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ASSESSMENT
13 June 2023

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Abu Dhabi Future Energy Company PJSC (Masdar)

Second Party Opinion – Green Finance Framework Assigned SQS1 Sustainability Quality Score

Summary

We have assigned an SQS1 Sustainability Quality Score to Abu Dhabi Future Energy Company PJSC (Masdar)'s Green Finance Framework, dated 18 May 2023. Masdar has established a use-of-proceeds framework with the aim of financing projects across two eligible green categories. The framework is aligned with the four core components of the International Capital Market Association's (ICMA) Green Bond Principles (GBP) (including the June 2022 Appendix 1), and the Green Loan Principles (GLP) of the Asia Pacific Loan Market Association, the Loan Market Association, and the Loan Syndications and Trading Association (LMA/APLMA/LSTA). The company has also incorporated recommended practices under these principles and identified best practices for all four components. The framework demonstrates a high contribution to sustainability.

Sustainability quality score

SQS1

SQS5	SQS4	SQS3	SQS2	SQS1
Weak	Intermediate	Good	Very good	Excellent

Alignment with principles
USE OF PROCEEDS

Overall alignment

Not aligned	Partially aligned	Aligned	Best practices

FACTORS	ALIGNMENT
Use of proceeds	
Evaluation and selection	
Management of proceeds	
Reporting	

Contribution to sustainability

Overall contribution

Poor	Limited	Moderate	Significant	High

Expected impact
Relevance and magnitude

ADJUSTMENTS	
ESG risk management	No adjustment
Coherence	No adjustment

Scope

We have provided a Second Party Opinion (SPO) on the sustainability credentials of Abu Dhabi Future Energy Company PJSC (Masdar)'s Green Finance Framework, including the framework's alignment with the ICMA's GBP 2021 (including the June 2022 Appendix 1) and the LMA/APLMA/LSTA's GLP 2023. Under its framework, the company plans to finance projects comprising two green categories, as outlined in Appendix 2 of this report using use-of-proceeds green bonds, loans, private placements and sukuk (green finance instruments). The framework applies to Masdar and its subsidiaries.

Our assessment is based on the last updated version of Masdar's framework dated 18 May 2023, and our opinion reflects our point-in-time assessment of the details contained in this version of the framework, as well as other public and non-public information provided by the company.

We produced this SPO based on our Framework to Provide Second Party Opinions on Sustainable Debt, published in October 2022.

Issuer profile

Abu Dhabi Future Energy Company PJSC (Masdar) was established in 2006 as the Government of Abu Dhabi's primary vehicle for investing in renewable energy and sustainable development. The company mainly invests in clean energy, and develops, owns and operates renewable energy projects in Abu Dhabi and more than 30 other countries, usually through joint ventures.

Masdar is ultimately controlled by the Government of Abu Dhabi, and it supports the United Arab Emirates' (UAE) transition to a sustainable and diversified economy. Masdar's has positive exposures to environmental factors, moderate social risk and low governance risk. Its role as a vehicle for Abu Dhabi's domestic decarbonisation policy and international climate diplomacy underpins its strategic importance to its holding company and the state. Masdar's positive environmental risk reflects the growing demand for renewable electricity to achieve national targets and international commitments, which enable the company to secure subsidies, offtake agreements and financing on commercially attractive terms. Masdar City attracts tenants because of its sustainability credentials and the Government of Abu Dhabi's support for the city as a hub for innovation in water and energy efficiency.

Strengths

» Financing of best-in-class renewable energy and energy efficiency projects that are likely to have a high contribution to sustainability

» Clearly defined eligible categories, environmental benefits and objectives

» Comprehensive and transparent project evaluation and selection process, including a robust environmental and social risk mitigation process

» Commitment to engage an external reviewer to conduct a post-issuance annual assurance to ensure the quality of allocation and impact reporting

Challenges

» The country's targeted electricity mix for 2050 still remains heavily dependent on fossil fuel assets despite the development of new renewable energy capacities, although this is outside Masdar's control.

Alignment with principles

Masdar's green finance framework is aligned with the four core components of the ICMA's GBP 2021 (including the June 2022 Appendix 1) and the LMA/APLMA/LSTA's GLP 2023, and is in line with best practices identified by us:

- ☑ Green Bond Principles (GBP)
- ☐ Social Bond Principles (SBP)
- ☑ Green Loan Principles (GLP)
- ☐ Social Loan Principles (SLP)
- ☐ Sustainability-Linked Bond Principles (SLBP)
- ☐ Sustainability Linked Loan Principles (SLLP)

Use of proceeds

Not aligned	Partially aligned	Aligned	Best practices ▼

Clarity of the eligible categories – BEST PRACTICES

Masdar has clearly communicated the nature of expenditure, eligibility and exclusion criteria for all the projects, and refers to the EU taxonomy to enhance clarity and transparency. The use of proceeds is likely to include equity investments in partnerships or joint ventures. However, the company will ensure that only its share of investment is considered in its eligible green projects, and it will also ensure that the double counting of green assets is prevented.

Reflecting its global operations, project locations are not disclosed in the framework, and Masdar intends to invest the proceeds worldwide, excluding sanctioned countries. However, to enhance transparency, the company discloses a list of projects invested on its website[1], including respective locations and other relevant details.

Clarity of the environmental or social objectives – BEST PRACTICES

The environmental objectives associated with both eligible categories are clear and relevant. In addition, the objectives are coherent with international standards, including the UN's Sustainable Development Goals (SDGs) and the EU taxonomy, which are referred to within the framework.

Clarity of the expected benefits – BEST PRACTICES

The expected benefits identified are clear and relevant for both categories. These benefits are measurable and the company plans to report them in its ongoing reporting. The company has committed to disclosing the expected share of refinancing should the proceeds be used for refinancing. The look-back period is up to 24 months.

Best practices identified

» Eligibility criteria are clearly defined for all project categories

» Objectives set are defined, relevant and coherent for all project categories

» Relevant benefits are identified for all project categories

» Benefits are measurable and quantified for most projects with a commitment to do so in future reporting

» Commitment to transparently disclose the share of proceeds used for refinancing where feasible

» The look-back period is up to 24 months

Process for project evaluation and selection

Not aligned	Partially aligned	Aligned	Best practices

Transparency and quality of process for defining eligible projects – BEST PRACTICES
Masdar has established a clear process for determining the eligibility of projects, with granular decision-making criteria formalized in its public framework and internal documentation. The company's Sustainability, Strategy and Investment Committee (SSIC) is responsible for updating the register of eligible green projects (the green finance register), which will also ensure the traceability of the decision-making process, based on recommendations by its ESG and structured finance teams. In addition, the teams are responsible for monitoring the green finance register to ensure that the projects continue to satisfy the eligibility criteria and comply with internal relevant requirements for the prevention of significant environmental and social issues.

The roles and responsibilities for project evaluation and selection are clearly defined and include relevant expertise, such as Masdar's CEO and CFO and other senior executives from Masdar's shareholders including the CEO of its largest shareholder, Abu Dhabi National Energy Company (TAQA), which chairs the SSIC.

Environmental and social risk mitigation process – BEST PRACTICES
Masdar has established a comprehensive environmental and social risk mitigation process. On a non-exhaustive basis, each eligible project will have its own environmental and social impact assessment, environmental and social management system, environmental and social management plan, occupational health & safety, and biodiversity management Plan and will refer to the relevant requirements as provided in the framework. The ESG and structured finance teams will be responsible for the monitoring of these risks, and the disposal and reallocation of proceeds, if necessary.

Furthermore, the company commits to engaging an independent third party to produce environmental and social risk monitoring reports annually, which will be delivered to the financiers.

Best practices identified

» The roles and responsibilities for project evaluation and selection are clearly defined and include relevant expertise

» There is evidence of continuity in the selection and evaluation process through the life of the financial instrument(s), including compliance verification and procedures to undertake mitigating actions when needed

» The process for project evaluation and selection is traceable

» Material environmental and social risks for most project categories are identified

» Presence of corrective measures to address environmental and social risks across projects

» ESG controversies are monitored

Management of proceeds

Not aligned | Partially aligned | Aligned | Best practices

Allocation and tracking of proceeds – BEST PRACTICES

Masdar has defined a clear process for the management and allocation of instruments proceeds in the framework. Net proceeds from instruments will be deposited in the general account but will be earmarked for allocation to eligible projects, which will be managed and overseen by the structured finance team. The company will ensure that the value of the projects in the green finance register exceeds or is at least equal to the net proceeds on a best effort basis. The company also commits to reaching full allocation within 24 months.

Management of unallocated proceeds – BEST PRACTICES

Unallocated proceeds will be invested in cash, cash equivalents or similar instruments, and will be managed in accordance with Masdar's corporate liquidity policy and the exclusion criteria. The exclusion criteria will ensure that the unallocated proceeds are not directed to greenhouse gas (GHG)-intensive or controversial activities. Furthermore, in case of the disposal of a project, the company commits to reallocating the proceeds to another eligible green project on a best effort basis within 24 months.

Best practices identified

- Broad disclosure of a clearly articulated and comprehensive management of proceeds policy to external stakeholders; bondholders or lenders at a minimum
- Short allocation period, for example typically less than 24 months
- Disclosure on temporary placement and presence of exclusion criteria toward environmentally or socially harmful activities
- Commitment to reallocate proceeds to projects that are compliant with the framework

Reporting

Not aligned | Partially aligned | Aligned | Best practices

Transparency of reporting – BEST PRACTICES

Masdar will publicly report on the allocation of proceeds and the environmental impacts of its eligible projects annually, and in case of any significant changes, until there is no green finance instrument outstanding. The selected reporting indicators, which will be at the category level, are clear, relevant and exhaustive. The reporting will also include significant developments, issues or controversies related to the projects, if any. To report on the environmental impacts, the company will use actual measurements, and should such an approach not be feasible, it will provide estimates and disclose the relevant calculation methodologies and key assumptions.

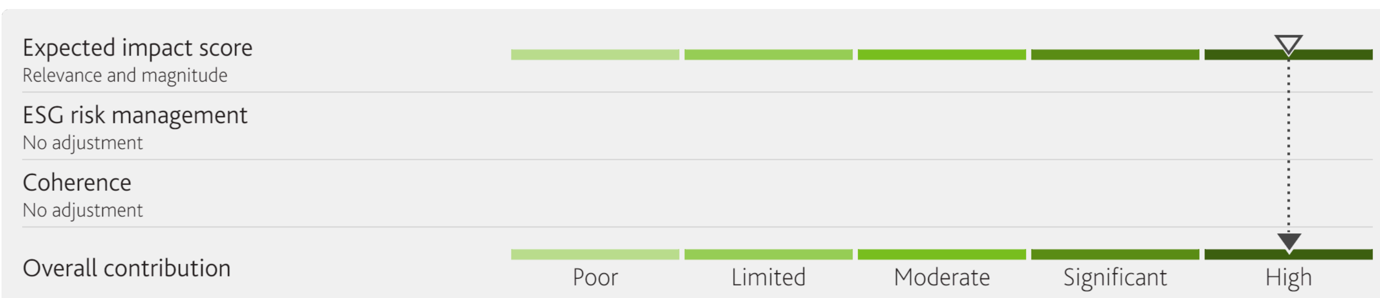
In addition, the company commits to engaging an independent auditor to verify the allocation and impact reports annually, and in case of significant developments, until the net proceeds are allocated in full to the green eligible projects, or until the green finance instrument is no longer outstanding, and later in case of any significant developments regarding the projects. For the maintenance of conformity with the existing Climate Bonds Standard (V4), Masdar will seek verification of its green finance instruments, where issuance is to be certified by the Climate Bond Initiative, at least annually during the same reporting timeframe.

Best practices identified

- Reporting until full instrument maturity or payback
- Reporting covers material developments and issues related to the projects or assets
- Reporting on allocation of proceeds and benefits done at least at eligible category level
- Exhaustive allocation reporting – balance or % of unallocated funds, types of temporary investments (e.g. cash or cash equivalent) and share of financing vs refinancing
- Clear and relevant indicators to report on the expected environmental impact of all the projects, where feasible, or eligible categories
- Disclosure of reporting methodology and calculation assumptions to bondholders or lenders at a minimum
- Independent audit of the tracking and allocation of funds at least until full allocation and in case of material changes
- Independent impact assessment on environmental benefits by a qualified third-party reviewer at least until full allocation and in case of material changes

Contribution to sustainability

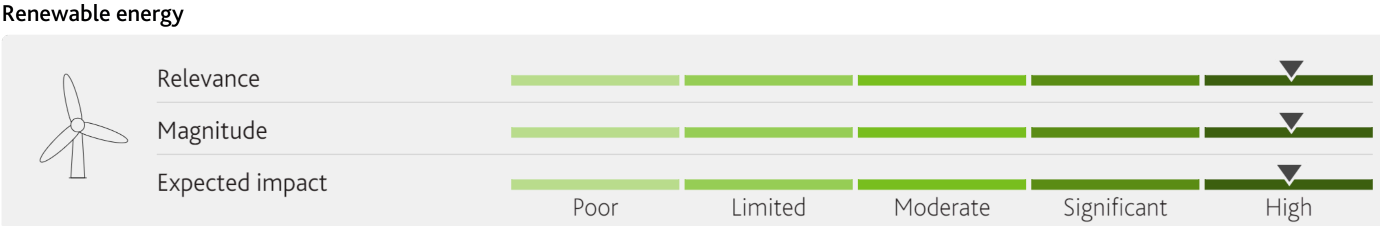
The framework demonstrates a high overall contribution to sustainability.



Expected impact

The expected impact of the eligible project categories on the environmental objectives is high. A detailed assessment by eligible category is provided below.

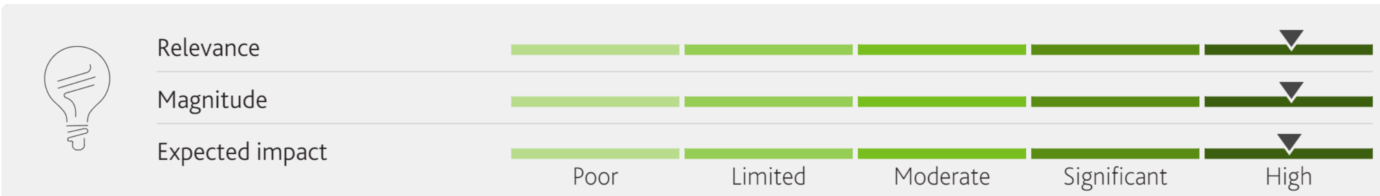
Renewable energy



Under its framework, Masdar is planning to finance renewable energy projects, including solar power, wind power, and the transmission and distribution of electricity. The expansion of renewable energy capacity is essential and highly relevant at the global level to reduce global GHG emissions stemming from electricity generation, buildings, industrial and transportation activities. Notwithstanding Masdar's global operations, it is also important in the context of the UAE, where 99% of the energy was from fossil fuels in 2020 [2] .

In addition, the category is likely to have high magnitude by enabling the reduction the GHG emissions from electricity production by the increase of renewable energy installed capacities. In addition, to ensure that the best available technology is adopted, the company intends to follow the technical screening criteria for substantial contribution to climate change mitigation specified under the EU taxonomy, which is one of the most stringent taxonomies currently available. Furthermore, the company has rigorous environmental and social risk management plans in place, covering both the construction and operational phases, and including preventive and corrective measures to ensure that potential negative externalities are minimized.

Energy efficiency



Masdar also plans to finance energy efficiency projects, which include energy storage facilities (batteries) as defined in the EU taxonomy under section 4.10 "Storage of electricity." This eligible category is highly relevant because energy storage systems are likely to play a crucial role in providing flexibility and reliability in non-dispatchable renewable energy-dominated electricity systems.

In addition, the category is likely to have a high magnitude, allowing a higher penetration of additional renewable energy capacities by installing storage capacities that cope with their variability, while contributing to a more stable electric system. Similar to the renewable energy category, the company intends to follow the EU taxonomy's substantial contribution criteria while ensuring that negative externalities are minimized through internal risk management plans.

ESG risk management

We have not applied a negative adjustment for ESG risk management to the expected impact score. Each project is required to comply with Masdar's environmental and social requirements that refer to international standards, such as the Equator Principles, International Finance Corporation (IFC) Performance Standards, and IFC General Environmental Health and Safety Guidelines. These requirements typically oblige Masdar's projects to develop and implement, for example, an Environment and Social Impact Assessment, including an Environmental & Social Management and Monitoring Plan, an Environmental and Social Management System, and an Environmental and Social Management Plan that covers both construction and operations. These plans cover a wide variety of ESG risks, which include but are not limited to biodiversity protection; human rights protection, including the prevention of modern slavery, and health and safety of workers; and waste and wastewater management.

Coherence

We have not applied a negative adjustment for coherence to the expected impact score. The projects to be financed under the framework align with the sustainability priorities of Masdar, which focuses on investments in clean energy.

While the UAE is heavily reliant on fossil fuels for its energy production and economy, Masdar helps the country diversify its economy and supports its decarbonization strategy, which includes achieving net zero emissions by 2050[3].

Appendix 1 - Mapping eligible categories to the United Nations' Sustainable Development Goals

The two eligible categories included in Masdar's framework are likely to contribute to two of the United Nations' SDGs, namely:

UN SDG 17 Goals	Eligible Category	SDG Targets
GOAL 7: Affordable and Clean Energy	Renewable Energy Energy Efficiency	7.2: Increase substantially the share of renewable energy in the global energy mix
GOAL 13: Climate Action	Renewable Energy Energy Efficiency	13.1: Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries

The mapping of the United Nations' SDGs in this SPO considers the eligible project categories and associated sustainability objectives/ benefits documented in the company's financing framework, as well as the resources and guidelines from public institutions, such as the ICMA's SDG Mapping Guidance and the UN's SDG targets and indicators.

Appendix 2 - Summary of eligible categories in Masdar's framework

Eligible Category	Sub-Category	Description	Sustainability Objectives	Impact Reporting Metrics
Renewable Energy	Solar Power	Investments, development, construction, installation, operation and maintenance of facilities: - Photovoltaic plants - Floating photovoltaic - Concentrated solar power	Climate Change Mitigation	- Renewable energy capacity installed in MW - Annual GHG emissions avoided in tonnes of CO2 equivalent - Annual renewable energy generated (or estimated) in MWh - Capacity of renewable energy plant(s) to be served by transmission systems (MW)
	Wind Power	Investments, development, construction, installation, operation and maintenance of facilities: - Onshore projects - Offshore projects including floating wind turbines		
	Transmission and Distribution of Electricity	Investments, development, construction, installation, operation and maintenance of electric power transmission and distribution network infrastructure devoted to directly connecting generation plants from renewable sources - solar power and/or wind power – to the transmission grid		
Energy Efficiency	Energy Storage	Investments, development, construction, installation, operation and maintenance of facilities – being a dedicated connection to solar and/or wind plant – that store electricity and return it at a later time in the form of electricity (aiming at promoting the development of renewable energies and/or replacing peak electricity produced by less environmentally friendly units)	Climate Change Mitigation	- Storage capacity developed in MW - Annual GHG emissions avoided in tonnes of CO2 equivalent - Annual energy savings (or estimated) in Mwh

Moody's related publications

Second Party Opinion analytical framework:

» Framework to Provide Second Party Opinions on Sustainable Debt, October 2022

Topic page:

» ESG Credit and Sustainable Finance

Endnotes

1 Masdar Renewables Projects.

2 United Arab Emirates' total energy supply by source.

3 The UAE's response to climate change, 7 December 2022.

Moody's assigns SPOs in alignment with the main tenets of the ICMA Guidelines for Green, Social, Sustainability and Sustainability-Linked Bonds External Reviews and the LSTA/LMA/APLMA Guidance for Green, Social and Sustainability-Linked Loans External Reviews, as applicable; Moody's practices may however diverge in some respects from the practices recommended in those documents. Moody's approach to assigning SPOs is described in its Assessment Framework, and is subject to the ethical and professional principles set forth in the Moody's Investors Service Code of Professional Conduct.

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REPORT NUMBER 1369209