tesla Wind project in Serbia with local and international commercial banks, and also achieving financial close on the 230 MW Garadagh Solar Photovoltaic (PV) Plant in Azerbaijan. Our mission is to promote the advancement of renewable energy, to get projects and programmes off the ground, and to accelerate progress of the sector. We are proud to be taking these ambitions forward in Africa, Central Asia and many other geographies.

While we recognize that global market uncertainty and higher interest rates are a concern for companies around the world, through mechanisms such as pre-hedging, we are confident that we will be able to mitigate risks and be well-prepared for the future.

Not only are we active in more than 40 countries across the world, but we have also invested in a portfolio of renewable energy assets with a combined projected value of more than US\$30 billion and with a projected total capacity of more than 20 GW. Our new global partnership forged with ADNOC and TAQA, alongside our current shareholder Mubadala, offers exciting growth opportunities ahead.

This year, we also look forward to COP28, a momentous event for the UAE and Masdar.

Never has there been a more exciting time, with our position only getting stronger in the conversation around how we finance renewable energy, clean technology and sustainability, in the UAE and globally.



FOSTERING GREEN FINANCE

Encouraging and advancing green finance is a priority for Masdar. We recently developed a Green Finance Framework (GFF) to provide investors and stakeholders with information regarding our commitment to allocate the proceeds of green bonds, loans and other financial instruments in a manner consistent with the highest ESG standards. Below we answer some of the main questions related to the GFF.

What is Masdar's Green Finance Framework?

We have developed a GFF to guide future financing activities across Masdar. Similar to frameworks published by other companies, the GFF is a standalone document that summarizes the methodology we apply to classify any financial instrument that we raise, such as a loan, bond or sukuk, as green.

We are committed to meeting the highest ESG standards across all our projects. As such, the GFF specifies the project eligibility criteria, our commitment to applicable environmental and social due diligence requirements, and the process for managing and reporting on the allocation of financial instruments.

Importantly, the GFF also shows our dedication to transparency by committing to independently audited reporting on the environmental benefits generated by projects funded by the instruments we issue.

Why has Masdar decided to publish a Green Finance Framework?

Masdar recognizes the critical role it plays in supporting the UAE's transition to a diversified and sustainable economy and accelerating progress towards the nation's Net Zero by 2050 strategic initiative.

As one of the fastest growing and most recognizable renewable energy companies

in the world, we understand the need to demonstrate to the financing community that the GFF is there to guide our capital-raising activities and that it meets the highest standards. We must show the proceeds of financial instruments are closely tracked and that the environmental benefits of the projects they help finance are accurately measured.

The GFF provides a methodology to demonstrate this clearly and concisely to the financial community, helping banks and capital markets investors feel confident in where their investments are being allocated and the impact they are having.



What is unique about Masdar's Green Finance Framework?

We have chosen to establish a very simple "use of proceeds" framework which restricts deployment to only the "darkest green" sectors within the renewables industry, namely solar power, wind power, dedicated renewable power transmission and distribution infrastructure, and battery storage assets.

Furthermore, our GFF has been drafted to be transparent, and to follow the best disclosure and integrity standards so as to attract maximum appetite from other sustainable players in the market, irrespective of the type of instrument we are issuing.

Lastly, the GFF is dynamic in nature, and Masdar is committed to continuous review to ensure the framework always aligns with international best practices.

What does this mean for any financing instruments issued in connection with Masdar's Green Finance Framework?

While a number of our projects to date have been financed through a mixture of non-recourse debt and equity, the GFF is intended to be used in connection with green loans, bonds and sukuk at the corporate level to fund our equity commitments on new projects. If we raise loans, the International Capital Market Association (ICMA) Green Loan Principles apply. Similarly, if we issue bonds then the Green Bond Principles will govern the use of proceeds, in accordance with our framework.

It is crucial for global renewable champions like Masdar to show leadership on many fronts, including our financing activities. We believe our inaugural GFF and the reporting that comes with it will exceed the expectations of the financial community, which in turn will help boost our participation in global collective action towards carbon neutrality.



PIONEERING NET-ZERO



Ahmed Baghoum
Executive Director,
Masdar City

Since its inception in 2006, Masdar City's mandate has been to advance sustainability on a regional and global level. Now, 17 years on, I am proud to say that Masdar City is testament to the fact that low-carbon living is possible.

We have built a city that is highly sustainable, consuming at least 40% less water and energy than traditional developments. Of course, being a pioneer in this space has presented challenges, but through education and awareness building, we are breaking down the stereotypes about sustainable

cities — particularly those related to the cost and difficulty of sustainable construction. We have actively demonstrated that sustainable construction is both achievable and economically viable.

We announced and broke ground on several new developments in 2022: Masdar City Square (MC²), which will have a gross floor area of 50,000 m², affirms Masdar City's commitment to net-zero energy, sustainability, technology, and well-being by nurturing an expanded community of businesses operating in harmony with the environment. MC² will include seven single and multi-tenant office buildings built to LEED Platinum standards, which are the international standard for green construction.

The crown jewel in this project will be the MC² headquarters building. It will be Abu Dhabi's first net-zero energy HQ, meaning it will use no more energy than it produces by integrating energy-efficient design and systems with renewable energy technologies. The MC² HQ building will be immediately identifiable by its innovative solar photovoltaic panel canopy. Work is scheduled for completion in 2024.

Another project I am excited about is The Link, comprising five buildings, including the first net-zero energy shared living and working space under one roof in the region. With a gross floor area of 30,000 m², it will offer a more sustainable and community-focused way of living and working. We hope that this project, set for completion in 2024, will help attract even more small and medium enterprises and entrepreneurs to Masdar City.

The net-zero agenda in the United Arab Emirates began with Masdar City, and we will continue to drive this agenda and advance sustainability in the region and worldwide.

This will be an even more pressing responsibility in 2023 as we celebrate the Year of Sustainability, and as we look to

showcase our achievements and successes to the world at COP28.



PROJECT IN FOCUS

POWERING THE SOLAR FUTURE IN AZERBAIJAN

Masdar is developing the 230 MW Garadagh Solar PV Plant in Azerbaijan, the nation's first independent solar power project by a foreign investor.

The Garadagh project, located 9 km northwest of the Alat settlement, is being developed, financed, constructed, and operated by Masdar. Set to begin commercial operations in 2023, it was Masdar's first foray in the country and is a crucial step in helping Azerbaijan diversify its energy mix and drive energy security in the country.

The plant is set to generate half a billion KW-hours of electricity annually, enough to meet the needs of more than 110,000 homes, while cutting carbon emissions by more than 200,000 tonnes a year and creating valuable jobs for the local community. This positive impact is a reflection of how Masdar places ESG and sustainability at the heart of everything it does.

Masdar conducted a detailed ESIA process following the best international standards, with baseline surveys, stakeholder engagements, impact analysis and monitoring measures undertaken.

Co-financed by the Abu Dhabi Fund for Development, the Asian Development Bank, the European Bank for Reconstruction and Development and Japan International Cooperation Agency, the project achieved financial close in August 2022.

With the project now under construction, an Environmental and Social Management System was implemented to mitigate impacts.

Azerbaijan has set a target to increase installed power capacity from renewable sources to 30% by 2030 as it looks to expand its economy and reduce greenhouse gas emissions.

Masdar's commitment to Azerbaijan's clean energy targets has accelerated, with joint development agreements signed for onshore wind and solar projects and integrated offshore wind and green hydrogen projects. These will have an initial total combined capacity of 4 GW with the right to develop an additional 6 GW in the second phases – one of the largest such signings in Azerbaijan's history.



A MESSAGE FROM OUR PARTNER

ESG IS NOT JUST A LABEL, BUT A COMMITMENT TO ADD VALUE



Ashish Koshy
Chief Executive Officer,
G42 Healthcare

As the UAE continues to pivot towards a knowledge-based economy, a keen focus on sustainability remains a national priority. G42 Healthcare, an integral part of G42, champions AI to develop and deploy solutions that are sustainable, while helping to create and empower greener societies.

We believe that sustainability in healthcare improves operational efficiency, enhance patient care and reduce environmental impact, whether via green hospitals or by digitally enabled ecosystems.

We are working with DoH to reduce the burden of diseases, leveraging Malaffi, the region's first Health Information Exchange and Shafafiya platforms, to collect, process, and analyse healthcare and patient data. We believe in a patient-first approach to provide insights-driven and value-based care, thereby creating a framework that is more sustainable and replicable in the UAE.

While digital health interventions increase the collection and storage of large amounts health data (accounting for around 30% of the world's total data), the environmental impacts of data centres can be reduced by green cloud computing and the use of environmentally conscious computational technologies, something that our team is striving to adopt as a best practice.

At G42 Healthcare, we have developed UDM, a unified data model that combines a plethora of heterogeneous data sources, including electronic health records, claims, survey responses, registries, capacity planning etc. thereby creating a single point of access that centralizes all the data to be made available for CRMs, BI analytical tools; E-prescription platform, an electronic platform where all doctors submit prescriptions for their patients and pharmacists use this platform to extract a patients prescription before dispensing and created data bank for disease registry, a unique database that contains information about people diagnosed with a specific type of disease that can fuel real time queries by payers, providers and pharma.

We have also seen that telehealth can play a vital role in reducing travel-associated carbon emissions and over time lead the transition to a net carbon-zero healthcare system.

We are also delivering key capabilities for the government in Abu Dhabi, which is scalable across the world. These include the setup of a globally leading wastewater and environmental analytics facility, a novel environmental pollution surveillance network as well as managing the entire operations of Abu Dhabi's Central Testing Laboratory.

The Wastewater Monitoring Lab will provide an early warning for potential contaminants and threats to public health and the environment. It will allow us to detect other pathogens, harmful chemicals, creating a solid foundation for decisions and programmes to be developed to combat any emerging threat.

Our partnership with Masdar City provides a dynamic ecosystem of education, R&D, innovation, and technology. Aimed at spearheading innovations to realise greener, more sustainable urban living, this has been a true demonstration of sustainable urban development.

Not only G42 Healthcare, but the Group and its strategic businesses are aligned to support the UAE in eliminating its planet-warming emissions by 2050.

For example, the main environmental impact of cloud computing is the sheer amount of electricity that is required to not only power servers, but also keep them cool. G42's Khazna Data Centres are fitted with solar panels and efficient cooling systems that use treated sewage and recycled water – reflective of the Future First Strategy, which aims to achieve carbon-neutrality operations across all its sites by 2050.

Similarly, Bayanat, the AI-powered predictive geospatial intelligence, has developed a stratospheric flight aircraft that provides significant opportunities in climate analysis and environmental monitoring of energy, food, forests, water, cities, oceans, animals and more.

G42 is also the proud owner of Artemis, a supercomputer currently ranked 22nd globally on the Green500, a list of the most energy and environmentally friendly supercomputers in the world.

Such initiatives and robust partnerships will help us widen our ESG focus to create a fair, diverse, inclusive, and engaging community in line with our mission to invent a better healthcare every day.



THE CATALYST

The Catalyst is a partnership between Masdar City and bp and is the region’s first venture investor in sustainable technologies. It invests in early-stage start-ups in clean tech, climate tech and renewable energy, providing funding, acceleration, mentorship, and coaching for a 12–18-month period.

It seeks to work with entrepreneurs who are actively developing sustainable solutions for the challenges we face today and will face in future.

The Catalyst’s aim is to establish Masdar City as a priority destination for sustainable innovation, fostering growth and scaling sustainable tech innovation, promoting entrepreneurship, developing human capital, and sponsoring positive social impact.

Startups supported by The Catalyst in 2022 include:

VOLTS ENERGY STORAGE

VOLTS has created an innovative smart energy storage device that can power a home or business. The technology is based on lithium-ion batteries connected by a smart internal system and controlled through a mobile app. The storage capacity varies depending on the selected device configuration (from 2 to 100 kWh) and can be expanded if necessary.

VOLTS accumulates electricity from conventional electric grids or from renewable energy sources, such as solar panels. It has an attractive design that makes it fit in with any interior, is 100% silent, and produces zero emissions.

In 2022, the company saw its customer pool grow, received a European conformity certificate and began research and development for new devices such as the EV Charger, as well as improving the VOLTS mobile app. In 2023, VOLTS intends to start production of energy storage devices at Masdar City.



KEY TECHNOLOGIES

Key Technologies is an engineering company that develops and produces bespoke surveillance systems. Its next-generation surveillance system “Theia” and global border and coastal surveillance system “Symban” provide for a sustainable, cost-saving platform that can be used by different customers, including environmental protection agencies, oil companies and public safety agencies.



HYDROARTPOD

HydroArtPod has developed a complete automated ecosystem that enables people to grow food indoors.

The consumer-scale product HydroArtPod is perfect for the home or office, allowing people to create a “living wall” that produces fresh produce year-round. Powered by proprietary software, its app-based approach, combined with drop-in seedpods and pre-dosed plant food pods, make it quick and convenient to operate.

With pre-sales customers initially focused in the UAE, USA, Canada and EU, HydroArtPod is set to ship in 2023. B2B, B2C and B2G opportunities are in discussion.

The larger HydroArtCube is designed for deployment within the community and enables people to step outside their front door and access their own organic food store.

The fully 15m² self-contained device grows 600 plants at once, and the company sees opportunities in the real estate development, hospitality and education sectors.



DE L'ARTA

De L’Arta creates sustainable clean products using native UAE flora and innovative formulations in the health and beauty sector. Using a science that dates back 10,000 years, the De L’Arta Outdoor Living Laboratory works to harness the sophistication, tenacity and resilience of the surrounding ecosystem and repurpose its value into future-ready products. De L’Arta seeks to regenerate, recover and up-cycle natural resources through the creation of a circular economy.

Under the Catalyst program, De L’Arta has developed its first skincare collection – [Tq] – made up of four products formulated with the best natural ingredients and powered by extracts of Tetraena qatariensis, a plant native to the UAE which has an extraordinary ability to survive the harshest of environments – the desert.

The plant’s antioxidant-rich, drought-resistant and salt-tolerant properties hydrate, nourish & protect skin from premature ageing caused by environmental pollutants. De L’Arta patented the use of this powerful extract and is the first to introduce this ingredient to the cosmetic industry.



SERAMIC MATERIALS

Seramic Materials leverages patented technology to upcycle industrial solid waste into sustainable high-value ceramic products, with a significant reduction in cost and carbon footprints, compared to conventional ceramics.

Born out of the Masdar Institute at Khalifa University, the startup 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. Construction materials include ceramic bricks, indoor and outdoor floorings, wall 3D tiles and paving stones.

In addition, Ceramic Materials develops technical ceramics and recently launched the world's first commercial thermal energy storage material that is 100% recycled.



QS MONITOR

QS Monitor is a smart food safety and traceability solution that utilizes its online platform for the optimisation of food trade across countries. The platform eliminates paperwork, testing and inspection, streamlining the process to reduce import times by a month, on average.

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.

QS Monitor has 572 members from 87 countries on the platform, connecting them to more than 450 laboratories and inspection companies. QS Monitor has already facilitated more than US\$10 billion worth of food trade and saved around US\$200 million worth of food loss across the value chain.



SOLVA TECHNOLOGIES

Solva Technologies is jumpstarting end-to-end electric deliveries, providing the world's first last mile electric delivery bike and platform combination.

The environmentally friendly transportation startup offers smart fleet management hardware and software for route, driver, and vehicle optimization.

Combined with data offerings, Solva adds value for customers via financial savings, automation and sustainable solutions – all through logistics optimization.

Solva's initial platform was launched in May 2022 and the company is currently developing its electric bike fleet to support businesses and entrepreneurs along their decarbonisation journey.



CIRCA BIOTECH

Circa Biotech upcycles food waste into high-protein animal feed using industrial farming of insects, specifically the black soldier fly larvae (BSFL), crossed with innovative industrial processing.

Several tonnes of food waste are collected from supermarkets and food processing operators and fed to BSFL under controlled conditions, as they can eat food waste and metabolize it very efficiently into proteins. It is a highly sustainable protein production process requiring low amounts of fertile land and water and producing almost no greenhouse gases.

Circa Biotech successfully established its lab-scale production at Masdar City, processing up to 100 kg of food waste per day and preparing to scale up production to 3 tonnes per day by the end of 2023.



TOGETHER FOR A MORE SUSTAINABLE FUTURE



Mohamed Ismail Mansour
Chairman, Infinity Power

At Infinity Power, sustainability is at the very core of who we are and what we do every day. We believe that electricity is a human right, particularly when delivered in environmentally conscious ways that ensure a healthy and secure future.

Our partnership with Masdar is crucial as we share the vision for a more sustainable future where renewable energy is the norm rather than the exception. We share the same values that compel us to address issues of sustainability from every angle – from efforts to decrease carbon footprints, to promoting environmental innovation through

socio-economic development initiatives and skills development, to raising public awareness related to sustainability across industries and within households. We share the same ambition toward the business and sustainability because we both recognize the importance of collaboration and strategic partnerships to help us implement our sustainability vision to live our values through projects we're developing across Africa. We made a considerable move in this direction with the acquisition of Lekela Power, last year, enabling us to create renewable energy resources and drive energy access to almost half of Africa's population who are still without access to basic electricity.

Together we are transforming the renewable energy industry in Egypt and across Africa by providing solutions for a cleaner, more sustainable future. As we deepen and strengthen our long-term business partnership with Masdar through Infinity Power, we will continue to contribute significantly in efforts towards climate change mitigation and global clean energy goals.

Our sustainable energy solutions respect the environment while enabling communities to realize their full potential. In fact, we seek to address, to the greatest extent possible, the Sustainable Development Goals (SDGs) highlighted by the United Nations (UN) in all of our projects, and endeavor to apply them in innovative ways that empower communities and create jobs.

Our Taqa Yadwya project and our Benban project are helping develop the agriculture value-chain to increase competitiveness and marketability and to improve livelihoods through women empowerment programs,

and create employment opportunities along the agriculture value-chain, respectively. Through agricultural value-chain development, these programs support the creation of direct and indirect economic opportunities, employment creation, entrepreneurship, and women empowerment within the projects' local communities.

Our sustainability efforts extend to the animal kingdom as well. Recently, we partnered with the Regional Center for Renewable Energy and Energy Efficiency (RCREEE) at our Ras Gharib Wind Farm to launch a training program for migratory bird monitoring and shutdown on-demand programs in wind power plants in the Gulf of Suez region, under supervision of qualified environmental and biodiversity advisors. This program meets the increasing demand for qualified Egyptian cadres in this field and supports migratory bird conservation programs, while providing in-office training, on-site practical training and implementation of skills for participants.

While our partnerships are varied and value added, the partnership between Infinity and Masdar is the model for sustainability efforts that combine research, innovation, implementation and impact for the benefit of our communities.

As we enable this global journey toward sustainability, we at Infinity Power look forward to a brighter, greener future.



An aerial photograph of a solar farm. The solar panels are arranged in long, parallel rows that curve across the landscape. A dirt road or path runs vertically through the center of the image. The ground is a mix of brown soil and dark shadows cast by the panels. A white curved line is drawn in the upper left corner of the image.

ENVIRONMENTAL AND SOCIAL CONTRIBUTIONS

TRANSITIONING THE WORLD TO CLEANER ENERGY



Fawaz Hadi Al Muharrami
Executive Director, Clean Energy

At Masdar, we have always been clear about our ambition to be a true clean energy pioneer that ensures the sustainability of the energy sector through innovative technologies. Given that we began our sustainable energy journey back in 2006, we have enjoyed a head-start against most of the market, where we have been first movers across several geographies and even renewable sectors.

This advantage will prove crucial, with the world focused on the clean energy sector as never before and the global transition to cleaner power accelerating. Masdar

has spent 17 years establishing long-standing and successful partnerships with governments, key market players, financial institutions, contractors, and suppliers around the world, allowing us to move quickly to develop and implement projects. The excellent reputation we have built means that we are able to leverage those partnerships today to bring down costs and drive projects through to completion.

ESG principles are at the heart of every project we lead. It is vital we ensure the right balance as we strive to achieve even greater progress in clean energy and beyond. In everything we do, it is our priority to embed a positive impact across the environment and the communities in which we operate.

Our strong track record has helped us to achieve and deliver on a number of landmark projects in 2022, such as announcing the agreement to develop a 10 GW onshore wind project in Egypt; delivering on our first renewable energy project in Azerbaijan and the nation's first foreign investment-based independent solar power project, the 230 MW Garadagh Solar PV Plant; as well as achieving financial close for the Zarafshan Wind Farm in Uzbekistan. These milestones reflect Masdar's commitment and ambition to grow, develop and take the clean energy sector to the next level, especially in developing economies.

Looking ahead, we will continue to maximize value across current and planned facilities. At the same time, we must remain competitive through the pursuit of new innovations and explore new opportunities in new geographies, such as Sub-Saharan Africa, and showcase our capabilities in new energy transition areas.

Hydrogen has been an area of interest for Masdar since as far back as 2010. This is

when we first investigated the potential integration of methane steam reforming methods with Carbon Capture Utilization and Storage (CCUS). More recently, we have been working on promising projects around green hydrogen, which is increasingly becoming a key focus as part of the energy transition and is an important energy carrier.

Green hydrogen helps overcome some of the issues with intermittency that are inherent in solar and wind energy. We also believe it can serve as an important transition element for industry, for example as a feedstock for steel production. This is why green hydrogen development forms an integral part of our growth strategy. In 2022, we signed landmark agreements to develop 4 GW-capacity green hydrogen plants in Egypt by the end of the decade, and we remain in discussions with other global partners with similar ambitions.

Masdar has spent many years pioneering the clean energy agenda around the world, working with governments to encourage their shift to renewable energies. With the UAE hosting COP28 in 2023, it is my hope that Masdar's successes so far will be seen as a prime example of how international cooperation can encourage transition, drive decarbonization and expedite the development of clean energy, for the benefit of everyone on Earth.



TECH JOURNAL SNAPSHOT 2022

The year 2022 saw significant achievements in sustainability-focused technical innovation and research, both here in the UAE and globally. Our tech journal snapshot highlights some of the most innovative technologies – from offshore wind and new solar technologies through to lithium-ion (Li-ion) battery developments and negative emissions technologies (NETs) – that have been explored over the past year as the world increasingly moves to a new energy future.

OFFSHORE WIND ENERGY

Wind power is one of the fastest-growing renewable energy technologies and is already the second-biggest form of power generation capacity in Europe. Although nearly 95% of wind energy is produced onshore, offshore wind has experienced significant growth over the past decade and will continue to grow as the costs of the technology decrease.

Masdar is increasingly targeting offshore wind projects as part of the overall objective of achieving 100 GW in renewables. The company is invested in some of the world's largest offshore wind farms, including Hywind Scotland – the world's first floating offshore wind farm – which provides approximately 22,000 UK homes with electricity, displacing 63,000 tonnes of carbon emissions each year.

The 30 MW facility consists of five 6 MW floating wind turbines, which are placed on top of a ballasted cylinder and anchored to the seabed. Suitable for harsh conditions, the project uses a simple three-line mooring system with motion control that reduces fatigue and increases production. This pioneering project demonstrates the commercial feasibility of even larger floating wind farms and opens up the possibility of capturing wind energy in deep-water environments.

Innovative activity in offshore wind focuses on developing next-generation wind turbines which can generate more energy for any given wind resource and new installations capable of being sited in deeper waters. In addition, the

development of power systems that enable low-cost transmission of electricity over long distances will be another critical driver of offshore wind development.

Given the limited availability of shallow waters with sufficient wind resources globally, floating wind farms are likely to see major interest from developers and investors and the use of next-generation, high-capacity wind turbines in combination with both fixed-bottom and floating foundations will be a common feature of future offshore wind projects.



CIRCULAR ECONOMY

A circular economy is an industrial system that is restorative or regenerative by intention and design, and therefore focused on recovering as much value as possible from end-of-life materials such as waste. Trends show that circular economy enabling technologies will see exponential growth over the next two decades, transforming how goods and services are designed, produced, and consumed.

The range of these innovations – from artificial intelligence to waste-to-resource to digitalization and automation – are enabling economic growth while minimizing environmental impact, reducing waste generation, limiting carbon emissions, and creating jobs.

Being among the highest waste generators per capita, the UAE understands the need to unlock new sustainable economic opportunities, as indicated by its comprehensive 2021–2031 Circular Economy Policy. The UAE plans to build expansive waste-to-energy capabilities – one of the largest facilities in the world is currently being built in Dubai. These efforts will only accelerate the momentum created through the UAE's first waste-to-energy facility, a joint venture between Masdar and BEEAH of Sharjah that diverts 300,000 tonnes of solid waste from landfills while generating 240,000 MWh of clean energy.

Meanwhile, Masdar City's The Catalyst, a Masdar-bp Initiative that is the region's first clean-technology startup accelerator, has played a large role in facilitating the success of two sustainability-focused circular economy startups, Circa Biotech and Ceramic Materials.



Circa Biotech upcycles food waste into high-protein animal feed using industrial farming of an insect, called the black soldier fly larvae (BSFL), with innovative industrial processing. By accelerating the growth rates of the larvae, more waste can be treated over the same period, in turn increasing protein and oil production. Ceramic Materials applies patented technology to upcycle industrial solid waste into sustainable and high-value ceramic products in the technical ceramics and construction materials markets.

NEGATIVE EMISSIONS TECHNOLOGIES

Progress has been made in low and zero carbon energy, but the introduction of NETs will be critical for the world to meet the goals of the Paris Agreement on climate change.



NETs are technologies that remove CO₂ from the atmosphere and permanently store it. Commercial deployment is still limited, and their CO₂-removal potential has not progressed beyond the modelling stage so far. However, NETs have re-emerged to prominence following studies highlighting that the world has exceeded its "carbon budget." NETs will require strong regulatory support to drive widespread adoption – both to incentivize the scale-up of projects and to allocate funding towards early-stage research and development.

The UAE is favorably positioned to implement a variety of NETs, notably carbon mineralization in olivine-rich rocks, direct air capture powered by solar energy, and mangrove restoration, with the cost of these projects lower here compared to other parts of the world. Mangroves play a critical role in the biodiversity and coastal health of the UAE, and many companies have made the trees a key environmental focus, planting millions of seedlings in the region that, when mature, have the potential to remove hundreds of thousands of tonnes of CO2 annually.

BIFACIAL SOLAR TECHNOLOGY

Solar energy is a vital clean energy source that has gained significant attention and importance in recent years. One major project of note in the UAE is Al Dhafra Solar PV IPP, which, when complete, will be one of the world's largest single-site solar power plants with gross capacity of 2.1 GW. It will use 4 million solar panels to generate enough electricity for 160,000 homes across the UAE, mitigating 2.4 million tonnes of carbon dioxide annually – the equivalent of removing nearly half a million cars from the road.

The solar PV independent power producer (IPP) project deploys the latest in crystalline, bifacial solar technology, which allows electricity to be delivered at high efficiency by using the front and back of panels.

This efficiency made it possible to offer the world's most cost-competitive tariff for solar PV energy, set at AED 4.97 fils/kWh (US\$0.0135/kWh), which is approximately 44% lower than the tariff set a few years ago at the Noor Abu Dhabi project – Abu Dhabi's first large-scale solar PV project and a world record tariff-setter at the time. The record-breaking project, located approximately 35 km from Abu Dhabi, will supply power to the plant's off-taker, Emirates Water and Electricity Company (EWEC).

Financial close was achieved in December 2020 on the project, which is owned 60% by TAQA and Masdar and 40% by EDF and JinkoPower. As of the end of 2022, Al Dhafra is 87% complete, with over 1.2 GW of PV modules installed and 900 MW connected to the grid.

Al Dhafra and other PV projects in the UAE continue to boost the country's solar capacity, playing a central role in delivering the UAE's Net Zero by 2050 strategic initiative and bolstering Masdar and the UAE's position as a global clean energy champion.



LITHIUM-ION BATTERY DEVELOPMENTS

Demand for lithium-ion (Li-ion) batteries is growing due to the rise of battery-powered electric vehicles and other technologies. However, Li-ion batteries are approaching performance limits, so interest in pushing back these limits or creating alternative technologies is rising.

Developers are investigating a variety of other battery technologies, such as sodium-sulfur, zinc-air, metal-air, and novel chemistries based on common metals like aluminum, with

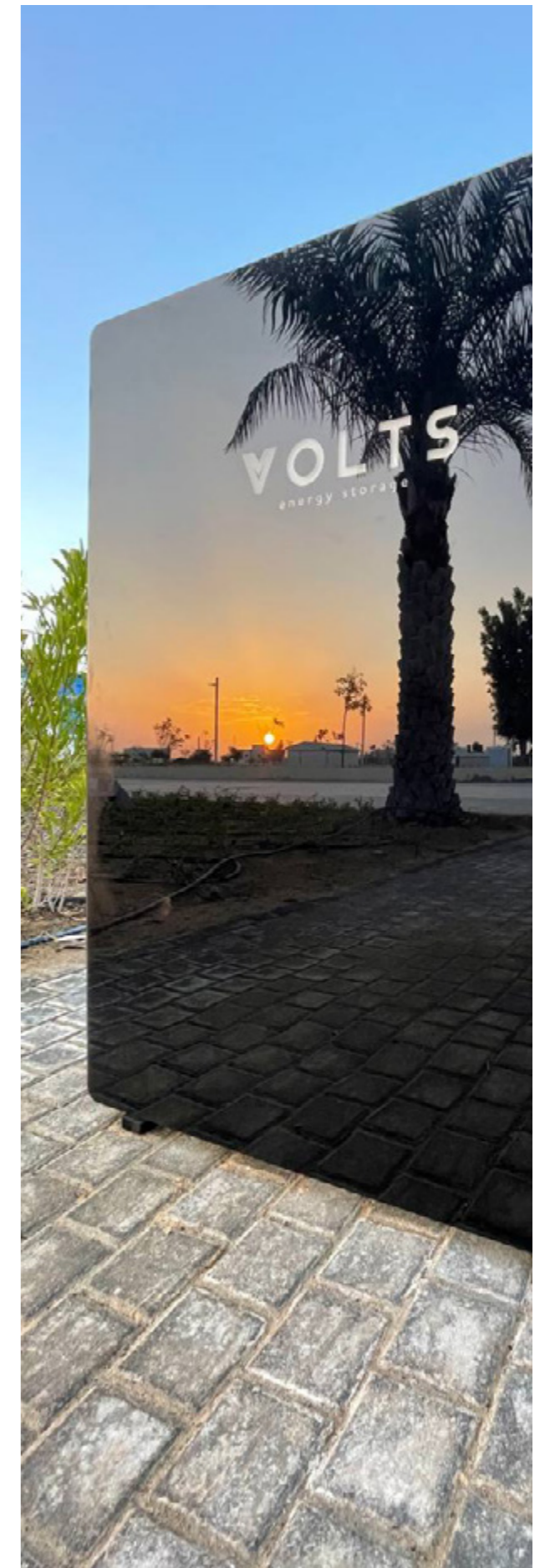
the potential for lower costs, higher capacity, better charge rates, longer cycle life and improved safety.

Other innovations being pursued include advanced battery analytics for performance optimization and accessing untapped value through so-called value stacking, which would see a single battery employed for multiple uses.

Masdar City has introduced several technologies to support sustainable electric mobility, with the Personal Rapid Transit system carrying more than 2 million people since its launch in 2010, and NAVYA and the Eco-bus completing the next phase of the mobility network. All these solutions are powered by Li-ion batteries.

VOLTS, also accelerated by The Catalyst, produces an in-house smart battery management system for managing and monitoring energy consumption inside the home. VOLTS creates different energy-use scenarios and defines a storage policy for the Li-ion battery, allowing users to customize a load schedule while the system maintains the battery charge at an optimum level.

Given the mature stage of Li-ion batteries, incremental innovations that seamlessly integrate into the existing supply chain are priorities for the industry. The UAE is well-positioned to continue the rapid adoption of Li-ion batteries in mobility and stationary applications, which will be key to supporting the country's net-zero targets by 2050.



PROJECT UNDER DEVELOPMENT

DRIVING GREEN HYDROGEN IN THE UAE

In 2022, Masdar and ENGIE, a global player in low-carbon energy and services, signed a collaboration agreement with Fertigllobe to explore the development of a globally cost-competitive green hydrogen facility in the UAE.

Known as Project Crystal, it is the first action taken by Masdar and Engie under a US\$5 billion Strategic Alliance, established in December 2021 in the presence of Highness Sheikh Mohamed bin Zayed Al Nahyan alongside the French President, Emmanuel Macron, to drive UAE's green hydrogen economy. The partners will collaborate with Fertigllobe, the largest producer of nitrogen fertilizers by production capacity in the MENA region, and an early mover in clean ammonia, to supply green hydrogen to Fertigllobe's ammonia production plants at Ruwais.

Project Crystal will help in positioning Masdar and Abu Dhabi as global leaders in a rapidly evolving green hydrogen market with a fast and simple setup of a first project with a long-term perspective, ensuring rapid time to market by leveraging existing infrastructure.

Project Crystal offers a benchmark for significant progress in the market and fits into Masdar's wider plans to develop green hydrogen in the UAE and globally aiming to reach 1 million tonnes gross capacity green hydrogen by 2030.

It is one of several projects and collaborations in the works for Masdar on green hydrogen, including the 4 GW program in Egypt and a 2 GW integrated offshore wind and green hydrogen plant in Azerbaijan. These projects demonstrate Masdar's ESG commitment to having a positive impact on the environment and paving the way forward for a cleaner future.

PROJECT UNDER DEVELOPMENT

SUPPORTING UZBEKISTAN TO ACCELERATE ITS ENERGY TRANSITION

Masdar continues to make a positive impact from the ESG standpoint by expanding in solar power in the Republic of Uzbekistan through several new projects that are helping the country achieve its clean energy and climate objectives.

Sherabad

The latest solar project under development is to design, build, finance and operate Sherabad, a 457 MW utility-scale solar PV project in the Surkhandarya region. Once completed, the new solar plant will further strengthen the country's renewable offering, powering almost half a million homes and mitigating 445,000 tonnes of carbon dioxide annually.

The agreement for the project was signed in August 2021 between Masdar, the Ministry of Investment and Foreign Trade of the Republic of Uzbekistan and JSC National Electric Grid, with the Asian Development Bank assisting with structuring the projects.

Sherabad is one of a number of planned projects as Masdar continues to expand its footprint in the country.

Samarkand and Jizzakh

Further agreements were signed in July 2021 to design, finance, build and operate two utility-scale solar PV projects, located in the Samarkand and Jizzakh regions, with a combined capacity of 440 MW. Once completed, the projects will each provide electricity to 264,000 homes and mitigate 237,000 tonnes of carbon dioxide annually.

The projects were agreed as a public-private partnership between Masdar, Uzbekistan's Ministry of Investment and Foreign Trade and JSC National Electric Grid, while the

International Finance Corporation assisted with structuring the projects through its Scaling Solar program.

Successful track record

These new projects build on Masdar's successful track record to date, with the 100 MW Nur Navoi Solar Project, the nation's first successfully financed independent power producer (IPP) solar project, launching commercial operation in August 2021. The 500 MW Zarafshan Wind Farm, the largest in Central Asia, achieved financial close in September 2022.

At the heart of these projects, Masdar implements the highest ESG standards. The detailed ESIA process was conducted following the best international standards, including baseline surveys, stakeholder engagements, impact analysis and monitoring measures.

Masdar continues to support Uzbekistan with its national goal of developing 7 GW of solar and 5 GW of wind capacity by 2030, as it targets meeting 25 per cent of electricity needs from renewable sources by that year. Uzbekistan remains a key region for Masdar, as the company continues to support and accelerate the nation in its energy transition.

ENVIRONMENTAL AND SOCIAL CONTRIBUTIONS



57,000 GWh

Indicative generation from clean sources - projects in operation / under construction / secured. The operational assets that Masdar owned or signed to acquire as of year-end 2022 produced 18,000 GWh.



30M tCO2

CO2 / carbon abated by total production capacity from projects in operation / under construction / secured. The operational assets that Masdar owned or signed to acquire as of year-end 2022 abated 10M tCO2.

MASDAR CITY



65.81%



Waste recycled as % of waste generated in 2022



696 tonnes



- 5% Paper and cardboard
- 1.4% Plastic
- 0.2% Glass
- 0.2% Cans
- 93.2% Garden waste

Operational waste diverted from landfill 2022



560 KgCO2/m2

Consolidated embodied carbon of Masdar City owned operational buildings



292,000+ trips

In Masdar City using clean mobility solutions ⁽¹⁾



63,280 MWh (~15,883 tonnes⁽²⁾)

Electricity consumption



571,308 m³ (~6,056 tonnes)

Water consumption



43,056 MWh (~10,807 tonnes)

Cooling consumption

⁽¹⁾ Including club cars, electric shuttles and electric bus
⁽²⁾ Equivalent CO2 emissions

BRINGING PEOPLE TOGETHER TO ADVANCE SUSTAINABILITY



Dr Lamya Nawaf Fawwaz
Executive Director,
Brand & Strategic Initiatives

At Masdar, we have steadily pursued our founding mandate to foster homegrown innovation and develop cutting-edge technologies to support the UAE's vision of economic diversification and positive climate action.

We also recognize that creating a successful clean energy transition is about more than just investing in technology, it is also about educating and empowering people. That is why Masdar has launched a range of initiatives to deliver this vision.

These include ADSW, a global initiative championed by the UAE and Masdar to accelerate sustainable development and advance economic, social, and environmental progress. Today, ADSW is not only a premier convener for global dialogue, but also a catalyst for concrete results. In 2022, ADSW hosted 30,000 participants from 175 countries, including eight country presidents.

One of the most uplifting events at ADSW is the Zayed Sustainability Prize awards ceremony, which recognizes small to medium-sized enterprises, nonprofit organizations, and high schools with impactful, innovative, and inspirational sustainable solutions. With 96 winners across its categories of Health, Food, Energy, Water, and Global High Schools, the Prize has positively impacted the lives of over 378 million people around the world.

As well as these initiatives, Masdar has set up platforms to champion the crucial role women and young people play in securing a sustainable future. Women in Sustainability, Environment, and Renewable Energy (WiSER) is dedicated to inspiring women to play an active role in addressing global sustainability challenges. In 2022, our global #IAmWiSER campaign invited policymakers, industry leaders and the public to pledge support for women as agents of sustainable change.

We also promoted community development through cultural exchange by launching WiSER Cares in 2022. Our inaugural trip involved sending a team of young women professionals to live in, and learn from, a rural off-grid community in Rwanda.

Masdar's Youth 4 Sustainability (Y4S) platform supports the development of young people, enabling them to become the sustainability leaders of tomorrow. Over the past 12 months,

Y4S made an impact on the global stage by bringing together teams of young people from the UAE, Africa and Europe to innovate sustainable solutions at the United Nations Climate Conference (COP27) in Egypt.

As the scope and reach of our work have expanded, so too have our ambitions for driving climate action. Whether it's women, young people, innovators, or global leaders, we are bringing key segments of society together to advance sustainability. With the UAE set to host COP28 later this year, at a vital time for climate action, this work is more important than ever.



STRATEGIC PLATFORMS

Masdar is committed to advancing the global dialogue on sustainability through its initiatives and world-class industry platforms. These include Abu Dhabi Sustainability Week (ADSW), one of the world's largest sustainability gatherings, the Women in Sustainability, Environment and Renewable Energy (WiSER) initiative, Youth 4 Sustainability (Y4S) and the Zayed Sustainability Prize (ZSP).

PLATFORM ENGAGEMENTS



247

Stakeholder visits involving government, embassy and diplomatic guests and corporate visitors



33

Y4S/WiSER activations



400,000+

Social media followers across strategic platforms



187

Speaking opportunities and media requests

WOMEN IN SUSTAINABILITY, ENVIRONMENT AND RENEWABLE ENERGY (WiSER)

WiSER is a Masdar platform dedicated to inspiring women to play an active role in addressing global sustainability challenges. Founded on the three core pillars of education, engagement and empowerment, it aims to promote new thinking, solutions and collaborations. 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.

Our WiSER Pioneers Program, a year-long program offering young women aged 25 to 35 access to bespoke opportunities, has continued to grow leadership, networking and leadership skills. Throughout 2022, WiSER offered great opportunities with more than 12 events held. The main event of the year was the WiSER Annual Forum. Here the WiSER Pioneers joined policymakers, industry leaders and other influential figures in an important discussion on empowering women to accelerate sustainable development. Following the Forum, they shared a White Paper discussing key issues influencing female empowerment in relation to equitable clean energy access and exploring gender-focused solutions.

WiSER CARES COURSE IN RWANDA

One of the highlights of the WiSER Pioneers program this year was the roll-out of a course on Rural Energy Access. Launched in Rwanda, the course is the inaugural offering of WiSER Cares, a multidisciplinary program launched to engage WiSER Pioneers in on-the-ground learning experiences that promote sustainable community development.

Fourteen young women, including nine WiSER Pioneers and five Rwandan professionals, completed the six-day WiSER Cares course, comprised of a series of lectures and hands-on projects led by global experts in renewable energy and sustainable development.



89

WiSER Pioneers program graduates over four years



26

Women enrolled on WiSER Pioneers Program in 2022



117 Hours

Of one-on-one mentorship sessions completed by this year's WiSER Pioneers program graduates

YOUTH 4 SUSTAINABILITY (Y4S)

Y4S is a Masdar platform that prepares students and young professionals to carry forward the sustainability agenda by becoming the leaders of tomorrow.

A series of programs, events and activations were held throughout 2022, reaching over 6,600 young people.

Aligned with the United Nations Sustainable Development Goals (SDGs) and the UAE's National Strategy, Y4S has introduced a series of programs, focused on students and young entrepreneurs, including the Sustainability Ambassadors (SA) and Future Sustainability Leaders (FSL).

Program participants are involved in a range of events and activations throughout the year, including Y4S Summer Camp.

In 2022 the camp included a panel discussion on how the participants and young people can upskill to mitigate climate change, as well as a 2-day hackathon exploring how artificial intelligence can be used to solve climate issues.



6,607

Young people reached through programs in 2022



130

Young people enrolled on the Future Sustainability Leader and Sustainability Ambassador programs



149

Young participants in the Y4S Summer Camp



21

Workshops and activations organized



ABU DHABI SUSTAINABILITY WEEK (ADSW)

Hosted by Masdar, ADSW is a global sustainability initiative that convenes world leaders annually to develop action-oriented solutions to the most pressing challenge of our time – climate change.

Since 2008, ADSW has hosted a series of global events that brings together heads of state, policy makers, international business leaders and technology pioneers, providing them with an inclusive platform to share knowledge, showcase innovation and outline strategies as we work together towards a net-zero future.

Running from 15 to 19 January 2022, ADSW was a hybrid event online and offline, hosting participants from 175 countries, including eight Presidents and Prime Ministers, over 50 Government Ministers and more than 600 global speakers.

The week-long ADSW comprises the IRENA Assembly, Atlantic Council Global Energy Forum, Zayed Sustainability Prize Awards Ceremony, ADSW Summit, World Future Energy Summit, Innovate, Youth 4 Sustainability Hub, WiSER Forum and the Abu Dhabi Sustainable Finance Forum.



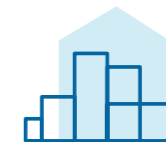
8,500

On-site visitors



55,000

Online views



470

Exhibiting companies



175

Countries represented



600

Speakers

ZAYED SUSTAINABILITY PRIZE

ZSP continued to have great reach in 2022. Over 370 million people have been positively impacted, with millions benefiting from renewable energy powering their homes, access to clean and affordable water and nutritious food.

The Prize, established in 2008, is the UAE'S pioneering global award for recognizing excellence in sustainability. It honors the Founding Father of the UAE, the late Sheikh Zayed bin Sultan Al Nahyan's legacy of humanitarianism and commitment to sustainability, by awarding non-profit organizations, small and medium-sized enterprises and high schools for their sustainable solutions across the categories of Health, Food, Energy, Water and Global High Schools.

BEYOND2020

One flagship project within the Zayed Sustainability Prize is Beyond2020. This UAE-driven humanitarian initiative, led by ZSP in partnership with various other organizations, continues to successfully transform the lives of thousands of people across the world.

In 2022, Beyond2020 continued to play a key role in supporting sustainable development on the ground, as the world engaged and coordinated action on a sustainable recovery from the COVID pandemic.

Recent project highlights include securing healthcare access in rural Rwanda, improving water access in the Philippines, supporting Rohingya refugees in Bangladesh and deploying lighting solutions for fishing communities in Indonesia. Thanks to these and other projects, the total impact of Beyond2020 has already risen to 150,600 lives.

Future projects are already planned for Costa Rica, Malaysia, Vietnam, India, Lebanon, Sudan, Ethiopia, Colombia and Peru.



2.3M

People have gained access to nutritious food through the SZP



96

SZP winners over past 14 years



370M

People positively impacted through SZP initiatives since its inception



150

Countries where SZP initiatives have had an impact



53M

Homes powered by renewable energy through the ZSP



11M

People gained access to clean, affordable water and sanitation



442,000

People received access to affordable, quality healthcare



A photograph of a modern architectural courtyard. In the foreground, a man in a white thobe and ghutra stands talking to a group of people sitting on a long, light-colored stone bench. The group includes a man in a dark suit and a woman in a white thobe. In the background, a man in a white shirt and blue trousers walks, and two women in black abayas walk away. The courtyard is paved with light-colored hexagonal tiles and features lush green plants and trees. A building with a glass facade and an orange perforated metal screen is visible in the background. The text "CULTURE AND PEOPLE" is overlaid in white, bold, sans-serif font on the right side of the image, with a horizontal line underneath it.

**CULTURE
AND PEOPLE**

OUR CULTURE AND PEOPLE



Nour Al Maskari
Director,
Emiratization and Human Capital

What makes Masdar unique is that we are united by a shared vision – to make Abu Dhabi the world’s reference point for knowledge and collaboration in the advancement of renewable energy, clean technologies, and sustainable development. With a presence in over 40 countries and a diverse workforce from 36 different nationalities, Masdar is a global energy powerhouse that is driving the sustainability agenda.

The talent we have at Masdar is one of our key strengths and most important assets as we continue to reach our ambitions now and, in the

years ahead. Through the new partnership with TAQA and ADNOC, who have joined Mubadala as shareholders, we will strengthen our talent pool and maintain the UAE’s leadership in the global energy sector.

At Masdar, it is a priority to focus on employee development, training, and wellbeing. This focus is what helps us attract, retain, and empower the best talent. Through programs such as Pioneers of Success, the Emerging Leaders, and the Masdar Mentorship Program, we support employees throughout their careers, helping them to progress within the Masdar family. We also recognize we have a unique responsibility to our nation, which is why we are committed to the development of promising local talent, from internships through to executive training for senior management.

By taking an employee-centric approach, we can recognize strong performers throughout the year – not just through official performance management processes but also through recognition initiatives like Kafu, Shukran and our annual awards. These initiatives have been refined over the years, with the aim of boosting morale and creating a stronger bond with our people.

Employee engagement has always been vital to the culture of a company, but the pandemic really shone a spotlight on this. The smooth operation we have at Masdar is thanks to the regular engagement and dialogue we have with everyone across the company, ensuring our people have the very latest information and knowledge at their fingertips. One way we engage is through frequent employee engagement surveys, and we are proud of our track record as an employer of choice. Our latest survey had an exceptional response rate of 91% and the findings were clear that our employees are proud to work for Masdar and fully believe in our mission and vision.

We place great focus on wellbeing in the workplace, and are proud of the many employee-led wellness programs and initiatives we have introduced over the last few years to support our staff, for example through our Employee Assistance Program and the Masdar Wellness Program.

We are strong advocates of promoting a healthy work-life balance and parent-friendly policies such as flexible working options. In 2022, we were delighted to be announced as a parent friendly workplace by the Abu Dhabi Early Childhood Authority, receiving the Parent-Friendly Label, which recognized Masdar as one of the best places to work. It highlighted our policies and benefits for parents, such as parental leave, our fully equipped nursing room, the recently opened nursery in Masdar City and flexible working hours that allow parents to drop off and pick up their children and to attend important school events.

As Masdar continues to grow and achieve new successes, the company remains committed to maintaining its strong workplace culture, ensuring we can attract and retain the best people. It is through the hard work and dedication of all its employees that Masdar can embrace the future and seize new opportunities with confidence.



CULTURE AND EMPLOYEE ENGAGEMENT

After what has been a challenging and disruptive time for the working environment, 2022 was a year in which we reached the point where we could transition back to some relative normality. We have been diligent in ensuring that we have continued to safeguard employee health through regular COVID testing and prevention methods.

Masdar colleagues have faced the disruption and uncertainty caused by the pandemic with resilience, proving their ability to adapt and respond in the face of difficulties, and keep productivity high.

We have only grown stronger as a team and Masdar continues to attract and retain top talent and to recognize, reward and invest in its people through robust training and development programs. We have put a real focus on ethics and diversity and a commitment to wellness and work-life balance, visible through awards won and learning and development offered to employees.

OUR AWARDS

Masdar was recognized in 2022 with awards including:

- Innovators of the Future, Arabian Business Award
- Dr Lamyia Fawwaz commended for Women in Renewables, WIRA Awards 2022
- Parent-friendly label for Masdar as part of Abu Dhabi Early Childhood Authority's workplace award program
- CEO listed under the Most Influential Arabs 2022 by Arabian Business
- CEO listed under the Top 100 CEOs in the Middle East by Forbes
- CEO listed under the Utilities ME Top 50
- MEPRA Awards for Best Integrated Campaign (For A Sustainable Future) – Silver
- Fatima Al Suwaidi recognized as Business Leader of the Year, Energy Box Award 2022
- Future Energy Leader of the Year, The Hydrogen Future Awards 2022.

LEARNING AND DEVELOPMENT

Growing the skills, abilities and knowledge of our people is essential to our continued success. In 2022, Masdar employees completed more than 4,000 hours of training across 43 internal and external courses. Topics ranged across soft and hard skills, including finance, data analysis, clean energy leadership, project management, slide design and storytelling.

We continued to support "Masdarians" throughout their career journey with our tailored program of learning initiatives for all levels and positions:



4,081.5
Hours of training



43
Internal and external courses

MY CAREER JOURNEY

Tailored to all Masdar employees, the career journey will allow employees to set clear goals for their professional future in Masdar and improve their careers with personalized training, flagship programs constant dialogue with their line managers.



ETHICS, DIVERSITY AND INCLUSION

Diversity is vital to any organization's success, as it provides different perspectives, experiences and expertise, allowing it to operate effectively and capitalize on a broader range of opportunities.

We are proud to empower women in supervisory roles at Masdar. They now account for almost a quarter of those in such positions. We are also pleased to report an overall retention rate of 98% in 2022.

As a proud UAE company, we remain committed to employing, training, developing and growing the best local talents, as well as drawing on a diverse pool of global workers from 36 nationalities. In 2022, we achieved an Emiratization rate of 52.34%, employing 112 citizens of our home market, the United Arab Emirates.



23.3%

Women in supervisory roles



98%

Retention rate



52.34%

Emiratization rate



WORKPLACE SAFETY

Health and safety is a major priority for Masdar. We are delighted to report zero HSE incidents for the second year running. We have robust workplace safety policies in place to safeguard our people. These apply to all employees and contractors. We conduct regular audits and inspections, as well as running internal and external training programs to ensure that the awareness and competencies of personnel are up to date.

We have created the QHSE Champions, a committee involving members of the senior management and employees from all departments and divisions of Masdar. This provides an opportunity for people from across Masdar to be involved in the development, implementation and evaluation of our health and safety system, ensuring that we have input and involvement at all levels. We also conduct regular meetings where QHSE performance, Management Review, QHSE Key findings and key focus areas are discussed. These meetings are held quarterly or as and when required.

Masdar conducts regular inspections and emergency drills and also "lessons learnt sessions" afterwards to discuss the key outcomes and learnings of these important practical activities.

MANAGEMENT CHANGES

2022 saw changes to our Executive Committee, with Tareq Al Qubali taking on the role of Acting Executive Director of Corporate Services, Dr Nikolas Meitanis being appointed as Executive Director for Strategy & Corporate Development and Ahmed Baghoum transitioning to the position of Executive Director for Masdar City.



0

Workplace injuries



4

Emergency drills conducted



77

Inspections completed





GOVERNANCE



GOOD GOVERNANCE:

A FOUNDATION FOR SUSTAINABLE GROWTH



Jonathan Evans
General Counsel,
Legal & Governance

At Masdar, good governance is the foundation of our operations, and development activities. It is an essential component in carrying out our business responsibly and ethically.

This requires two key ingredients. The first is a strong framework of policies and procedures. The second – and this is critical to delivery – is an engaged workforce who understand

the importance of ensuring these rules are consistently applied to warrant that the business operates in a compliant, accountable, and transparent manner.

Given Masdar's 2030 targets, it is of the utmost importance that good governance continues to be front and center of all our growth plans, whether through acquisitions, joint ventures, or organic growth from early-stage development.

Masdar's presence in many jurisdictions around the world – each with different and, in some cases, quite varied risk profiles – means that it is essential that we implement best practices in our day-to-day operations, across all parts of our business.

This includes maintaining responsible sourcing policies, our ethics and compliance program, and our anti-bribery and anti-corruption standards. In simple terms, we have to ensure we evaluate, identify, and mitigate the risks to our business, and demonstrate that we are living up to our values.

Ultimately, good standards of governance support the long-term success of our business, enable us to build positive relationships with all our employees and stakeholders, and help contribute to developing the sustainability of the communities in which our assets are located.

Masdar's robust approach to governance is essential to our sustainability strategy. It allows us to collectively adhere to sustainable practices and drive a positive impact in everything we do. We remain committed in our pursuit of adopting and meeting best practice governance standards across all functions.

OPTIMIZING SUSTAINABLE PROCUREMENT



Tareq Al Qubali
Acting Executive Director,
Corporate Services

Managing the supply chain in the best way possible is a crucial process that affects everything that Masdar does. It is vital for us to eliminate any procurement practices that cause delays or disrupt the many links in this chain.

That's why we are constantly reviewing our processes to ensure that procurement is efficient, agile, industry-leading and, most importantly, sustainable. Our cutting-edge vendor management system allows us to determine suppliers' capabilities, interests,

competitiveness, financial strength, and their own focus on sustainability. This means we can optimize our supplier base by avoiding under-performing suppliers and working exclusively with best-fit organizations.

All new suppliers are screened using an environmental criterion that ensures the compliance of the proposed or used materials with Masdar environmental standards. Too often companies make an effort to ensure that their own practices are sustainable, all while working with others who don't meet the required standards. By doing so, these suppliers are simply multiplying and passing on an overall negative impact, so Masdar employs a stringent process to ensure that this is not the case.

We also ensure that a proportion of spending goes to local suppliers by supporting small and medium-sized enterprises (SMEs) and playing a strategic role in implementing the National In-Country Value (ICV) Program to boost economic performance and support local industries, which will redirect higher portions of public spending into the national economy. By maintaining constant dialogue with suppliers to identify procurement practices that cause or contribute to negative impacts in the supply chain, we can ensure any issues are eliminated effectively.

Our technology also drives the consolidation of operations involving onsite and local support, allowing all users and vendors to contact technical support in their own language, thereby reducing paperwork. By managing lead times, ordering and payment routines, purchasing prices or changing orders, we maintain transparency and governance standards and ensure that contractual risks are managed, while adhering to fair and transparent policies.

Our sustainable procurement practices ensure optimal efficiency, reliability, and productivity which is a leading priority for Masdar's commitment as a global renewable energy leader and support the UAE's Energy Strategy 2050 for a sustainable economy.



BALANCED GOVERNANCE

Good governance is integral to the way Masdar carries out its day-to-day operations, with multiple layers of oversight in place to ensure a robust risk management landscape, from committees through to discussion forums.

There are strict and important guidelines in place for all Masdar employees to follow, with regular and ongoing checks made throughout the organization to ensure fundamental principles are followed, adhered to and practiced across all levels of the company.

INTERNAL AUDIT PROCEDURES

The Internal Audit department assists the company in its objectives by bringing a systematic and disciplined approach to evaluate risks. It ensures that risk management is appropriately identified and managed, and 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.



RESPONSIBLE SOURCING & COUNTERING 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 our 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 employees and suppliers alike.

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

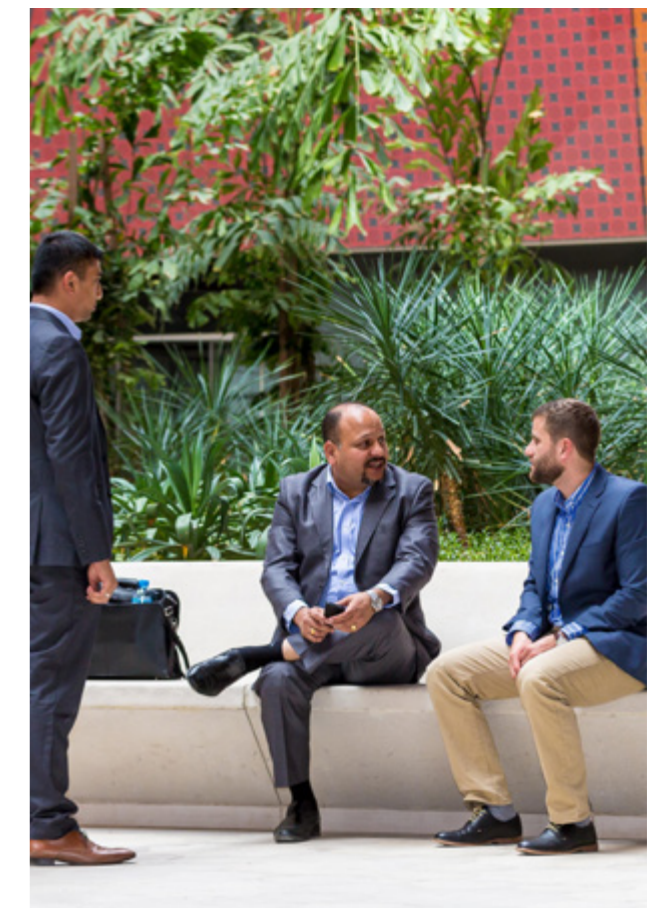
1. The supplier must comply with all relevant local and national laws and regulations regarding employment practices, benefits, health and safety, and anti-discrimination.
2. The supplier must not use child, forced or involuntary labor in any form.
3. The supplier must comply with all relevant local and national laws and regulations regarding 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 regarding 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.

EMBEDDING ETHICAL PRACTICES

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 training and refresher courses.



PROTECTING AGAINST FORCED OR COMPULSORY LABOR

Across all of its operations and suppliers, Masdar undertakes all necessary action to ensure there is no forced or compulsory labor in operations or across supply chains.

A key component of solar PV projects are the solar photovoltaic modules and inverters. The solar photovoltaic modules currently heavily depend on the use of polysilicon, which is mostly produced – in excess of 90% for the solar photovoltaic modules – in the People’s Republic of China (PRC).

In December 2021, specific sanctions were imposed by the US government in respect of the Xinjian Province in the PRC. Further, the Office of the United Nations High Commissioner for Human Rights’ report on the assessment of human rights (dated August 31, 2022) raised concerns on “human rights violations” and potential government laws and policies that could cause “arbitrary and discriminatory detention of members of Uyghur and other predominantly Muslim groups”.



As part of the sourcing of the photovoltaic modules for its projects, Masdar undertakes to ensure there is no forced labor in the supply chain. Specifically, Masdar takes the following actions with regards to its photovoltaic modules manufacturers:

- Compliance with the Masdar code of conduct for suppliers;
- Review of their code of conduct / code of ethics addressing their policy towards forced labor, child labor and modern slavery (as applicable);
- Review of their Environmental, Social and Governance document(s);
- Review of their suggested bill of materials that will be used for the manufacturing of the final product, specifying the name of the suggested manufacturer(s), their factory location(s) including the province(s) suggested;
- Completion of an extensive supply chain due diligence questionnaire.

Following review of the above documents and ensuring that none of the suggested manufacturers are sanctioned or operating for the specific project in a province of controversy, the focus for the shortlisting moves to their compliance with the legal terms and conditions, including but not limited to compliance with:

- International Labor Organization requirements specifically to forced labor, child labor and modern slavery;
- Internationally recognized environmental and social standards;
- Sanctions & Export Control Laws requirements;
- Labor Laws requirements as may be updated from time to time;
- Reasonable lenders requirements specific to forced labor, child labor and modern slavery.

Specific wording and contractual obligations are also included in the relevant agreements that address specifically:

- Sanctions and export control compliance;
- Forced labor compliance;
- Audit rights.

Further to the above and as the case may be specifically during production, a third-party inspection agency will be mobilized to ensure – in addition to the standard qualification, inspection and quality assurance activities – verification of the traceability including but not limited to:

- Verification of the compliance with the Bill of Materials (BOM) included in the module purchase agreement, which includes as applicable:
- Unpriced copies of the purchase orders for the specific material to show:
 - Order number;
 - Parties’ names (name of manufacturer and buyer);
 - Place of manufacture;
 - Date of manufacture;
 - Quantities and names of material;
 - Technical requirements / specifications (as may be applicable).
- Associated unpriced commercial invoices;
- Signed delivery note by the manufacturing factory for the specific material;
- Any import documents (as may be applicable);
- Any other traceability documents verifying the origin of the material.



MASDAR BOARD OF DIRECTORS & EXECUTIVE COMMITTEE

BOARD OF DIRECTORS

The main role of Masdar's Board of Directors is to oversee how management serves the interests of its shareholder and stakeholders. Masdar is part of Mubadala, which manages long-term investments that deliver strong financial returns and genuine social benefits for Abu Dhabi. Mubadala follows best governance practices and appoints board directors with deep knowledge and expertise from among its own employees, and other suitably qualified persons.



H.E. Dr Sultan Al Jaber
Chairman



Musabbeh Al Kaabi
Vice Chairman



Khaled Abdulla Al Qubaisi Dr. Bakheet Al Katheeri H.E. Dr Ahmad Belhoul H.E. Razan Khalifa Al Mubarak Ahmed Saeed Al Calily Mohamed Jameel Al Ramahi

Board Members



Mohamed Jameel Al Ramahi
Chief Executive Officer



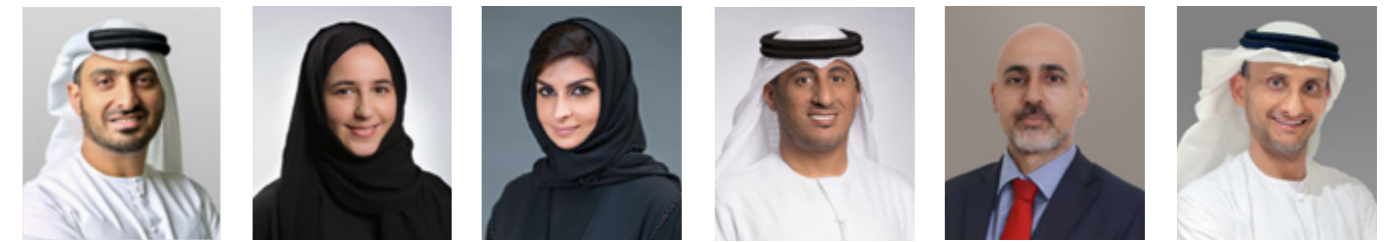
Niall Hannigan
Chief Financial Officer



Jonathan Evans
General Counsel, Legal

EXECUTIVE COMMITTEE

The primary role of the Executive Committee is the operational management and leadership of Masdar. The Committee reports to the Board of Directors.



Fawaz Hadi Al Muharrami Nour Al Maskari Dr Lamya Nawaf Fawwaz Tareq Al Qubali Dr Nikolas Meitanis Ahmed Baghoum

Executive Director, Clean Energy Director, Emiratization and Human Capital Executive Director, Brand & Strategic Initiatives Acting Executive Director, Corporate Services Executive Director, Strategy & Corporate Development Executive Director, Masdar City

MUBADALA'S CORPORATE GOVERNANCE

Masdar is wholly owned by Mubadala Investment Company, an established international investor which 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 organizations. 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.

Mubadala provides corporate governance oversight of Masdar's operations to ensure that the highest governance standards and delegation of authority are met.

A number of Mubadala leaders sit on the board, who provide advice and guidance on the leadership and governance of our organization:



Musabbeh Al Kaabi

Chief Executive Officer of Mubadala's UAE Investments platform



Khaled Abdulla Al Qubaisi

Chief Executive Officer, Real Estate & Infrastructure Investments at Mubadala



Dr. Bakheet Al Katheeri

Executive Director of UAE Industries unit within Mubadala's UAE Investments platform



Ahmed Saeed Al Calily

Chief Strategy & Risk Officer at Mubadala Investment Company

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 UAE Investments platform, which Masdar is part of, is Mubadala's vehicle to accelerate the transformation of the UAE's economy by building homegrown, world class champions, fostering vibrant industrial and commercial clusters, and engaging with global partners.

The platform incorporates UAE-led assets in multiple sectors including energy, metals, aerospace, technology, healthcare, real estate and infrastructure.

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



EXECUTIVE COMMITTEE

Members:

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

The Executive Committee's 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:

- Mohamed Al Ramahi, Masdar CEO (Committee Chairman)
- Dr. Bakheet Al Katheeri, Executive Director, Mubadala UAE Investments
- Niall Hannigan, Masdar CFO
- Nadia Bardawil, Senior Legal Counsel, Mubadala UAE Investments
- Muhannad Al Qudah, Platform CFO, Mubadala UAE Investments
- Gaston Urda, Head of Investments & M&A, UAE Clusters, Mubadala
- Inderpal Singh, Director, Mubadala UAE Investments

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 personnel from Masdar, as well as Mubadala.

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.





DISCLOSURES

2022 ALIGNMENT WITH UN SUSTAINABLE DEVELOPMENT GOALS (SDGs)

As a prominent player in renewable energy and sustainable urban development, we feel a responsibility to leverage our resources and innovative capabilities to contribute to the achievement of the UN SDGs.

Masdar is making a significant contribution across multiple SDGs through its core operations and strategic platforms:

2 ZERO HUNGER

- The ZSP awards non-profit organizations, small and medium-sized enterprises and high schools for their sustainable solutions across categories including food. The 2022 winner was S4S Technologies, an SME that is committed to empowering rural women and harnessing new technology to reduce food waste and improve income for farmers.
- Masdar also supports early-stage startups working with sustainable technologies through The Catalyst, a partnership between Masdar City and bp. Program participants tackling hunger and food include:
 - QS Monitor, a smart food safety and traceability solution that utilizes its online platform for the optimisation of food trade across countries;
 - Circa Biotech, which upcycles food waste into high-protein animal feed using industrial farming of insects;
 - HydroArtPod, which has developed a complete automated ecosystem that enables people to grow food indoors.

3 GOOD HEALTH AND WELL-BEING

- Masdar employees are provided with life insurance, healthcare, compassionate leave, maternity and paternity leave and medical insurance that covers them and their immediate family members.
- The company focuses on supporting employees' physical and mental wellbeing through wellness sessions and fitness programs.
- Masdar also runs an Employee Assistance Program to support staff in challenging situations.
- The company has stringent HSE practices in place that ensured zero workplace incidents for the second year running in 2022.

4 QUALITY EDUCATION

- Masdar employees completed more than 4,000 hours of training across 43 internal and external courses in 2022. Topics included finance, data analysis, clean energy leadership,

project management, slide design and storytelling. This internal and external training engaged 343 employees, with an average training satisfaction score of 4.2. Average training per employee per year was approximately 15 hours.

- We continue to support employees throughout their career journey with our Pioneers of Success, Mentorship, Emerging Leaders, Administrative Excellence, Discover Yourself and executive education programs.
- 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.
- It also houses the Knowledge Centre, which is the gateway to the Masdar City campus of the Khalifa University of Science and Technology.

5 GENDER EQUALITY

- WiSER is a Masdar outreach platform that 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 and strives to position women of all nationalities as drivers of change and innovation, while ensuring that their voices are heard across the sustainability debate – whether on issues of policy, technology or business.
- Women accounted for 23.3% of Masdar employees in supervisory roles in 2022.
- Masdar supports families and, in 2022,





was awarded a “parent-friendly” label as part of the Abu Dhabi Early Childhood Authority’s workplace award program. We actively support parents through the availability of a dedicated nursing room, flexible work solutions, school support and other benefits. A total of 10 employees took parental leave in 2022.

6 CLEAN WATER AND SANITATION



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

7 AFFORDABLE AND CLEAN ENERGY



- Masdar generated 15,629 GWh from clean energy sources in 2022.
- The company has 15 GW of total production capacity at its clean energy projects worldwide. It has a global target of 100 GW of renewable energy capacity by 2030.
- Masdar is exploring green hydrogen production, aiming to reach an annual capacity of 1 million tonnes by 2030, which would save over 6 million tonnes of CO2 emissions.
- In 2022, Masdar achieved financial close on the 500 MW Zarafshan wind farm in Uzbekistan and the 230 MW Garadagh solar PV plant in Azerbaijan, as well as agreeing to develop a 10 GW onshore wind project in Egypt.

9 INDUSTRIES, INNOVATION AND INFRASTRUCTURE



- Masdar City is a pioneer in sustainability, hub for research and development, and host to The Catalyst, a sustainability startup accelerator in partnership with bp. The city is also home to Abu Dhabi’s only planned and approved R&D cluster.
- The city hosts a number of organizations committed to advancing the sustainability agenda and spearheading innovation to realize greener, more sustainable urban living. This includes, among others, IRENA, the UAE Space Agency, and companies like Siemens, Honeywell and Saint-Gobain.
- Masdar City has developed and hosted several 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.
- The 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 fully electric passenger bus in the region.

11 SUSTAINABLE CITIES AND COMMUNITIES



- Masdar City is home to a business free zone with more than 1,100 registered companies, as well as a residential neighborhood with restaurants, shops, and public green spaces.
- Masdar City buildings are designed to consume 40 percent less water and electricity than the Abu Dhabi average.
- Masdar’s projects are making a



sustainable impact on countries around the world by providing clean and accessible energy and through its strategic platforms.

- Masdar City has one of the world's largest clusters of Leadership in Energy and Environmental Design (LEED) Platinum-certified buildings.

13 CLIMATE ACTION



- Masdar's projects have a direct and tangible impact in the fight against climate change around the world.
- Masdar's operational projects abated more than 10 million tonnes of CO2 in 2022.

17 PARTNERSHIPS FOR THE GOALS



- On 8 December 2022, Mubadala signed a strategic agreement with TAQA and ADNOC, with the three companies joining forces as Masdar shareholders. This marks the start of a new chapter for Masdar, strengthening its position as a global energy powerhouse in renewable power, green hydrogen, and clean energy technologies.
- 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.
- In 2022, Masdar signed an agreement to develop 4 GW of green hydrogen capacity in Egypt and also joined bp's green hydrogen project in the UK, HyGreen Teeside.

- Masdar-hosted ADSW, the largest sustainability gathering in the Middle East, which is a platform to share knowledge, attract investment and stimulate business partnerships that can help achieve SDGs.



GRI REFERENCING

Abu Dhabi Future Energy Company (Masdar) has reported the information cited in this GRI content index for the period January to December 2022 with reference to the GRI Standards - GRI 1: Foundation 2021.



GRI Standard	Disclosure Number	Disclosure Name	Page Reference/ Direct Response
GRI 2: General Disclosures 2021	2-1	Organizational details	Abu Dhabi Future Energy Company (Masdar)
	2-2	Entities included in the organization's sustainability reporting	N/A
	2-3	Reporting period, frequency and contact point	January - December 2022 Ms. Saba Ahmed Al Delfi Email: Saldelfi@masdar.ae
	2-4	Restatements of information	No restatements made in this report.
	2-5	External assurance	N/A
	2-6	Activities, value chain and other business relationships	80 - 83
	2-7	Employees	70 - 74
	2-8	Workers who are not employees	70 - 74
	2-9	Governance structure and composition	82, 86 - 90
	2-10	Nomination and selection of the highest governance body	Masdar is part of Mubadala, which manages long-term investments that deliver strong financial returns and genuine social benefits for Abu Dhabi. As part of its responsibility, Mubadala is responsible to choose the board from among its own employees, and other suitably qualified persons. As there is no formal criteria published, but sectoral experience is relevant when selecting highest governance body. 86 - 90
	2-11	Chair of the highest governance body	86 - 88
	2-12	Role of the highest governance body in overseeing the management of impacts	86 - 90
	2-13	Delegation of responsibility for managing impacts	79, 82, 84, 86, 88, 90
	2-14	Role of the highest governance body in sustainability reporting	86 - 90
	2-15	Conflicts of interest	Masdar has multiple layers of oversight in place through its code of conduct, compliance programs, policies, processes and committees to ensure that conflicts of interest and other compliance risks are identified and managed appropriately. A periodic review is carried out of the company's policies and business strategies and appropriate advice and training is provided on any changes in governance matters to employees, the management and board.
	2-16	Communication of critical concerns	No critical concerns arose for the reporting period 2022. With effect from the 8th of December 2022 critical concerns if any have been managed by Masdar's Management and overseen by the Strategic Investment Committee or the Audit and Risk Committee.

GRI Standard	Disclosure Number	Disclosure Name	Page Reference/ Direct Response
GRI 2: General Disclosures 2021	2-17	Collective knowledge of the highest governance body	86 - 90
	2-18	Evaluation of the performance of the highest governance body	Evaluation of the performance of the highest governance body is a self appraisal process that the Mubadala shareholder uses to assess the performance of the board of directors and its board committees.
	2-19	Remuneration policies	Masdar provides equitable, fair and competitive salaries, allowances and other benefits, in order to attract, retain and reward employees. This includes salaries, relevant allowances, relevant benefits, relevant pension schemes, relevant medical and life insurance as well as performance-based rewards such as merit increases and annual bonus that ensure a clear link between the performance management system and rewards.
	2-20	Process to determine remuneration	Remuneration policies are recommended by Masdar Human Capital, in close collaboration with the senior management and in alignment with relevant market benchmarks and best practices. This follows the governance framework of approvals with relevant Delegation of Authority (DOA).
	2-21	Annual total compensation ratio	N/A
	2-22	Statement on sustainable development strategy	8 - 9, 10 - 11, 22 - 23, 32 - 33, 36 - 37, 50 - 51, 60 - 61, 70 - 71, 78 - 79, 80 - 81
	2-23	Policy commitments	26, 75, 82 - 84
	2-24	Embedding policy commitments	82 - 84, 89
	2-25	Processes to remediate negative impacts	82 - 84
	2-26	Mechanisms for seeking advice and raising concerns	79 - 82
	2-27	Compliance with laws and regulations	79 - 84
	2-28	Membership associations	15 - 17, 29, 38, 40, 42 - 46, 52 - 57, 62 - 67, 94 - 98
	2-29	Approach to stakeholder engagement	8, 10, 15 - 17, 24, 26 - 27, 29, 33 - 35, 38, 40, 42 - 46, 52 - 57, 62 - 67
	2-30	Collective bargaining agreements	80 - 83
GRI 3: Material Topics 2021	3-1	Process to determine material topics	24 - 26
	3-2	List of material topics	26, 94 - 98
	3-3	Management of material topics	26, 94 - 98
GRI 201: Economic Performance 2016	201-1	Direct Economic Value generated and distributed	N/A
	201-2	Financial implications and other risks and opportunities due to climate change	32 - 37, 50 - 51
	201-3	Defined benefit plan obligations and other retirement plans	Masdar complies with the mandatory pension fund regulations in the countries in which it operates. In the UAE, it follows the AD pension fund and the GCC pension fund. We ensure adherence to the local requirements for pensions and retirement.

GRI Standard	Disclosure Number	Disclosure Name	Page Reference/ Direct Response
	201-4	Financial assistance received from government	N/A
GRI 202: Market Presence 2016	202-1	Ratios of standard entry level wage by gender compared to local minimum wage	There is no minimum salary stipulated in the UAE Labor Law.
	202-2	Proportion of senior management hired from the local community	74
GRI 203: Indirect Economic Impacts 2016	203-1	Infrastructure investments and services supported	29, 32, 34 - 38, 42 - 45, 50 - 57
	203-2	Significant indirect economic impacts	29, 32, 34 - 38, 42 - 45, 50 - 57
GRI 204: Procurement Practices 2016	204-1	Proportion of spending on local suppliers	Masdar signed a Memorandum of Understanding (MoU) with the Ministry of Industry & Advanced Technology (MoIAT) to become a Strategic Partner to the In-Country Value program (ICV) on January 19, 2022. Masdar subsequently obtained ICV certification, which demonstrates its support for the local market and is integrated throughout its procurement process. Masdar's commitment to ICV reflects its dedication to incentivizing local spend, sustainability and contributing to the sustainable development of the UAE. News Links: https://moiat.gov.ae/en/media-center/news/2022/01/21/icv-and-masdarw https://www.thenationalnews.com/business/economy/2022/01/19/uae-cyber-security-council-and-masdar-join-nations-in-country-value-programme/
GRI 205: Anti-corruption 2016	205-1	Operations assessed for risks related to corruption	All Masdar's operations are assessed for corruption and other material compliance risks. All compliance risk analysis carried out by the compliance team is risk-based. Significant risks relating to corruption identified through the risk assessments span the typical range for an investment company that carries out its business in the wide range of jurisdictions that Masdar has invested in. Greater scrutiny is given to jurisdictions or areas that have a higher rating of corruption and early indicators of corrupt behavior both of employees and the contractor workforce and suppliers are assessed and monitored.
	205-2	Communication and training about anti-corruption policies and procedures	26, 79, 82 - 83
	205-3	Confirmed incidents of corruption and actions taken	No cases of corruption-related incidents were detected / observed in 2022.
GRI 206: Anti-competitive Behavior 2016	206-1	Legal actions for anti-competitive behaviour, anti-trust, and monopoly practices	No legal actions or regulatory enforcement action or third-party investigations have been carried out by Masdar in relation to anti-competitive behavior, anti-trust, and monopoly practices.

GRI Standard	Disclosure Number	Disclosure Name	Page Reference/ Direct Response
GRI 301: Materials 2016	301-1	Materials used by weight or volume	N/A
	301-2	Recycled input materials used	N/A
	301-3	Reclaimed products and their packaging materials	N/A
GRI 302: Energy 2016	302-1	Energy consumption within the organization	58 - 59
	302-2	Energy consumption outside of the organization	Not yet disclosed.
	302-3	Energy intensity	Masdar buildings are operating well below the Abu Dhabi building energy intensity baseline –approximately ~200 kwh/m2/year.
	302-4	Reduction of energy consumption	59
GRI 302: Energy 2016	302-5	Reductions in energy requirements of products and services	Not yet disclosed.
GRI 303: Water and Effluents 2018	303-1	Interactions with water as a shared resource	N/A
	303-2	Management of water discharge-related impacts	N/A
	303-3	Water withdrawal	N/A
	303-4	Water discharge	N/A
	303-5	Water consumption	59
GRI 304: Biodiversity 2016	304-1	Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	Not yet disclosed.
	304-2	Significant impacts of activities, products, and services on biodiversity	Masdar takes steps to monitor and mitigate all impacts to biodiversity.
	304-3	Habitats protected or restored	Not yet disclosed.
	304-4	IUCN Red List species and national conservation list species with habitats in areas affected by operations	Not yet disclosed.
GRI 305: Emissions 2016	305-1	Direct (Scope 1) GHG emissions	Not yet disclosed.
	305-2	Energy indirect (Scope 2) GHG Emissions	59
	305-3	Other indirect (Scope 3) GHG emissions	59
	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)	N/A
	305-7	Nitrogen oxides (NOX), sulphur oxides (SOX), and other significant air emissions	N/A

GRI Standard	Disclosure Number	Disclosure Name	Page Reference/ Direct Response
GRI 306: Waste 2020	306-1	Waste generation and significant waste-related impacts	Not yet disclosed.
	306-2	Management of significant waste-related impacts	58
	306-3	Waste generated	58
	306-4	Waste diverted from disposal	58
	306-5	Waste directed to disposal	58
GRI 308: Supplier Environmental Assessment 2016	308-1	New suppliers that were screened using environmental criteria	N/A
	308-2	Negative environmental impacts in the supply chain and actions taken	No known incidents in 2022.
GRI 401: Employment 2016	401-1	New employee hires and employee turnover	21 new hires. 30 departures.
	401-2	Benefits provided to full-time employees that are not provided to temporary or part-time employees	72 - 73
	401-3	Parental leave	70 - 71, 96
GRI 402: Labor/ Management Relations 2016	402-1	Minimum notice periods regarding operational changes	Masdar maintains a transparent and open channel of communication with all employees on all matters affecting their work. Any operational changes are communicated in a timely manner using the official channels to provide all details and information.
GRI 403: Occupational Health and Safety 2018	403-1	Occupational health and safety management system	Masdar has in place a QHSE Policy statement and OHS Policy statement approved by the CEO, communicated to all employees during induction, and displayed across all sites of operation. We are also certified for ISO 45001:2018 Management system all Policies and Procedures are in line with this.
	403-2	Hazard identification, risk assessment, and incident investigation	Masdar has Risk Management, Incident reporting, and Incident investigation Procedures in place. This is communicated to all employees during their induction and is also placed on the organization's intranet 'The Source' for all employees to have access and review as and when needed.
	403-3	Occupational health services	26, 75
	403-4	Worker participation, consultation, and communication on occupational health and safety	There is a "communication, participation and consultation procedure" in place which focuses on identification of hazards and risks. There is also an Inspections and Audits program in place that focuses on identification of hazards and risks, ensuring all findings are closed out and complied without compromising on QHSE.

GRI Standard	Disclosure Number	Disclosure Name	Page Reference/ Direct Response
GRI 403: Occupational Health and Safety 2018	403-5	Worker training on occupational health and safety	Human Capital (HC), in coordination with QHSE, conducts relevant Occupational Health & Safety awareness sessions. Throughout the organization, QHSE Champions have been identified, which include representation from all levels, from different departments and divisions of Masdar. Quarterly and/or when required meetings are held where QHSE performance, Management Review, QHSE key findings and key focus areas are discussed.
	403-6	Promotion of worker health	70 - 72, 75
	403-7	Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	We provide awareness training, for example on Emergency Preparedness and Evacuation Procedures during QHSE induction, and periodically issue digital awareness alerts based on situational needs.
	403-8	Workers covered by an occupational health and safety management system	Human Capital (HC), in coordination with QHSE conducts relevant Occupational Health & Safety awareness sessions for e.g. Ergonomics workshop etc. The QHSE department periodically releases safety alerts.
	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 2016	404-1	Average hours of training per year per employee	70 - 71, 73, 94 - 95
	404-2	Programs for upgrading employee skills and transition assistance programs	70 - 71, 73 - 74
	404-3	Percentage of employees receiving regular performance and career development reviews	100%
GRI 405: Diversity and Equal Opportunity 2016	405-1	Diversity of governance bodies and employees	86 - 90
	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, progression of staff within the company over a long period of time. The salary for each employee is NOT based on gender during the recruitment process and is directly driven by the job evaluation and grading scale.
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 organization in 2022.

GRI Standard	Disclosure Number	Disclosure Name	Page Reference/ Direct Response
GRI 407: Freedom of Association and Collective Bargaining 2016	407-1	Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk	Nothing to report in 2022.
GRI 408: Child Labor 2016	408-1	Operations and suppliers at significant risk for incidents of child labor	Masdar's internal policies and strict supplier selection procedures alleviate risks relating to any compulsory or child labor.
GRI 409: Forced or Compulsory Labor 2016	409-1	Operations and suppliers at significant risk for incidents of forced and compulsory labor	83 - 85
GRI 410: Security Practices 2016	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 MIC policy. This applies only to security employed by Masdar and not by O&M/EPC contractors at project sites.
GRI 411: Rights of Indigenous Peoples 2016	411-1	Incidents of violations involving rights of indigenous peoples	Nothing to report in 2022.
GRI 413: Local Communities 2016	413-1	Operations with local community engagement, impact assessments, and development programs	Nothing to report in 2022.
	413-2	Operations with significant actual and potential negative impacts on local communities	Nothing to report in 2022.
GRI 414: Supplier Social Assessment 2016	414-1	New suppliers that were screened using social criteria	80 - 81, 83 - 85
	414-2	Negative social impacts in the supply chain and actions taken	No known incidents in 2022.
GRI 415: Public Policy 2016	415-1	Political contributions	N/A
GRI 416: Customer Health and Safety 2016	416-1	Assessment of the health and safety impacts of product and service categories	No known incidents in 2022.
	416-2	Incidents of non-compliance concerning the health and safety impacts of products and services	No known incidents in 2022.
GRI 417: Marketing and Labeling 2016	417-1	Requirements for product and service information and labelling	N/A
	417-2	Incidents of non-compliance concerning product and service information and labelling	No known incidents in 2022.
	417-3	Incidents of non-compliance concerning marketing communications	No known incidents in 2022.
GRI 418: Customer Privacy 2016	418-1	Substantiated complaints concerning breaches of customer privacy and losses of customer data	No complaints received regarding this matter in 2022.

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