



Second-Party Opinion
**National Central Cooling Company
 Green Financing Framework**

Evaluation Summary

Sustainalytics is of the opinion that the National Central Cooling Company (“Tabreed”) Green Financing Framework is credible, impactful and aligns with the four core components of the Green Bond Principles 2021 and the Green Loan Principles 2021. This assessment is based on the following:



USE OF PROCEEDS The eligible categories for the use of proceeds – Energy Efficiency, Sustainable Water and Wastewater Management, Green Buildings and Renewable Energy – are aligned with those recognized by the Green Bond Principles and the Green Loan Principles. Sustainalytics considers that investments in the eligible categories will lead to positive environmental impacts and advance the UN Sustainable Development Goals, specifically SDG 6, 7, 9 and 12.



PROJECT EVALUATION / SELECTION Tabreed’s Green Finance Group (GFG) will oversee the internal process for evaluating and selecting projects, including reviewing, assessing and selecting all projects presented to its Investment Committee, in accordance with eligibility criteria. Sustainalytics considers the project selection process in line with market practice.



MANAGEMENT OF PROCEEDS Tabreed’s GFG will also oversee the management of proceeds, which will track allocation to eligible assets using an internal register. Unallocated proceeds will be held in line with Tabreed’s general liquidity guidelines. This process is in line with market practice.



REPORTING Tabreed intends to report on allocation of proceeds on its website on an annual basis until full allocation. Allocation reporting will include the amount allocated, a breakdown by project category, a breakdown by project location or geography, share of financing versus refinancing, and the balance of unallocated proceeds. In addition, Tabreed is committed to reporting on relevant impact metrics. Sustainalytics views Tabreed’s allocation and impact reporting as aligned with market practice.

Evaluation date August 25, 2021

Issuer Location Khalifa City, UAE

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For inquiries, contact the Sustainable Finance Solutions project team:

Evan Bruner (Amsterdam)
 Project Manager
 evan.bruner@sustainalytics.com
 (+31) 20 205 0027

Cristhian Veintimilla (Amsterdam)
 Project Support

Lea Muething (London)
 Project Support

Aishwarya Ramchandran (Toronto)
 aishwarya.ramchandran@morningstar.com

Enrico Tessadro (Amsterdam)
 Client Relations
 susfinance.emea@sustainalytics.com
 (+44) 20 3880 0193

Introduction

National Central Cooling Company PJSC (“Tabreed”, the “Issuer” or the “Company”) is a regional utilities provider operating across the Gulf Cooperation Council (GCC) region. Established in 1998 and headquartered in Khalifa City, Abu Dhabi, UAE, Tabreed has 929 employees operating and maintaining 86 district cooling plants. Tabreed also constructs secondary networks, manufactures pre-insulated pipes, provides designs and supervises consultancy.

Tabreed has developed the National Central Cooling Company Green Financing Framework (the “Framework”) under which it intends to issue green bonds, loans and sukuk (collectively the “Green Financing Instruments”), and use the proceeds to finance or refinance, in whole or in part, eligible green projects that are expected to minimize the environmental impact of the Company’s assets and processes used for district cooling. The Framework defines eligibility criteria in four areas:

1. Energy Efficiency
2. Sustainable Water and Wastewater Management
3. Green Buildings
4. Renewable Energy

Tabreed engaged Sustainalytics to review the National Central Cooling Company Green Financing Framework, dated August 2021, and provide a Second-Party Opinion on the Framework’s environmental credentials and its alignment with the Green Bond Principles 2021 (GBP)¹ and the Green Loan Principles 2021 (GLP).² The Framework has been published in a separate document.³

Scope of work and limitations of Sustainalytics’ Second-Party Opinion

Sustainalytics’ Second-Party Opinion reflects Sustainalytics’ independent⁴ opinion on the alignment of the reviewed Framework with the current market standards and the extent to which the eligible project categories are credible and impactful.

As part of the Second-Party Opinion, Sustainalytics assessed the following:

- The Framework’s alignment with the Green Bond Principles 2021, as administered by ICMA, and the Green Loan Principles 2021, as administered by LMA, APLMA and LSTA⁵;
- The credibility and anticipated positive impacts of the use of proceeds; and
- The alignment of the issuer’s sustainability strategy and performance and sustainability risk management in relation to the use of proceeds.

For the use of proceeds assessment, Sustainalytics relied on its internal taxonomy, version 1.9.2, which is informed by market practice and Sustainalytics’ expertise as an ESG research provider.

As part of this engagement, Sustainalytics held conversations with various members of Tabreed’s management team to understand the sustainability impact of their business processes and planned use of proceeds, as well as management of proceeds and reporting aspects of the Framework. Tabreed representatives have confirmed that: (1) they understand it is the sole responsibility of Tabreed to ensure that the information provided is complete, accurate and up to date; (2) that they have provided Sustainalytics with all relevant information, and (3) that any provided material information has been duly disclosed in a timely manner. Sustainalytics also reviewed relevant public documents and non-public information.

This document contains Sustainalytics’ opinion of the Framework and should be read in conjunction with that Framework.

¹ The Green Bond Principles are administered by the International Capital Market Association and are available at <https://www.icmagroup.org/green-social-and-sustainability-bonds/green-bond-principles-gbp/>.

² The Green Loan Principles are administered by the Loan Market Association, Asia Pacific Loan Market Association and Loan Syndications and Trading Association and are available at <https://www.lsta.org/content/green-loan-principles/>

³ The Tabreed Green Financing Framework is available on National Central Cooling Company PJSC’s website at: <https://www.tabreed.ae/investor-relations/>

⁴ When operating multiple lines of business that serve a variety of client types, objective research is a cornerstone of Sustainalytics and ensuring analyst independence is paramount to producing objective, actionable research. Sustainalytics has therefore put in place a robust conflict management framework that specifically addresses the need for analyst independence, consistency of process, structural separation of commercial and research (and engagement) teams, data protection and systems separation. Last but not the least, analyst compensation is not directly tied to specific commercial outcomes. One of Sustainalytics’ hallmarks is integrity, another is transparency.

⁵ In addition to the Loan Markets Association, the GLP are also administered by the Asia Pacific Loan Market Association and the Loan Syndications and Trading Association

Any update of the present Second-Party Opinion will be conducted according to the agreed engagement conditions between Sustainalytics and Tabreed.

Sustainalytics' Second-Party Opinion, while reflecting on the alignment of the Framework with market standards, is no guarantee of alignment nor warrants any alignment with future versions of relevant market standards. Furthermore, Sustainalytics' Second-Party Opinion addresses the anticipated impacts of eligible projects expected to be financed with proceeds from the Green Financing Instruments but does not measure the actual impact. The measurement and reporting of the impact achieved through projects financed under the Framework is the responsibility of the Framework owner.

In addition, the Second-Party Opinion opines on the potential allocation of proceeds but does not guarantee the realized allocation of such proceeds towards eligible activities.

No information provided by Sustainalytics under the present Second-Party Opinion shall be considered as being a statement, representation, warrant or argument, either in favour or against, the truthfulness, reliability or completeness of any facts or statements and related surrounding circumstances that Tabreed has made available to Sustainalytics for the purpose of this Second-Party Opinion.

Sustainalytics' Opinion

Section 1: Sustainalytics' Opinion on the National Central Cooling Company Green Financing Framework

Sustainalytics is of the opinion that the Framework is credible, impactful and aligns with the four core components of the GBP and GLP. Sustainalytics highlights the following elements of the Framework:

- Use of Proceeds:
 - The eligible categories – (i) Energy Efficiency, (ii) Sustainable Water and Wastewater Management, (iii) Green Buildings, and (iv) Renewable Energy – are aligned with those recognized by the GBP and GLP. Sustainalytics is of the opinion that the projects financed will deliver positive environmental outcomes and views these expenditures as having the potential to improve the energy and water efficiency of cooling solutions. The Company confirmed that the majority of projects financed will be located in the United Arab Emirates (UAE).
 - Tabreed has established a look-back period of 36 months from the initial date of each green financing instrument (GFI) transaction, which Sustainalytics considers to be in line with market practice.
 - Under the Energy Efficiency category, the Company may finance and refinance district cooling projects, including the construction of new plants, for existing and new buildings, as well as the acquisition of existing district cooling assets. Additionally, Tabreed will finance expenditures intended to improve operational energy efficiency of district cooling assets and corporate offices by at least 20%. Examples of eligible corporate office expenditures include using LED lights and smart sensors. Sustainalytics views positively the Framework's inclusion of a defined energy efficiency improvement threshold. District cooling projects use significantly less energy compared to other forms of cooling. See Section 3 for additional information on the benefits of district cooling.
 - Tabreed confirmed that the projects to be financed include both cooling generation and distribution powered by electricity sourced from the local grid.
 - Sustainalytics notes that district cooling network systems primarily powered by renewables are preferred in the market, however, Sustainalytics recognizes the importance of improving energy efficiency of air conditioning systems. This is especially the case in the geographic location of the projects, where high energy consumption for cooling systems is common. Sustainalytics encourages Tabreed to report on the impact achieved. See Section 3 for additional information on the impacts and benefits of district cooling.
 - Under the Sustainable Water and Wastewater Management category, Tabreed may finance and refinance:

- Investments, upgrades, maintenance of infrastructure and water systems which lead to a minimum 20% increase in water efficiency. Sustainalytics notes positively the threshold of at least 20% increase in water efficiency.
 - Infrastructure and systems that reduce freshwater consumption, such as replacing fresh water with treated sewage effluent⁶ or seawater in the district cooling assets. Eligible expenditures include upgrades to current plants and networks as well as expansions. Sustainalytics views positively investments which lead to reduced freshwater consumption.
- Within the Green Buildings category the Company intends to invest in new or existing buildings which have achieved or are expected to achieve one of the following minimum certifications: (i) LEED Gold or (ii) Estidama Pearl Rating System 3-Pearls with a minimum 20% improvement in energy performance over ASHRAE 90.1 2007. Sustainalytics has conducted an evaluation of these schemes and considers the minimum levels aligned with market practice For Sustainalytics' assessment of each certification scheme, see Appendix 1.
- Under the Renewable Energy category, the Company may finance and refinance expenditures related to research and development, construction, operation and transmission of energy from renewable energy sources including solar PV and geothermal facilities with a direct emissions intensity equal to or below 100 gCO₂/kWh. Sustainalytics considers this threshold to be in line with market practice. Regarding research and development expenditures, the Issuer has confirmed that projects are in advanced stage development and Tabreed does not expect the expenditures to exceed 10% of total net proceeds raised from the bond issuance. Sustainalytics encourages the Company to prioritize R&D investments that have reasonable assurance of implementation and can achieve measurable impact in the near-term.
- Project Evaluation and Selection:
 - Tabreed's GFG will oversee the internal process for evaluating and selecting eligible assets. the GFG is chaired by the Company's CFO and includes representatives from the following departments: finance and treasury, operations, asset management, business development, and legal and compliance. The GFG will review and assess all projects presented to Tabreed's Investment Committee, in accordance with the predetermined eligibility criteria set out in the Framework.
 - The GFG is also in charge of ensuring all projects have been assessed from an environmental and social risk standpoint. This is in line with the Company's HSE policies, which apply to all allocation decisions made under the Framework. Sustainalytics considers these environmental and social risk management systems to be adequate and aligned with market expectation. For additional detail, see Section 2.
 - Based on these elements, Sustainalytics considers this process to be in line with market practice.
- Management of Proceeds:
 - Tabreed's GFG will oversee the management of proceeds process. The Company will create a green finance register to track the allocation of bond proceeds. Unallocated proceeds will be held in line with Tabreed's general liquidity guidelines. The Company intends to allocate proceeds within 36 months of their respective issuance.
 - Based on these elements, Sustainalytics considers this process to be in line with market practice.
- Reporting:
 - Tabreed has committed to reporting on the allocation of proceeds and their impact on an annual basis until full allocation. Allocation reporting will be available on the Company's website and will include information on the amount allocated, a breakdown by project category, a breakdown by project location or geography, share of financing versus refinancing and the balance of unallocated proceeds.
 - Impact reporting will also be made available on the website and will include relevant impact indicators, such as amount of energy saved (rate of reduction and MWh), rate of savings or reduction in water use and the eventual green building certifications obtained. For a full list of impact indicators, please refer to Appendix 2.

⁶ Treated sewage effluent recycles sewage water which would otherwise be discharged into the environment and therefore replaces potable water. Using it can lead to up to 35% water reduction over conventional potable water systems, since it is more cost effective and consumes less energy when compared to grid water.

- Based on these elements, Sustainalytics considers this process to be in line with market practice.

Alignment with Green Bond Principles 2021 and Green Loan Principles 2021

Sustainalytics has determined that the National Central Cooling Company Green Financing Framework aligns with the four core components of the GBP and GLP. For detailed information, please refer to Appendix 2.

Section 2: Sustainability Strategy of Tabreed

Contribution of framework to Tabreed's sustainability strategy

Tabreed demonstrates a commitment to incorporating sustainability within its operations by focusing on four key environmental areas: (i) energy efficiency through increasing operational efficiencies, (ii) effectively using alternative water sources to reduce potable water consumption, (iii) ensuring compliance with standards and regulations for CO₂ and other emissions, and (iv) ensuring proper disposal of hazardous waste.⁷

Regarding energy efficiency, Tabreed has implemented innovative solutions to improve operational efficiencies, including regular monitoring and using thermal energy storage (TES) systems to meet energy demands. TES systems stores chilled water for use when demand for cooling rises. Peak demand loads required to generate cooling are shifted to off-peak by using the stored water on demand, therefore sparing additional energy production and reducing energy consumption.⁷ By 2020, these solutions improved Tabreed's energy efficiency by 5%.

In terms of effective water use, Tabreed has implemented processes, such as using treated sewage effluent (TSE) and seawater as alternatives to reduce consumption of potable water.⁸ TSE, for example, recycles sewage water, thus replacing potable water and reducing energy consumption.⁷ As a result, the Company achieved a 3% decrease in water consumption between 2017 and 2019.⁷ Additionally, the Company's plant in Bahrain saved more than 680 million liters of freshwater by using seawater as an alternative to potable water.⁷

Tabreed aims to reduce emissions within its operations and ensure that emission levels meet international best practices by reducing energy consumption through operational efficiencies and external monitoring. For example, Tabreed commissioned Intertek, a third-party organization, to conduct semi-annual stack emissions monitoring of its engine generators for CO₂ and other greenhouse gases.⁷ By 2020, the Company reduced energy consumption by 2.26 billion KWh in the GCC region,⁹ resulting in a reduction of CO₂ emissions by 1.35 million tonnes.^{7,10}

The Company is taking steps to appropriately manage hazardous waste from the plants it operates to prevent environmental degradation. Tabreed has engaged environmental services providers to collect, load and transport hazardous used oil, batteries, empty chemical cans and oil drums.⁷

Sustainalytics is of the opinion that the Framework is aligned with the Company's overall sustainability strategy and initiatives and will further the Company's actions on its key environmental priorities. Sustainalytics encourages Tabreed to develop timebound quantitative targets for its sustainability efforts.

Well positioned to address common environmental and social risks associated with the projects

Sustainalytics recognizes that the net proceeds from the Green Financing Instruments issued under the Framework will be directed towards eligible projects that are expected to have positive environmental impact. However, Sustainalytics is also aware that such eligible projects could lead to negative environmental and social outcomes. Some key environmental and social risks associated with the eligible projects could include adverse impacts to occupational health and safety, community relations and stakeholder participation, land use and biodiversity issues associated with large-scale infrastructure development and emissions, effluents and waste generated in construction.

Sustainalytics is of the opinion that Tabreed is able to manage or mitigate potential risks through implementation of the following:

- Tabreed is committed to protecting the health and safety of its workforce and stakeholders affected by its operations. The Company has implemented a health, safety and environment (HSE)

⁷ Tabreed, "2019-2020 Annual ESG Report", (2021), at: <https://www.tabreed.ae/wp-content/uploads/2021/03/FINAL-ESG-2020.pdf>

⁸ Tabreed, "Sustainability", at: <https://www.tabreed.ae/sustainability/>

⁹ Gulf Cooperation Council, "About GCC – Organizational Structure", at: <https://www.gcc-sg.org/en-us/AboutGCC/Pages/StartingPointsAndGoals.aspx>

¹⁰ Tabreed, "Tabreed eliminates over 1.35 million metric tons of CO₂ emissions in 2020", (2021), at: <https://www.tabreed.ae/news/tabreed-eliminates-1-35-million-metric-tons-co2-emissions-2020/>

management system to address health, safety, and environmental issues for all personnel working at plants, head offices, project sites, subsidiaries and joint ventures.⁷ All Tabreed suppliers are required to comply with the Company's HSE policies.¹¹ Tabreed has also obtained group-level ISO 45001:2018 occupational health and safety (OHS) management systems certification, which demonstrates that it provides safe and healthy workplaces by preventing work-related injuries and sicknesses, eliminates hazards and risks, and proactively improves on its OHS performance.⁷

- Tabreed has implemented an integrated management system (IMS) policy to manage and mitigate health and safety, environmental, quality and energy management risks. The IMS policy focuses on addressing the expectations of the Company's various stakeholders such as employees, contractors, customers, suppliers, business partners and the communities in which Tabreed operates.⁷
- To manage biodiversity and land use risks, Tabreed has created and implemented the Go Green programme for stakeholders at project sites, which is an initiative aimed at reducing resource consumption and integrate waste reduction in all activities.⁷
- To manage emissions arising from district cooling assets, Intertek conducts periodic audits and annual reviews of Tabreed's plants and facilities, corporate headquarters and management policies and procedures. Intertek has provided certification on ISO 14001:2015 for Tabreed's environmental practices. ⁷The certification is committed to reducing negative environmental impacts through climate change mitigation and adaptation.¹²
- To manage the risk of effluents and waste generated during the construction of district cooling assets, Tabreed ensures operations comply with local standards and regulations. For hazardous waste, Tabreed uses environmental services providers which are aligned to the Centre of Waste Management Abu Dhabi.⁷ Tabreed's management of trade effluent, the wastewater produced during industrial activities and discharged into a sewage system, complies with Abu Dhabi's Trade Effluent Control Regulations 2010 and has received consent approval for trade effluent discharge to ensure the sustainable management of wastewater.^{7,13} In addition, Tabreed has outlined procedures for the management of hazardous chemicals within the HSE management system.⁷

Based on these policies, standards and assessments, Sustainalytics is of the opinion that Tabreed has implemented adequate measures and is well positioned to manage and mitigate environmental and social risks commonly associated with the eligible categories.

Section 3: Impact of Use of Proceeds

All four use of proceeds categories are aligned with those recognized by the GBP and GLP. Sustainalytics has focused on two below where the impact is specifically relevant in the local context.

Importance of energy-efficient cooling in the UAE

Due to the region's climate, buildings and industry in the Middle East require extensive use of air conditioning and cooling. Summer temperatures in the Gulf region, for example, often exceed 45°C, which combined with relative high humidity, leads to extensive commercial and residential use of air-conditioning.¹⁴ According to the World Bank, the amount of energy used to cool spaces in the Middle East has increased fivefold between 1990 and 2016, a trend that is expected to continue given that rising temperatures driven by climate change contribute to further increase energy consumption in the region.¹⁵ The UAE specifically spends a significant amount of energy and financial resources on cooling systems for living and workspace environments.¹⁶ Cooling systems alone represent 80% of the electricity demand from buildings in the country, where cooling demand is expected to increase by 22.2% by 2050 and 40% by 2080.¹⁷

To achieve its national-level commitment aligned with global pledges of limiting global warming to less than 2°C, the UAE has developed different strategies to address climate-related challenges. These include the UAE

¹¹ Tabreed, "Supplier Code of Conduct", (2021), at: <https://www.tabreed.ae/wp-content/uploads/2021/04/Supplier-Code-of-Conduct.pdf>

¹² International Organization for Standardization sub-committee, "Climate Change – how ISO 14001 helps including with adaptation", (2016), at: <https://committee.iso.org/sites/tc207sc1/home/projects/ongoing/supporting-environmental-and-bus/climate-change-and-iso-1.html>

¹³ Government of Abu Dhabi, "Trade Effluent Control Regulations 2010 (WA-721)", (2010), at: <https://jawdah.qcc.abudhabi.ae/en/Registration/QCCServices/Services/STD/ISGL/ISGL-LIST/WA-721.pdf>

¹⁴ booz&co., "Unlocking the Potential of District Cooling – The Need for GCC Governments to Take Action", at: <http://docshare04.docshare.tips/files/24055/240556701.pdf>

¹⁵ The National News, "Working from home could create surge in Gulf's AC bills and emissions", at: <https://www.thenationalnews.com/uae/environment/working-from-home-could-create-surge-in-gulf-s-ac-bills-and-emissions-1.1077001>

¹⁶ GGGI, "Green growth in the UAE; a growing oasis of sustainable development", at: <https://gggi.org/green-growth-in-the-uae-a-growing-oasis-of-sustainable-development/>

¹⁷ Shanks, K. et al. (2013), "Impacts of climate change on building cooling demands in the UAE", Heriot-Watt University, at: https://www.researchgate.net/publication/268603745_Impacts_of_climate_change_on_building_cooling_demands_in_the_UAE

Vision 2021, UAE Green Agenda 2015-2030 and the UAE Energy Strategy 2050, which seek to increase energy efficiency of individuals and corporates by 40%.¹⁸ In efforts to achieve a green economy, the UAE's preferred alternative to conventional air conditioning is adopting district cooling systems.¹⁹

As opposed to conventional decentralised solutions, district cooling is a centralized network based system which is able to provide air conditioning to multiple buildings at once. Such systems are generally far more efficient than conventional cooling and therefore have the potential to reduce cooling-related energy consumption.²⁰ District cooling systems generally offer three main benefits, namely a low-energy requirement (normally using 50% less energy than conventional systems¹⁹, in addition to more efficient capacity use and peak-period saving potential.

Use of district cooling in the UAE has been rising since the commissioning of the first district cooling scheme in 1999.²¹ Total installed district cooling represented around 10% of the UAE's total air conditioning market by 2017.²¹ In the entire Gulf region, the GCC estimates that district cooling has the potential to provide for approximately 30% of the cooling needs by 2030, which would also prevent the region from having to build 20 GW in new electricity-generating capacity, consequently saving 200,000 barrels of oil equivalent per day in fuel.¹⁴

Based on the context of addressing an increasing demand for energy efficient cooling, Sustainalytics considers that Tabreed's investments in energy efficient district cooling are expected to provide environmental benefits and therefore contribute to the national commitments to development towards a low-carbon economy.²²

Importance of efficient water use in the UAE

One-quarter of the world's population lived in countries facing extremely high water stress as of 2019, according to the World Resources Institute²³. The UAE is amongst the top water scarce countries in the world combined with one of the highest per capita water consumptions.²⁴ In addition to the country's hot and arid geography, external factors, such as climate change, lead to frequent droughts, declining rainfalls and high evaporation rates.²⁵ Since the UAE has limited natural water resources, desalination is frequently used to make seawater potable,²⁶ which is then directed for cooling applications.

The UAE has put in place the Water Security Strategy 2036 aiming to ensure sustainable access to water during both normal and emergency conditions.²⁷ Reducing total demand for water resources is one of the Strategy's key objectives²⁸ together with sustainable methods to meet demand.²⁷ The country is also working to promote the use of treated sewage effluent in industrial processes,²⁷ and actively promotes the use of technology to improve water efficiency and help meet water security goals, including enabling its industries to manage and conserve water sustainably.²⁹

Sustainalytics is of the opinion that enhancing the water efficiency of district cooling plants and general water efficiency will help to combat water stress in the UAE and the wider GCC region. Tabreed is expected to reduce the amount of freshwater needed for parts of its operations by using treated sewage effluent and seawater, which also has the potential to lead to energy savings from avoiding desalination and other related processes.

¹⁸ The United Arab Emirates Government portal, at: <https://u.ae/en/about-the-uae/uae-future>

¹⁹ The United Arab Emirates Government portal, "Achieving zero flaring of oil and gas", at: <https://u.ae/en/information-and-services/environment-and-energy/the-green-economy-initiative/efforts-to-achieve-green-economy->

²⁰ Strategy&, "Energy efficiency in the UAE", at: <https://www.strategyand.pwc.com/m1/en/reports/energy-efficiency-in-the-uae.pdf>

²¹ Euroheat & Power, "District Energy in the United Arab Emirates", at: <https://www.euroheat.org/knowledge-hub/district-energy-united-arab-emirates/>

²² The World Bank, "Four Things You Should Know About Sustainable Cooling", at: <https://www.worldbank.org/en/news/feature/2019/05/23/four-things-you-should-know-about-sustainable-cooling>

²³ World Resources Institute, "RELEASE: Updated Global Water Risk Atlas Reveals Top Water-Stressed Countries and States", (2019), at: <https://www.wri.org/news/2019/08/release-updated-globalwater-risk-atlas-reveals-top-water-stressedcountries-and-states>

²⁴ EcoMENA, "Water Management in UAE", at: <https://www.ecomena.org/water-management-uae/>

²⁵ Reuters, "The Gulf companies innovating to reduce their dependence on desalination", at: <https://www.reutersevents.com/sustainability/gulf-companies-innovating-reduce-their-dependence-desalination>

²⁶ The United Arab Emirates Government portal, at: <https://u.ae/en/information-and-services/environment-and-energy/water-and-energy/water->

²⁷ MEED, "The threat of water scarcity", at: <https://www.meed.com/uae-water-security-strategy/>

²⁸ The United Arab Emirates Government portal, "The UAE Water Security Strategy 2036", at: <https://u.ae/en/about-the-uae/strategies-initiatives-and-awards/federal-governments-strategies-and-plans/the-uae-water-security-strategy-2036>

²⁹ International Trade Administration, "United Arab Emirates – Country Commercial Guide", at: <https://www.trade.gov/knowledge-product/united-arab-emirates-water>

Alignment with and contribution to SDGs

The Sustainable Development Goals (SDGs) were set in September 2015 by the United Nations General Assembly and form an agenda for achieving sustainable development by the year 2030. The Green Financing Instruments eventually issued under the Framework may advance the following SDGs and targets:

Use of Proceeds Category	SDG	SDG target
Energy Efficiency	7. Affordable and Clean Energy 9. Industry, Innovation and Infrastructure	7.3 By 2030, double the global rate of improvement in energy efficiency 9.4 By 2030, upgrade infrastructure and retrofit industries to make them sustainable, with increased resource-use efficiency and greater adoption of clean and environmentally sound technologies and industrial processes, with all countries taking action in accordance with their respective capabilities
Sustainable Water and Wastewater Management	6. Clean water and sanitation 12. Responsible consumption and production	6.3 By 2030, improve water quality by reducing pollution, eliminating dumping and minimizing release of hazardous chemicals and materials, halving the proportion of untreated wastewater and substantially increasing recycling and safe reuse globally 6.4 By 2030, substantially increase water-use efficiency across all sectors and ensure sustainable withdrawals and supply of freshwater to address water scarcity and substantially reduce the number of people suffering from water scarcity 12.2 By 2030, achieve the sustainable management and efficient use of natural resources
Green Buildings	9. Industry, innovation and infrastructure	9.4 By 2030, upgrade infrastructure and retrofit industries to make them sustainable, with increased resource-use efficiency and greater adoption of clean and environmentally sound technologies and industrial processes, with all countries taking action in accordance with their respective capabilities
Renewable Energy	7. Affordable and Clean Energy	7.2 By 2030, increase substantially the share of renewable energy in the global energy mix

Conclusion



Tabreed has developed the National Central Cooling Company Green Financing Framework, under which it may issue green bonds and loans, and use the proceeds to finance district cooling solutions, green buildings and renewable energy projects. Sustainalytics considers that the projects funded by those proceeds are expected to provide positive environmental impact.

The National Central Cooling Company Green Financing Framework outlines a process by which proceeds will be tracked, allocated and managed, and commitments have been made for reporting on the allocation and impact of the use of proceeds. Furthermore, Sustainalytics believes that the National Central Cooling Company Green Financing Framework is aligned with the overall sustainability strategy of the company and that the use of proceeds categories will contribute to advance the UN Sustainable Development Goals 6, 7, 9 and 12. Additionally, Sustainalytics is of the opinion that Tabreed has adequate measures to identify, manage and mitigate environmental and social risks commonly associated with the eligible projects funded by the use of proceeds.

Based on the above, Sustainalytics is confident that Tabreed is well positioned to issue Green Financing Instruments and that the National Central Cooling Company Green Financing Framework is robust, transparent and in alignment with the four core components of the Green Bond Principles 2021 and Green Loan Principles 2021.

Appendices

Appendix 1: Green Buildings Assessment

	LEED	Estidama Pearl Building Rating System
Background	Leadership in Energy and Environmental Design (LEED) is a US Certification System for residential and commercial buildings used worldwide. LEED was developed by the non-profit U.S. Green Building Council (USGBC)	Developed by the Abu Dhabi Department of Urban Planning and Municipalities (DPM), formerly known as Abu Dhabi Urban Planning Council (UPC), in the United Arab Emirates
Certification levels	<ul style="list-style-type: none"> • Certified • Silver • Gold • Platinum 	<ul style="list-style-type: none"> • 1 - 5 Pearls (5 is the highest level)
Areas of Assessment	<ul style="list-style-type: none"> • Energy and atmosphere • Sustainable Sites • Location and Transportation • Materials and resources • Water efficiency • Indoor environmental quality • Innovation in Design • Regional Priority 	<ul style="list-style-type: none"> • Integrated Development • Natural Systems • Livable Buildings • Precious Water • Resourceful Energy • Stewarding Materials • Innovating Practice
Requirements	<p>Prerequisites independent of level of certification, and credits with associated points.</p> <p>These points are then added together to obtain the LEED level of certification</p> <p>There are several different rating systems within LEED. Each rating system is designed to apply to a specific sector (e.g. New Construction, Major Renovation, Core and Shell Development, Schools-/Retail-/Healthcare New Construction and Major Renovations, Existing Buildings: Operation and Maintenance).</p>	<p>Within each section there are both mandatory and optional credits and credit points are awarded for each optional credit achieved. To achieve a 1 Pearl rating, all the mandatory credit requirements must be met. To achieve a higher Pearl rating, all the mandatory credit requirements must be met along with a minimum number of credit points.</p> <p>The number of credit points available in each section determines the weighting of that section. Resourceful Energy and Precious Water have most credit points, reinforcing the critical issues associated with the areas.</p>
Performance display		
Qualitative Considerations	Widely recognized internationally, and strong assurance of overall quality.	Abu Dhabi mandated the Estidama Pearl Rating System in 2010. All new buildings must achieve a minimum of 1 Pearl rating. The programme is a key aspect of the "Abu Dhabi Vision 2030".

Appendix 2: Green Bond / Green Bond Programme - External Review Form

Section 1. Basic Information

Issuer name:	National Central Cooling Company PJSC (Tabreed)
Green Bond ISIN or Issuer Green Bond Framework Name, if applicable:	National Central Cooling Company Green Financing Framework
Review provider's name:	Sustainalytics
Completion date of this form:	August 25, 2021
Publication date of review publication:	

Section 2. Review overview

SCOPE OF REVIEW

The following may be used or adapted, where appropriate, to summarise the scope of the review.

The review assessed the following elements and confirmed their alignment with the GBP:

- | | |
|--|--|
| <input checked="" type="checkbox"/> Use of Proceeds | <input checked="" type="checkbox"/> Process for Project Evaluation and Selection |
| <input checked="" type="checkbox"/> Management of Proceeds | <input checked="" type="checkbox"/> Reporting |

ROLE(S) OF REVIEW PROVIDER

- | | |
|---|--|
| <input checked="" type="checkbox"/> Consultancy (incl. 2 nd opinion) | <input type="checkbox"/> Certification |
| <input type="checkbox"/> Verification | <input type="checkbox"/> Rating |
| <input type="checkbox"/> Other (<i>please specify</i>): | |

Note: In case of multiple reviews / different providers, please provide separate forms for each review.

EXECUTIVE SUMMARY OF REVIEW and/or LINK TO FULL REVIEW (*if applicable*)

Please refer to Evaluation Summary above.

Section 3. Detailed review

Reviewers are encouraged to provide the information below to the extent possible and use the comment section to explain the scope of their review.

1. USE OF PROCEEDS

Overall comment on section (*if applicable*):

The eligible categories for the use of proceeds – Energy Efficiency, Sustainable Water and Wastewater Management, Green Buildings and Renewable Energy – are aligned with those recognized by the Green Bond Principles and the Green Loan Principles. Sustainalytics considers that investments in the eligible categories will lead to positive environmental impacts and advance the UN Sustainable Development Goals, specifically SDG 6, 7, 9 and 12.

Use of proceeds categories as per GBP:

- | | |
|---|--|
| <input checked="" type="checkbox"/> Renewable energy | <input checked="" type="checkbox"/> Energy efficiency |
| <input type="checkbox"/> Pollution prevention and control | <input type="checkbox"/> Environmentally sustainable management of living natural resources and land use |
| <input type="checkbox"/> Terrestrial and aquatic biodiversity conservation | <input type="checkbox"/> Clean transportation |
| <input checked="" type="checkbox"/> Sustainable water and wastewater management | <input type="checkbox"/> Climate change adaptation |
| <input type="checkbox"/> Eco-efficient and/or circular economy adapted products, production technologies and processes | <input checked="" type="checkbox"/> Green buildings |
| <input type="checkbox"/> Unknown at issuance but currently expected to conform with GBP categories, or other eligible areas not yet stated in GBP | <input type="checkbox"/> Other (<i>please specify</i>): |

If applicable please specify the environmental taxonomy, if other than GBP:

2. PROCESS FOR PROJECT EVALUATION AND SELECTION

Overall comment on section (if applicable):

Tabreed's Green Finance Group (GFG) will oversee the internal process for evaluating and selecting projects, including reviewing, assessing and selecting all projects presented to its Investment Committee, in accordance with eligibility criteria. Sustainalytics considers the project selection process in line with market practice.

Evaluation and selection

- | | |
|--|--|
| <input checked="" type="checkbox"/> Credentials on the issuer's environmental sustainability objectives | <input checked="" type="checkbox"/> Documented process to determine that projects fit within defined categories |
| <input checked="" type="checkbox"/> Defined and transparent criteria for projects eligible for Green Bond proceeds | <input type="checkbox"/> Documented process to identify and manage potential ESG risks associated with the project |
| <input checked="" type="checkbox"/> Summary criteria for project evaluation and selection publicly available | <input type="checkbox"/> Other (<i>please specify</i>): |

Information on Responsibilities and Accountability

- Evaluation / Selection criteria subject to external advice or verification In-house assessment
- Other (please specify):

3. MANAGEMENT OF PROCEEDS

Overall comment on section (if applicable):

Tabreed's GFG will also oversee the management of proceeds, which will track allocation to eligible assets using an internal register. Unallocated proceeds will be held in line with Tabreed's general liquidity guidelines. This process is in line with market practice.

Tracking of proceeds:

- Green Bond proceeds segregated or tracked by the issuer in an appropriate manner
- Disclosure of intended types of temporary investment instruments for unallocated proceeds
- Other (please specify):

Additional disclosure:

- Allocations to future investments only Allocations to both existing and future investments
- Allocation to individual disbursements Allocation to a portfolio of disbursements
- Disclosure of portfolio balance of unallocated proceeds Other (please specify):

4. REPORTING

Overall comment on section (if applicable):

Tabreed intends to report on allocation of proceeds on its website on an annual basis until full allocation. Allocation reporting will include the amount allocated, a breakdown by project category, a breakdown by project location or geography, share of financing versus refinancing, and the balance of unallocated proceeds. In addition, Tabreed is committed to reporting on relevant impact metrics. Sustainalytics views Tabreed's allocation and impact reporting as aligned with market practice.

Use of proceeds reporting:

- Project-by-project On a project portfolio basis
- Linkage to individual bond(s) Other (please specify):

Information reported:

- | | |
|---|--|
| <input checked="" type="checkbox"/> Allocated amounts | <input type="checkbox"/> Green Bond financed share of total investment |
| <input type="checkbox"/> Other (<i>please specify</i>): | |

Frequency:

- | | |
|---|--------------------------------------|
| <input checked="" type="checkbox"/> Annual | <input type="checkbox"/> Semi-annual |
| <input type="checkbox"/> Other (<i>please specify</i>): | |

Impact reporting:

- | | |
|--|---|
| <input checked="" type="checkbox"/> Project-by-project | <input type="checkbox"/> On a project portfolio basis |
| <input type="checkbox"/> Linkage to individual bond(s) | <input type="checkbox"/> Other (<i>please specify</i>): |

Information reported (expected or ex-post):

- | | |
|---|--|
| <input checked="" type="checkbox"/> GHG Emissions / Savings | <input checked="" type="checkbox"/> Energy Savings |
| <input checked="" type="checkbox"/> Decrease in water use | <input type="checkbox"/> Other ESG indicators (<i>please specify</i>): |

Amount of energy saved (% and MWh), estimated amount of CO₂ emissions avoided/ reduced (tCO₂e), amount of water/ sewage water recycled (litres), savings/ reduction in water use (%), level of green building certification, estimated amount of CO₂ emissions avoided/ reduced (tCO₂e), amount of renewable energy capacity purchased or generated (MW), estimated amount of CO₂ emissions avoided/ reduced (tCO₂e)

Frequency

- | | |
|---|--------------------------------------|
| <input checked="" type="checkbox"/> Annual | <input type="checkbox"/> Semi-annual |
| <input type="checkbox"/> Other (<i>please specify</i>): | |

Means of Disclosure

- | | |
|--|---|
| <input type="checkbox"/> Information published in financial report | <input type="checkbox"/> Information published in sustainability report |
|--|---|

- Information published in ad hoc documents
- Other (please specify): Company website
- Reporting reviewed (if yes, please specify which parts of the reporting are subject to external review):

Where appropriate, please specify name and date of publication in the useful links section.

USEFUL LINKS (e.g. to review provider methodology or credentials, to issuer's documentation, etc.)

SPECIFY OTHER EXTERNAL REVIEWS AVAILABLE, IF APPROPRIATE

Type(s) of Review provided:

- Consultancy (incl. 2nd opinion)
- Certification
- Verification / Audit
- Rating
- Other (*please specify*):

Review provider(s):

Date of publication:

ABOUT ROLE(S) OF INDEPENDENT REVIEW PROVIDERS AS DEFINED BY THE GBP

- i. **Second-Party Opinion:** An institution with environmental expertise, that is independent from the issuer may issue a Second-Party Opinion. The institution should be independent from the issuer's adviser for its Green Bond framework, or appropriate procedures, such as information barriers, will have been implemented within the institution to ensure the independence of the Second-Party Opinion. It normally entails an assessment of the alignment with the Green Bond Principles. In particular, it can include an assessment of the issuer's overarching objectives, strategy, policy and/or processes relating to environmental sustainability, and an evaluation of the environmental features of the type of projects intended for the Use of Proceeds.
- ii. **Verification:** An issuer can obtain independent verification against a designated set of criteria, typically pertaining to business processes and/or environmental criteria. Verification may focus on alignment with internal or external standards or claims made by the issuer. Also, evaluation of the environmentally sustainable features of underlying assets may be termed verification and may reference external criteria. Assurance or attestation regarding an issuer's internal tracking method for use of proceeds, allocation of funds from Green Bond proceeds, statement of environmental impact or alignment of reporting with the GBP, may also be termed verification.
- iii. **Certification:** An issuer can have its Green Bond or associated Green Bond framework or Use of Proceeds certified against a recognised external green standard or label. A standard or label defines specific criteria, and alignment with such criteria is normally tested by qualified, accredited third parties, which may verify consistency with the certification criteria.
- iv. **Green Bond Scoring/Rating:** An issuer can have its Green Bond, associated Green Bond framework or a key feature such as Use of Proceeds evaluated or assessed by qualified third parties, such as specialised research providers or rating agencies, according to an established scoring/rating methodology. The output may include a focus on environmental performance data, the process relative to the GBP, or another benchmark, such as a 2-degree climate change scenario. Such scoring/rating is distinct from credit ratings, which may nonetheless reflect material environmental risks.

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