

Qatar National Bank Green Bond Impact Report 2026

(For Green Bond ISIN: XS3192254806)

September, 2026



Details

Prepared for:

Qatar National Bank (Q.P.S.C.)

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Introduction

Qatar National Bank (QNB) has commissioned South Pole to calculate the environmental impact of QNB's green bond, which was issued in September 2025 and matures in September 2030. This analysis is based on data provided by QNB.

The report assessed a diversified portfolio of assets/ projects financed under green bonds. The assessment covers five eligible use of proceeds categories:

- (1) Green buildings,
- (2) Renewable energy,
- (3) Clean transportation,
- (4) Sustainable water and wastewater management, and
- (5) Pollution prevention and control.

The report discloses the environmental impact associated with the green bond portfolio, based on a combination of reported annual data and, where necessary, estimated cumulative impacts over the bond's financing period. All calculations follow a transparent attribution approach, using either actual or assumed project operation periods, and are supported by documented methodologies and data sources.

There are four sections in this report, including

- Section 1 – Bond information
- Section 2 – Impact assessment
- Annex 1 – Acronyms and abbreviations
- Annex 2 – Basis of preparation

Section 1 – Bond Information

Table 1: Bond information

ISIN	Issuance date	Maturity date	Principal	Coupon rate
XS3192254806	September 2025	September 2030	EUR 750 Mn	3.00%

For more information relating to the green bond, please visit the [Sustainable Finance section](#) on QNB corporate website.

Section 2 – Impact assessment

Environmental impacts are reported on an annual basis, combining operational results (ex-post) with forward-looking estimations (ex-ante) through to the bond's maturity in September 2030. Under the ICMA Harmonised Framework for Impact Reporting (June 2026), ex-ante estimates are reported as the expected annual impact for a representative full year of operation once the project is fully operational. Cumulative impact represents the aggregate environmental benefits generated by the financed projects strictly during the 5-year bond term (September 2025 – September 2030).

Our impact methodology focuses on the environmental impact created during the operational phase of in-scope assets. The environmental impact associated with the construction phases is excluded unless explicitly stated. Please refer to Annex II for more information.

This report presents QNB's attributed environmental impact across two distinct timeframes:

1. Annual impact: estimated (ex-ante) and verified (ex-post) annual performance of financed assets, adjusted for QNB's financial attribution.
2. Cumulative impact: projected aggregate impact over the full 5-year bond financing period, running from issuance (September 2025) through maturity (September 2030).

Here is a summary of the impact associated with the green bond as of September 2026:

Table 2: Summary of total projects annualised impact and QNB's annualised impact contribution

Project category	Total projects impact (annualised)	QNB's impact contribution (annualised)
Green buildings	• 121,519 tCO ₂ e avoided emissions	• 24,195 tCO ₂ e avoided emissions 37.166 tCO ₂ e/mEUR invested
Renewable energy	• 80,587,463 tCO ₂ e avoided emissions	• 2,283,424 tCO ₂ e avoided emissions 28,190 tCO ₂ e/mEUR invested
Clean transportation	• 41.37 tCO ₂ e / EUR 1M / year <i>Metric based on the borrower's Sustainable Finance Framework for eligible projects.</i>	• 2,260 tCO ₂ e avoided emissions
Water and wastewater management	• 273 million cubic meters of wastewater treated • 237 million cubic meters of water reused	• 58 million cubic meters of wastewater treated • 52 million cubic meters of water reused
Pollution prevention and control	• 35,143 tons of waste diverted from waste-to-energy	• 23,965 tons of waste diverted from waste-to-energy

Cumulative impact across the bond period represents the sum of annual attributed impacts for active allocation years only. Following financing termination or facility settlement (e.g., Project 1 in February 2026), QNB’s attribution factor reduces to zero, and post-repayment impacts are neither claimed nor accumulated over the remaining tenure of the bond to prevent double counting.

Here is a summary of the impact associated with the green bond:

Table 3: Summary of QNB’s impact contribution over the bond period

Project category	QNB’s impact contribution over the bond period
Green buildings	● 56,158 tCO ₂ e avoided
Renewable energy	● 8,931,494 tCO ₂ e avoided
Clean transportation	● 11,300 tCO ₂ e avoided
Water and wastewater management	● 98 million cubic meters of wastewater treated ● 90 million cubic meters of water reused
Pollution prevention and control	● 119,825 tons of waste diverted from waste-to-energy

For the detailed environmental impact associated with different project categories, please refer to the individual section of our impact assessment (i.e. Section 2.1 green buildings, 2.2 renewable energy, 2.3 clean transportation, 2.4 sustainable water and wastewater management and 2.5 pollution prevention and control).

2.1 – Green buildings

The scope of the impact assessment for the QNB bond proceeds covers project financing for a portfolio of green building projects, with a total gross floor area of 1,281,023 square meters (m²). The portfolio encompasses green building projects spanning diverse geographical locations, including France, Germany, Ireland, Qatar, and the United Kingdom. The building portfolio contains projects currently under construction, hence their expected annual impact is evaluated.

The portfolio's green buildings hold various international and local certifications, including LEED, BREEAM, Haute Qualité Environnementale (HQE) in France, and the Global Sustainability Assessment System (GSAS) in Qatar, as well as Green PUE (Power Usage Effectiveness) Validation in Germany. Below is a detailed breakdown of the portfolio's green building certifications by region.

Table 4: Breakdown of QNB green building assets/ projects by region and type of building

Region	Types of building	Level of certifications	Total gross floor area (m ²)
Europe	Industrial	BREEAM - Excellent	1,281,023
Middle East	Hospitality	BREEAM - Outstanding	
	Mixed Use	BREEAM - Very Good	
	Commercial	Green PUE Validation	
	Residential	GSAS - 3-Star	
	Data Warehouse	GSAS - 4-Star	
	Hospital	GSAS - 5-Star	
		HQE - Excellent	
		HQE- Très Performant (Very Good)	
		LEED - Gold	
		LEED - Platinum	

Financing for green building certified assets/ projects can help achieve better efficiency in energy use, water management, and/or waste management in the building operations. Aligned with the eligible activities outlined in the QNB Group Sustainable Finance and Product Framework 2023¹, the use of bond proceeds contributed to the following UNSDGs:

SDG 11 – Sustainable Cities and Communities



SDG 12 – Responsible Consumption and Production



SDG 13 – Climate Action



¹ Source: <https://www.qnb.com/sites/qnb/qnbqatar/document/en/SustainableFinanceandProductFramework2022>

Table 5: Green buildings impact disclosure²

Total assets / projects impact							QNB's attributed impact contribution		
Building type	QNB's share of total financing (%) ³	Area (m ²)	Annualised energy consumption intensity (kWh/m ² /year)	Annualised water consumption intensity (L/m ² /year)	Construction waste diversion rate (%)	Annualised avoided emissions (tCO ₂ e/year)	Annualised avoided emissions (tCO ₂ e/year)	Avoided emissions over the bond period (tCO ₂ e, ex-ante estimate) ⁴	Avoided emissions over the bond period (tCO ₂ e, ex-post estimate) ⁵
Industrial	7%-26%	378,884	3,900	101	91%	94,557	8,045	12,567	2,869
Hospitality	11%-100%	251,225	696	1,579	81%	5,100	1,071	4,732	3,403
Mixed Use	49%-100%	55,130	482	1,126	93%	1,778	1,463	6,507	6,507
Commercial	4%-100%	427,779	123	412	61%	16,325	11,166	50,323	39,810
Residential	1%-100%	100,400	109	791	93%	2,079	1,208	5,535	2,223
Hospital	74%	67,605	231	699	15%	1,679	1,243	1,346	1,346
Total	2%-100%	1,281,023	1,373	624	75%	121,519	24,195	81,010	56,158

² The impact disclosure table is prepared in accordance with green building core metrics from the ICMA Harmonised Framework for Impact Reporting (June 2026).

³ The share of total financing of different projects varies, depending on individual project arrangement.

⁴ The ex-ante avoided emissions estimate assumes each project was fully operational throughout the period covered by QNB's financing. It does not account for construction timelines or actual commissioning dates.

⁵ The ex-post avoided emissions figures reflect QNB's share of project emissions reductions realised during the bond period, adjusted for actual or estimated operational timelines. Projects that were under construction or not yet operational during the bond period were excluded.

2.2 – Renewable energy

The scope of the impact assessment for the QNB bond proceeds covers loan instruments and equity investments across renewable energy projects and manufacturing in East Asia and Southeast Asia, including direct project financing for solar PV, wind farms, hybrid (FDRE/RTC) systems, and Battery Energy Storage Systems (BESS), as well as financing for the manufacturing and sales of wind turbines, solar-grade polysilicon, and smart meters.

The financing helps to increase renewable energy generation and facilitate renewable energy adoption in emerging countries. Aligned with the eligible activities outlined in the QNB Group Sustainable Finance and Product Framework 2023⁶, the use of bond proceeds contributed to the following UNSDGs:

SDG 7 – Affordable and Clean Energy



SDG 13 – Climate Action



Table 6: Renewable energy impact disclosure

Project type	Region	QNB's share of total financing (%) ⁷	Total assets / projects impact			QNB's attributed impact contribution	
			Expected ⁸ or actual annual electricity generation (MWh/year)	Expected or actual installed capacity (MW)	Expected or actual annual avoided emissions (tCO ₂ e/year)	Annual avoided emissions (tCO ₂ e/year)	Avoided emissions over the bond period (tCO ₂ e)
Renewable energy projects in operation ⁹ (ex-post)	Asia	1%-11%	66,816,155	30,510	48,502,261	1,266,905	4,734,667
Renewable energy projects under construction (ex-ante)	Asia	8%-51%	4,664,700	2,130	3,305,995	519,431	2,261,219
Renewable energy manufacturing	Asia Pacific, Europe, Middle East and Americas	0.63%-0.64%	-	-	21,596,007	137,459	137,459
Other enabling activities	Middle East and SEA	4.75%-5%	-	-	7,183,200	359,630	1,798,149
Total	-	-	71,480,855	32,640	80,587,463	2,283,424	8,931,494

⁶ Source: <https://www.qnb.com/sites/qnb/qnbqatar/document/en/SustainableFinanceandProductFramework2022>

⁷ The share of total financing of different projects varies, depending on individual project arrangement.

⁸ Expected impacts are derived from renewable energy projects under construction, calculated on an ex-ante basis based on planned added capacity. Only the operational impact is factored in the avoided emissions over the bond period.

⁹ This category includes the acquisition of a renewable energy producer, which explains the high power generation figure. Power generation was pro-rated to the share of ownership of QNB in the company.

2.3 – Clean transportation

Within the Clean transportation category, QNB finances or refinances the production, establishment, acquisition, expansion, upgrades, maintenance and operation of low carbon mobility and related infrastructure.

Within this scope, QNB provided a loan to a clean transportation provider and major mass transit operator operating extensive urban rail networks across East Asia and selected international markets. The provider used the proceeds to finance or refinance the eligible green categories from its own Sustainable Finance Framework.

Table 7: Clean transportation impact disclosure

Project type	Region	Avoided emissions factor	QNB's attributed impact contribution ¹⁰	
			Annual avoided emissions (tCO ₂ e / year)	Avoided emissions over the bond period (tCO ₂ e)
Major mass transit operator	East Asia	41.37 tCO ₂ e / EUR 1M / year <i>Metric based on the borrower's Sustainable Finance Framework for eligible projects.</i>	2,260	11,300

Financing for clean transportation projects helps reduce associated GHG emissions and encourages commuters to choose cleaner alternatives over personal vehicles. Aligned with the eligible activities outlined in the QNB Group Sustainable Finance and Product Framework 2023¹¹, the use of bond proceeds contributed to the following UNSDGs:

SDG 9 – Industry, Innovation and Infrastructure



SDG 11 – Sustainable Cities and Communities



¹⁰ Impact calculated on a pro-rata portfolio attribution basis using the borrower's verified benchmark factor of 41.37 tonnes of CO₂e avoided per annum per EUR 1 million of green bond/loan proceeds allocated under its Sustainable Finance Framework.

¹¹ Source: <https://www.qnb.com/sites/qnb/qnbqatar/document/en/SustainableFinanceandProductFramework2022>

2.4 – Sustainable water and wastewater management

The scope of the impact assessment for the QNB bond proceeds covers the loan financing for two wastewater treatment plants in the Middle East:

- The Independent Sewage Treatment Plant (Project 1) employs an advanced three-stage treatment system comprising solid membrane filtration, chemical treatment, and anaerobic microbial processing. It is designed to handle sewage water up to 600,000 m³/day.
- The Independent Sewage Treatment Plant (Project 2) employs a multi-stage treatment process incorporating primary sedimentation, secondary biological nutrient removal, and tertiary filtration with ultrafiltration and ultraviolet disinfection. Designed with an initial phase 1 capacity of 150,000 m³/day (54.75 million m³/year).

The use of reclaimed water from the plant helps to reduce demand for freshwater abstraction and supports sustainable water resource management in a water-scarce region. Aligned with the eligible activities outlined in the QNB Group Sustainable Finance and Product Framework 2023¹², the use of bond proceeds contributed to the following UN SDGs:

SDG 6 – Clean Water and Sanitation



Table 8: Water and wastewater management impact disclosure¹³

Project type	Region	QNB's share of total financing (%) ¹⁴	Plant lifetime (years)	Total assets / projects impact		QNB's attributed impact contribution			
				Annualised wastewater treated (1st level) (m ³ /year)	Annualised water reused (m ³ / year) ¹⁵	Annualised wastewater treated (m ³ / year)	Annualised water reused (m ³ / year)	Wastewater treated over the bond period (m ³)	Water savings over the bond period (m ³)
Wastewater treatment	Middle East	14%-49%	30	273 million	237 million	58 million	52 million	98 million	90 million

¹² Source: <https://www.qnb.com/sites/qnb/qnbqatar/document/en/SustainableFinanceandProductFramework2022>

¹³ The impact disclosure table is prepared in accordance with sustainable water and wastewater management core metrics from the ICMA Harmonised Framework for Impact Reporting (June 2026).

¹⁴ The share of total financing of different projects varies, depending on individual project arrangement.

¹⁵ Water reused refers to treated effluent reused after sedimentation. It is assumed that 100% of this treated volume is reused for no-potable applications such as irrigation or industry.

2.5 – Pollution prevention and control

QNB's sustainable finance portfolio includes a waste management and resource recovery project combining mechanical sorting and advanced chemical recycling. At full scale, the facility is designed to divert over 30,000 tons of plastic waste from waste-to-energy each year by processing 24,000 tons of PET annually while utilising chemical pyrolysis to convert hard-to-recycle plastic fractions into higher-value products.

This model advances circular economy principles, reduces regional reliance on virgin plastics, and directly supports QNB's commitment to financing sustainable, low-carbon industrial infrastructure. Aligned with the eligible activities outlined in the QNB Group Sustainable Finance and Product Framework 2023, the use of bond proceeds contributed to the following UN SDGs:

SDG 12 – Responsible Consumption and Production



Table 9: Pollution prevention and control impact disclosure

Project type	Region	QNB's share of total financing (%)	Total assets / projects impact Waste diverted from waste-to-energy (tons/year)	QNB's attributed impact contribution	
				Waste diverted from waste-to-energy (tons/year)	Waste diverted from waste-to-energy over the bond period (tons)
Recycling facility	Middle East	68%	35,143	23,965	119,825

Annex I – Acronyms and abbreviations

ASHRAE	American Society of Heating, Refrigerating and Air-Conditioning Engineers
BAU	Business as usual
BREEAM	Building Research Establishment Environmental Assessment Method
CO ₂ e	Carbon dioxide equivalent
DEFRA	Department for Environment, Food & Rural Affairs
DESNZ	Department for Energy Security and Net Zero
EF	Emission factor
FR	France
GHG	Greenhouse gases
GFA	Gross floor area
GSAS	Global Sustainability Assessment System
HQE	Haute Qualité Environnementale (French green building certification)
ICMA	International Capital Market Association
IPCC	Intergovernmental Panel on Climate Change
IEA	International Energy Agency
kg	Kilogram
kWh	Kilowatt Hour
L	Litre
LCS	Low-Carbon Scenario
LEED	Leadership in Energy and Environmental Design
m ²	Square metre
m ³	Cubic metre
Mn	Million
MW	Megawatt
MWh	Megawatt Hour
PUE	Power Usage Effectiveness
PV	Photovoltaic

QNB	Qatar National Bank
RE	Renewable Energy
SDG	Sustainable Development Goals
t	Metric Tonne
tCO ₂ e	Tonne of Carbon Dioxide Equivalent
UK	United Kingdom
UNSDG	United Nations Sustainable Development Goals
WGBC	World Green Building Council
WHO	World Health Organisation

Annex II – Basis of preparation

General methodology

Two levels of environmental impact are assessed:

- **1st level – asset/ project-level impact contribution:** at the 1st level, environmental impact of an asset/ project is being assessed, reflecting the full environmental benefit they created/ would create on an annual basis. The impact metric selection is prepared in accordance with the voluntary guidance of the ICMA Harmonised Framework for Impact Reporting (June 2026).
- **2nd level – QNB attributed impact contribution:** at the 2nd level, the environmental impact of a project or a portfolio is being accounted for proportionally to the level of financing provided by QNB and the total number of years. We have adopted 'the share of total project finance' from ICMA guidance as the attribution factor.

General Assessment Logic

South Pole applies a counterfactual-based approach to estimate environmental impact, building two comparative scenarios:

- **Business-as-Usual (BAU):** scenario without the project intervention.
- **Low-Carbon Scenario (LCS):** scenario representing the expected performance of the project.

For example, avoided emissions are calculated using the following formula:

$$\text{Financed Avoided Emissions} = (E_{\text{BAU}} - E_{\text{LCS}}) \times \text{Attribution factor}$$

Where:

- E_{BAU} : Emissions from the Business-as-Usual (BAU) baseline scenario
- E_{LCS} : Emissions from the Low-Carbon Scenario (LCS)

Use of performance data and secondary data

South Pole applies a two-step approach:

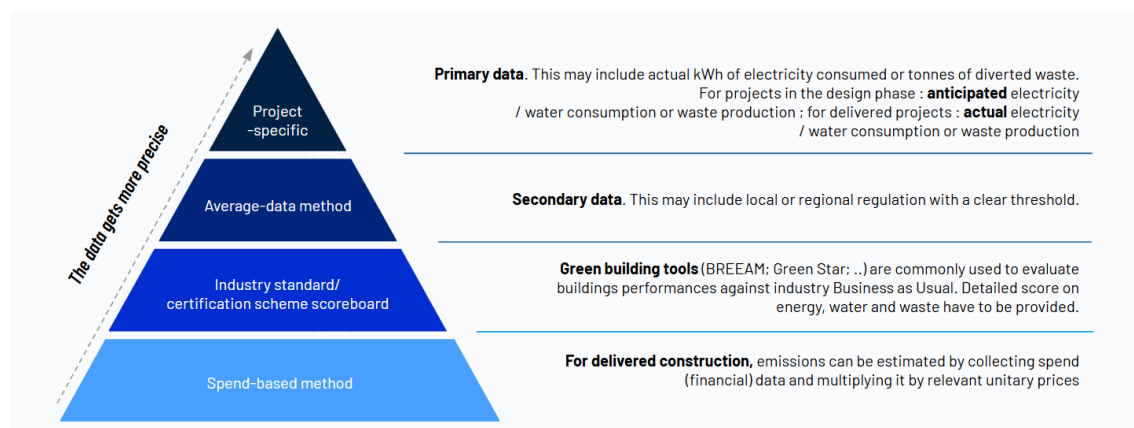
1. Primary data – performance data measured and reported by project owners or the client, where available, is used.
2. Secondary data – if primary data is unavailable, South Pole uses national statistics, industry benchmarks, or literature-based proxies.

Data quality hierarchy

South Pole prioritises data sources as follows:

- Verified project-specific data
- Government or regulator-published statistics
- Peer-reviewed academic literature or industry studies
- Proxy estimates and conservative assumptions where no other sources are available

Figure 1: Data quality hierarchy



Asset-specific methodology

Green buildings

Methodology and assumptions

Data are reported using a mix of ex-ante and ex-post approaches, depending on the availability and quality of underlying documentation received from QNB and their partners. Where the actual operational performance data (e.g. utility consumption records) were available, indicators are reported on an ex-post basis; where only design-stage documentation or modelling outputs were provided, indicators are reported on an ex-ante basis with clear disclosure of assumptions.

In accordance with the ICMA Harmonised Framework for Impact Reporting (June 2026), this report discloses the following indicators for green buildings:

- Energy consumption (kWh/m²/year)
- Construction waste diversion rate from waste-to-energy (%)
- Water consumption (L/m²/year)
- Avoided emissions (tCO₂e)
- Certification standard

Due to the diversity of the building locations, types and data availability, multiple assessment approaches were applied, including benchmarking against local building code, certification schemes, and default assumptions where appropriate. Specific assumptions and methodologies are transparently disclosed in the following sections of the report.

Reporting basis

In cases where the bond's financing period covers both construction and operation phases, this report discloses two types of avoided emissions: 1) estimated ex-ante avoided emissions based on expected building performance for the full bond period, and 2) ex-post avoided emissions estimates. In both cases, cumulative avoided emissions attributable to QNB over the bond period were estimated.

Additionally, the estimated avoided emissions of the asset can be disclosed on an ex-ante basis, using appropriate assumptions and modelling. This should be clearly labelled as forward-looking and not directly attributed to the bond reporting period, but may provide useful context to stakeholders regarding the asset's total impact potential.

1. Energy consumption

Certification is proof of implementing a process to reduce energy consumption in buildings. As part of QNB's investment conditions, a building must obtain green certification to be included in the green bond portfolio.

Selection of performance data, proxy data and baseline:

- **Use of performance data:** Where available, South Pole adopted consumption data supplied by QNB in kWh/year and broken down by energy sources (Electricity, Natural gas, District heating, District cooling), after assessing its quality.
- **Proxy data development:** When data is not available, South Pole relied on various sources to establish the estimated building consumption, from government-backed building energy consumption figures to consumption based on the building's environmental certification ratings.
- **Baseline development:** To establish the reference situation, South Pole used local government data, building standards in line with the construction/retrofit delivery year, and research publications. Baselines are given in kWh/m²/year to allow comparison with the various assets.

Data quality and limitations

For most of the assets/ projects, the building's operational emissions were calculated from its consumption and each energy's emission factor. The emission factors were selected from a list of reputable databases to ensure methodological robustness and contextual relevance. For this calculation, South Pole used the following sources:

Table 10: Green buildings emission factor sources

Emission Factor sources	France	UK	Ireland	Germany	Qatar
Electricity (location-based)	IEA 2025	DESNZ 2025 (UK's Department for Energy Security and Net Zero)	IEA 2025	German Umweltbundesamt 2025	IEA 2024
Gas	ADEME 2025	DESNZ 2025	DESNZ 2025	ADEME 2025	ADEME 2025
District heating	South Pole proprietary calculation	South Pole proprietary calculation	South Pole proprietary calculation	-	-
District cooling	-	-	-	-	Ecoinvent 3.11

When the previous methodology is not available, the operational emissions were derived from the baseline, according to their respective green building certification levels.

In developing the green building baseline data, South Pole prioritises different data sources from the most to the least preferred data quality: (1) National statistics, (2) National building regulation codes or certification baselines, (3) Peer-reviewed literature research or international estimates, (4) Proxy results. Desk research was conducted to identify the most reliable and context appropriate

baseline data available. The baselines were determined based on the country and type of building. The table below specifies the sources used for the baseline.

Data availability increased compared to last year, driving changes in avoided emissions by integrating new cooling consumption metrics into the analysis.

Table 11: Green buildings energy baseline sources

Region	Type of building covered	Type of data sources	Link
Europe	Commercial - Office (renovation building)	National building regulation codes	Reglementation Thermique (RT) 2005
	Commercial - Office Commercial retail Industrial - Light industrial	National building regulation codes	Réglementation Thermique (RT) 2012
	Commercial - office	National building regulation codes	Guide Reglementation Environnementale (RE) 2020
	Industrial - Data Hall	Direct from the certification scheme (SDC - alignment with EN 50600-4-2 calculation)	Internal document received from QNB
	Commercial - Office Commercial - Retail Commercial - restaurant Mixed use Residential Industrial - warehouse Hospitality - Hotel	Academic research (Chartered Institution of Building Services Engineers)	CIBSE: Energy benchmarking dashboard
	Commercial - Office	National/government statistics	Central Statistics Office (CSO) - Electricity consumption Central Statistics Office (CSO) - Non-domestic building energy rating

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Region	Type of building covered	Type of data sources	Link
	Residential	National/government statistics	Central Statistics Office (CSO) - Household electricity consumption
			Central Statistics Office (CSO) - Domestic building energy rating
Middle East	Hospitality - Hotel	Academic research (Chartered Institution of Building Services Engineers) ¹⁶	CIBSE: Energy benchmarking dashboard
	Commercial - Office	Peer-reviewed literature research	Alhorr and Elsarrag, 2015
	Hospital	Academic research (Chartered Institution of Building Services Engineers) ¹⁷	CIBSE: Energy benchmarking dashboard

In case space heating data were missing from other sources, national averages from IEA Energy End-uses and Efficiency Indicators were used to supplement the baseline.

¹⁶A proxy baseline from the United Kingdom has been adopted here since there is no relevant national baseline identified for high-end hotel category.

¹⁷A proxy baseline from the United Kingdom has been adopted here since there is no relevant national baseline identified for high-end hotel category.

2. Water

Selection of performance data, proxy data and baseline:

- **Use of performance data** – Where available, South Pole adopted water consumption data provided by QNB.
- **Proxy data development** – Where not, the consumption information was extracted from the baseline using ratios from the Green Buildings studies¹⁸ and environmental certifications, particularly BREEAM:

BREEAM awards credits based on the percentage reduction in water use, which allowed us to estimate water savings:

Table of credits / % water saving

- **Baseline development** – In accordance with the building's consumption, South Pole used preferably water benchmarks provided by QNB, where available. Where not, the baseline has been extracted from different sources, following the asset types and location:
 - Office: country statistics; union statistics (FR & UK); national real estate benchmarks
 - Hotels: occupancy national statistics; technical documentation from national network operators
 - Residential: national statistics

When the baseline calculation needs a conversion into litres per square meter (L/m²), from a value in litres per person (L/p), South Pole used an additional conversion factor: the occupancy rate references (person/m²), specific to building type¹⁹.

Water consumption varies significantly by building type. For example, hotels consume substantially more water than residential buildings. We have also adjusted for occupancy frequency. For example, hotels are not occupied year-round, while residential buildings are assumed to be continuously occupied. For office buildings, we considered 220 working days per year (excluding remote work).

3. Waste

Construction waste diversion considered in this part covers the construction/ renovation work and not the waste generated by the building's operations, as suggested by the core indicators of the ICMA Harmonised Framework for Impact Reporting (June 2026).

Most of the assets/ projects are located in countries where the diverted waste rate is closely monitored and exceeds the green certification recommendations (France: 75%; UK: 95% in 2024). National value is used in this case.

Where this is not the case, academic research documents have been used to determine an average rate of diverted construction waste.

¹⁸ WGBC, The business case for Green Building, 2013

¹⁹ Number of occupants estimated from document titled ANSI/ASHRAE Standard 6.2.1-2013, "Ventilation for Acceptable Indoor Air Quality", 2015 : Table 6.2.2.1

Renewable energy

In accordance with the ICMA Harmonised Framework for Impact Reporting (June 2026), this report discloses the following indicators for renewable energy:

- Annual electricity generation (MWh/year)
- Installed capacity (MW)
- Annual avoided emissions (tCO₂e/year)

Selection of performance/ emission factors:

Avoided emissions were calculated based on actual and estimated electricity generation figures provided by the client for the year 2025, multiplied by location-based grid emission factors from IEA 2025, aligned with the projects' countries of operation. This approach estimates the operational GHG emissions displaced by the renewable energy generation within the reporting year.

When the power generation assets are in operation, the annual avoided emissions are disclosed on an ex-post basis. For projects under construction, the added capacity was used to derive a hypothetical generation figure; impacts are therefore calculated on an ex-ante basis. Projects under construction are indicated as such in Table 6: Renewable energy impact disclosure.

Data assumption:

Assets/ projects' lifespans were assumed to be 20 years for wind energy and 25 years for solar PV, based on internationally recognised literature.

- For wind energy, a 20-year operational life is standard practice and reflects typical design life assumptions;²⁰
- For solar PV, 25 years is consistent with typical module warranties and expected technical lifespan;²¹

Solar PV degradation was assumed at 0.7% annually, representing a conservative average for crystalline silicon modules.²² Wind energy degradation was assumed at 0.52% annually, in line with estimates observed in empirical research for modern turbines.²³ QNB's attributed share of the avoided emissions was calculated pro rata based on its share of total project financing when available.

Where specific attribution data was unavailable or for working capital loans, South Pole applied the ownership principle from the Global GHG Accounting and Reporting Standard for the Financial Industry. Under this principle, emissions were attributed based on QNB's 'virtual ownership' stake: calculated as QNB's financing divided by either the target company's total value (equity plus debt) or the project's total CAPEX.

For electricity generation assets, only operational (use-phase) avoided emissions were included, in line with ICMA Harmonised Framework guidance which prioritises operational impact metrics for renewable power displacement. However, when assessing the manufacturing of renewable energy

²⁰IPCC (2011). Special Report on Renewable Energy Sources and Climate Change Mitigation (SRREN), Chapter 7: Wind Energy, Section 7.3.1.2, p.19.

²¹EA PVPS (2020). Task 12: Methodology Guidelines on Life Cycle Assessment of Photovoltaic Electricity, Section 3.1.1, p.10.

²²EA PVPS (2020). Task 12: Methodology Guidelines on Life Cycle Assessment of Photovoltaic Electricity, Section 3.1.4, p.12.

²³Koukoura, S., et al. (2021). Analysis of Wind Turbine Ageing through Operation Data Calibrated by LiDAR Measurement. Renewable Energy, 170, 1190-1200.

components (e.g., wind turbines),²⁴ South Pole netted out the embodied manufacturing emissions. This ensures the carbon footprint of production and logistics is subtracted from downstream operational savings, providing a conservative and full-lifecycle measure of net avoided impact.

Reporting basis

The annualised avoided emissions are reported on an ex-post basis, derived from actual electricity generation data for the year 2025 as provided by the client.

Data quality and limitations

- Emission factors reflect national averages, which may not capture local or marginal electricity generation differences.
- Installed capacity figures were provided by the client. In the absence of electricity production data, South Pole estimated the annual electricity generation based on the installed capacity. South Pole used the following capacity factors to do so:
 - Wind power: capacity factor at 25% in line with global average.
 - Solar power: high sun exposure such as India observe a capacity factor of 25% on average.
 - South Pole used a conservative capacity factors of 25% for hybrid systems.

Polysilicon manufacturer

Regarding the polysilicon manufacturer, net avoided emissions were quantified using a framework aligned with the World Business Council for Sustainable Development (WBCSD) guidelines. The model translates the company's expected output of 100,000 MT of solar-grade polysilicon per year into downstream module capacity at an industry-standard rate of 2.5 g/W (yielding ~40 GW/year). Assuming an 18.5% average capacity factor (~64.82 TWh/year of clean electricity), gross avoided emissions were measured against an IEA global grid baseline (0.475 kg tCO₂e/kWh) less standard full-lifecycle PV manufacturing emissions (30g CO₂e/kWh). Applying a 30% value-chain allocation for raw polysilicon refining produces an annual net company total of 8,619,840 tCO₂e avoided. Finally, attributing this total based on a 5.01% attribution factor,²⁵ the result yields 431,555 tCO₂e of net avoided emissions per year attributable to QNB.

Water and wastewater management

Methodology:

The BAU scenario assumes no treatment of wastewater. For Project 1, LCS reflects the plant's treatment capacity. Project 2 is based on pre-operational data.

Reporting basis

No energy-related or GHG-related benefits are claimed for these facilities, in alignment with ICMA guidance, which recommends exclusion of such indicators unless energy efficiency measures or GHG capture technologies are in place.

Given the end-use and government procurement commitment, this report assumes a one-to-one reuse ratio between the volume of treated effluent and the volume of freshwater saved.

²⁴ Life-cycle embodied emissions factor for wind energy used a standard benchmark of 0.011tCO₂/MWh.

²⁵ The attribution factor was obtained by adding the total amount of financing across working capital and project finance, divided by the company's total CAPEX commitment for its polysilicon factory.

Assumptions and Limitations

- It has been assumed that the volume of wastewater treated at the first level is calculated based on the plants design capacity and multiplied by 365 days. This represents the theoretical maximum capacity assuming full operational utilisation.
- Water saving refers to treated effluent reused after sedimentation. It is assumed that 100% of this treated volume is reused for non-potable applications such as irrigation or industry.

Pollution prevention and control

Methodology:

The environmental impact of the project was quantified using a mass-balance model to determine expected annual plastic waste diverted from waste-to-energy at full operating capacity.

- Mechanical sorting line: total waste input was calculated based on the facility's nameplate processing capacity of 2,000 MT/month of PET bundles (24,000 MT/year). A 100% initial waste diversion rate was applied to all incoming feedstocks arriving at the sorting line.
- Chemical pyrolysis plant: required feedstock volumes were derived using an industry-standard 70% product mass-yield conversion factor. To achieve the target output capacity of 650 MT/month (7,800 MT/year), the required raw plastic waste input was calculated as:

Annual Input Feedstock = 7,800 MT Yield / 0.70 Yield Factor = 11,142.86 MT/year

The assumption is that both sections operate independently, sourcing separate streams from municipal and industrial waste. Expected annual waste diverted from waste-to-energy at full nameplate operating capacity is:

Total Annual Diversion = 24,000 MT (Sorting) + 11,143 MT (Pyrolysis) = 35,143 MT/year

Assumptions and Limitations

- Figures represent expected annual environmental impact at 100% full nameplate operational capacity. Construction timelines, commissioning dates, and ramp-up phases are excluded from impact calculations.
- The assessment scope is strictly restricted to waste diversion metrics (waste-to-energy avoidance).
- The model assumes the pyrolysis line sources 100% of its feedstock (11,143 MT/year) from external mixed plastic waste streams independent of the PET sorting line's operations.
- Nameplate annual figures assume continuous operations over 12 months without accounting for scheduled maintenance, operational downtime, or supply chain disruptions.
- A fixed 70% product conversion yield is assumed based on published peer-reviewed benchmarks. Actual yields may fluctuate between 60% and 80% depending on feedstock contamination, moisture levels, and polymer composition.
- All incoming PET bundles and mixed plastic waste entering both lines are assumed to be fully diverted from municipal waste-to-energy.

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The impact assessment results presented herein are based on data and documentation provided by the client and/or third-party sources. South Pole has not independently verified the accuracy, completeness, or traceability of the data. Where data gaps exist, reasonable proxies, industry benchmarks, or assumptions have been applied, as disclosed in the relevant sections.

All estimates and findings are sensitive to input parameters, such as emission factors, baseline scenarios, and actual or assumed asset performance. Results should be interpreted in light of the data quality and methodological limitations described in this report.

This assessment has been conducted independently by South Pole consultants who were not involved in the structuring, approval, or execution of the financing activities. To the best of our knowledge, the consultants do not hold any conflicts of interest with respect to Qatar National Bank, the financed projects, or any affiliated third parties. South Pole has not conducted independent verification of the accuracy, completeness, or traceability of the data.

- Where data gaps exist, reasonable proxies or assumptions have been applied, as disclosed in relevant sections.
- Impact estimates are sensitive to input assumptions, emission factors, and asset performance. Results should be interpreted considering the data quality and methodological choices described above.