TechnoGroupService LLP

Green Bond Framework

The Republic of Kazakhstan

November 2023

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TGS

1. INTRODUCTION

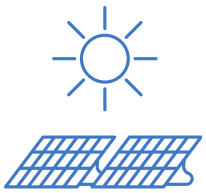
TechnoGroupService LLP is one of the leaders in the construction and operation of solar power plants in Kazakhstan. The company focuses on the development and construction of projects in the field of renewable energy.

TechnoGroupService LLP (hereinafter TGS) is the first commercial company in the country to inculcate renewable energy sources (RES) as the main source of electricity generation in the energy grid. The company operates and works with a number of RES – solar, wind, and hydro, and provides solutions and services that cover the entire life cycle of renewable energy projects – starting with design and selection of suitable site, through obtaining permits for land use and environmental impact assessments, to construction and integration into the energy grid, as well as a follow-up maintenance.

TGS is the only large-scale contractor for the construction of solar power plants and additionally operates its own production facility, where certain components for the installation of photovoltaic modules are produced.

In 2018, TGS started its activity with the installation and operation of 100-meters wind measuring masts for wind power plants developers, including international clients. More than a dozen masts have since been successfully installed in all regions of Kazakhstan. Building upon this activity and the extensive previous experience of the management team in power generation and the electricity sector, TGS started a new activity as an Engineering, procurement, and construction (EPC) company with the construction and operation of solar power plants (SPPs): 10 MW Kengir SPP, 50 MW Balkhash SPP. TGS also developed its own 1,2 MW SPP in Zhezkazgan city.

In addition to the main activity, TGS is developing IT-services ("Intech-Forecast") for green power plants to provide power generation forecast in the conditions of existing imbalances in the electricity generation market. Another solution developed by TGS is the digital platform – Green Light, which aims at promoting green energy consumption by both the population and the legal entities and enables the introduction of a Green Energy option into the electricity bill.



Solar projects

Wind projects

Hydro projects

First in the field

In 2021 TGS was nominated and awarded the "Altyn Sapa" (Gold quality) prize in the national competition in the category "Best Company Providing Services".
TGS is the first company to win this nomination in the field of green projects.

Another milestone for TGS is the registration of copyright for intellectual property – an educational training case for the course "Leadership and Entrepreneurship" at the Graduate School of Business Nazarbayev University (GSB NU).

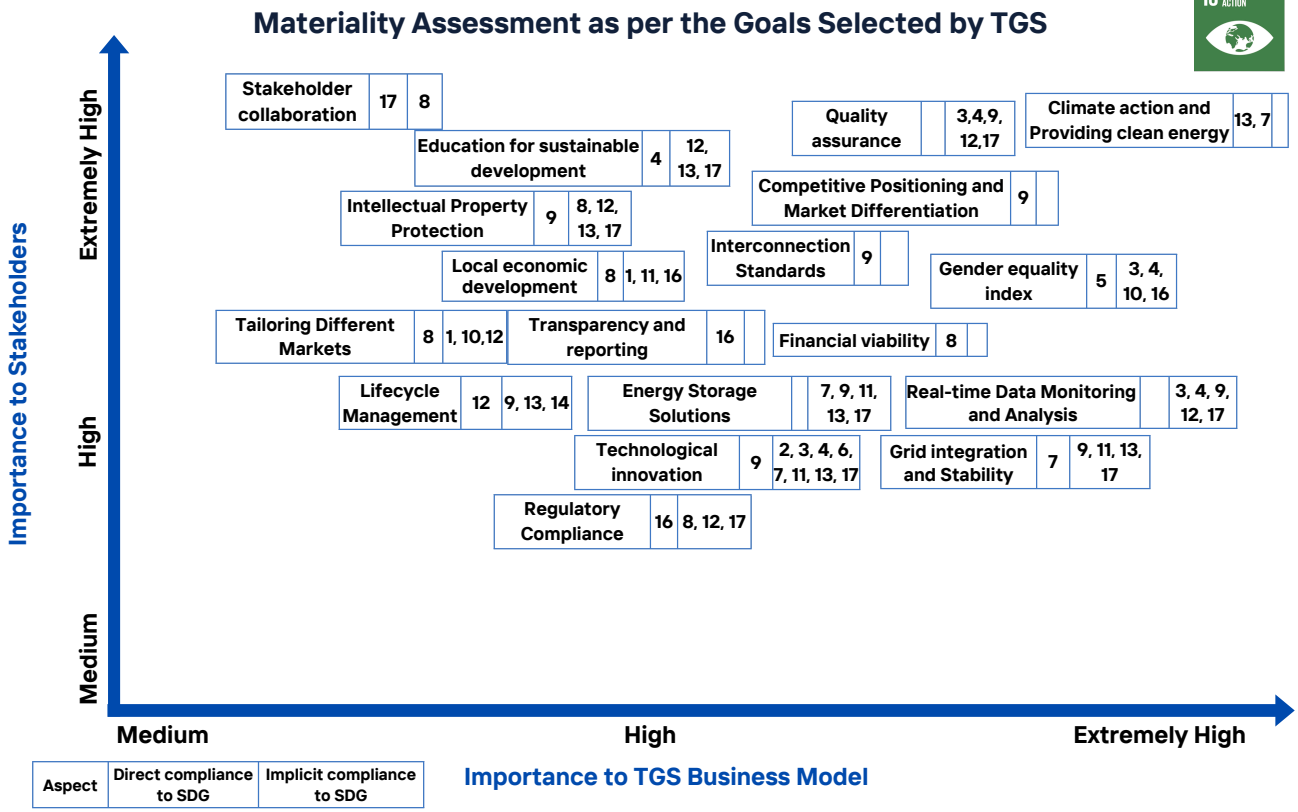
The topic of the case study is "TechnoGroupService LLP: In Search of a Blue Ocean in the Renewable Energy Industry in Kazakhstan" and it is the first case of the renewable energy field in Kazakhstan and Central Asia to be included into the academic materials for students of the full time MBA, Executive MBA, and Master of Engineering Management program.

Next steps

TGS is set to explore new business opportunities in the green energy generation field such as the development of wind power plant (WPP) projects and hydrogen production and storage facilities.

SDG Materiality matrix

TGS is committed to sustainability at all levels of business. Therefore, the company developed its materiality matrix with the aim of positioning its Sustainable Development Goals' (SDG) commitments in the business model as well as in its relations with stakeholders:



2.RATIONALE FOR ISSUING A GREEN BOND

With climate change being one of the biggest risks and challenges to our planet, people, and economy at present, TGS participates in the global effort needed to achieve a lasting impact. TGS' vision is to accelerate the energy transition by developing renewable energy assets. By issuing a Green Bond, the company is not only committing to developing green projects and assets, but also committing to being part of the pioneering group using this rather new financial instrument in the Kazakh market to raise funds and develop sustainable projects, both locally in the country and in the region.

At the base of TGS' Green Bond Framework (GBF) are the Green Bond Principles (GBP) published in 2021 and updated in June 2022 by the International Capital Market Association (ICMA). The company's effort to launch a credible Green Bond as per the highest international standards has been guided by the ICMA GBP, which promote and enable greater transparency, disclosure, and integrity of the issuance process.

The GBF is built upon the four key pillars: (i) Use of Proceeds, (ii) Process for Project Selection and Evaluation, (iii) Management of Proceeds, and (iv) Reporting. With its ambition in sustainable development, TGS has also drawn upon and integrated the UN Sustainable Development Goals (UN SDGs) into its Framework. TGS business model is based on making renewable energy more accessible for local communities and businesses, thus TGS strives to use the best available technologies for a successful energy transition.

In addition to the international standards, TGS is also taking into account national legislation and environmental provisions. The Republic of Kazakhstan ratified the Paris Agreement in 2016 and set a Nationally Determined Contribution (NDC) for an economy-wide reduction of greenhouse gas (GHG) emissions of 15 percent from the baseline year 1990, which is to be achieved by 2030. In a bid to increase its commitment to global efforts, the country also announced its intention to reach carbon neutrality by 2060 during the UN Climate Ambition Summit in 2020.

Being a leader in the renewables' field in Kazakhstan, TGS understands the importance of optimizing its activities to the highest standards. TGS believes that with a successful green bond issuance, it would be able to support the NDC commitment of Kazakhstan, set an example for other companies in the country, and encourage more issuances.

Green legislation

The company will contribute to achieving the national ambitions and goals for climate change mitigation and action by supporting clean energy investments. In recent years, Kazakhstan has been developing its legislation to define concepts of "green" financing and "green" projects and provide a classification (taxonomy) of "green" projects to be financed through "green" bonds and "green" loans. Observing the national effort to incorporate green finance concepts and instruments in the economy and the creation of favorable conditions for the use of such instruments has motivated TGS to pursue a green bond issuance for the execution of its renewable projects' portfolio.

TGS is also actively involved in the renewable energy legislation open discussions. TGS has delivered proposals for optimizing Net-consumers regulatory basis and participated in incentives for localizing manufacturing of equipment in Kazakhstan. TGS signed a Memorandum on the development of a wind power project with a capacity of 1 GW in Ulytau region, as well as participation in upcoming auctions for wind and solar farms in Kazakhstan during 2023-2027.

Succeeding in its ambitions and contributing to the achievement of the national goals and targets is a lengthy process requiring large investments and focus. TGS believes that using green bonds as a key enabler of this process will further solidify its position as a leader of renewable energy generation in the country and will emphasize its commitment to not only construct and operate sustainable assets, but also to build its business and financial strategies around sustainability for future generations.

3. GREEN BOND FRAMEWORK

3.1. Use of Proceeds

100% of the Green Bond net proceeds will be allocated to finance projects in areas such as renewable energy and energy efficiency that contribute to the Company's environmental and climate goals. Projects within these areas fall into Eligible Project Categories as defined by the GBP of ICMA. Eligible Green Projects that will be considered by TGS include development and construction of new renewable energy assets, investments in acquisitions or improvement of processing cycle, and other related and supporting expenditures such as R&D that may relate to more than one category and/or environmental objective.

Additionally, it is important to note that due to the organizational structure of TechnoGroupService funds allocation shall be made directly by TGS or through a dedicated asset holding subsidiary. Aside from the GBP, the UN SDGs are also playing a key role into the consideration of Eligible Green Projects. The following table presents an overview of the Eligible Project Categories, the Eligibility Criteria, and the alignment with UN SDGs, and it is to be used as a guideline for the Project Evaluation and Selection processes.

In this regard, proceeds from the issuance of Green Bonds can be used for financing Eligible Project Categories planned for implementation after release of Green Bonds.

The following table presents an overview of the Eligible Project Categories, the Eligibility Criteria, and the alignment with UN SDGs, and it is to be used as a guideline for the Project Evaluation and Selection processes.

Eligible Project Category	Eligibility Criteria	SDG alignment
Renewable energy	A. Design, development, construction, expansion, maintenance, acquisition, and/or operation of renewable energy projects, such as: • Installation of solar power plants (development and/or construction) such as centralized and decentralized solar power plants, including concentrated solar power plants (CSP), solar photovoltaic (PV), decentralized solar PV. For example: 3 SPPs with a total capacity 120 MW and electricity generation 200,000 MW/hour. • Installation of wind farms (design and development and/or construction) such as wind generators, wind pumps, wind turbines. For example: 50 MW WPP with electricity generation of 165,000 MW/hour. • Installation of hydro power plants (design and development) such as small hydroelectric power plants with installations located in one hydroelectric complex, with a total capacity of up to ten megawatts (inclusive) (with no extra threshold criteria), or medium hydroelectric power plants with a total installed capacity of 10 to 100 megawatts (MW), including pumped hydroelectric power plants, meeting the following threshold criterion: Power density (the ratio of the nominal capacity of the facility to the surface area of the reservoir) > 10 W/m2. For example: 2 MW HPP with electricity generation of 7,500 MW/hour. • Development, commissioning, and operation of facilities for equipment manufacturing , particularly factories for the production or assembly of wind, hydro and geothermal turbines, photovoltaic cells and components, solar collectors (so-called dishes or dishes), troughs and components, geothermal pumps.	  

Eligible Project Category	Eligibility Criteria	SDG alignment
Renewable energy	Manufacture of products, key components, equipment and automated technology for the following renewable energy applications: geothermal energy, solar hydropower, concentrated power (CSP), solar photovoltaic (PV), wind energy. For example: WPPs and SPPs with a total capacity of 600 MW. • Purchase of equipment and specialized machinery for construction and installation of WPPs. B. Allocation of funds to the improvement of the operation and production cycle: • Financing extensions of the scope of services related to construction, operations, and maintenance of solar projects and assets. • Financing technologies providing greater productivity from solar assets and more effective and less energy-intensive construction or operation of solar energy (renewable) sources. • Financing of production equipment for solar panel components manufacturing. • Financing of R&D and state-of-art technologies for production of rare metals and high purity materials for solar and wind and energy storage technologies. • Financing of R&D and state-of-art technologies for production of green hydrogen.	  
Energy Efficiency	Allocating proceeds to initiatives, technology, equipment and automation or production cycle to reduce greenhouse gas (GHG) emissions, and/or to increase energy savings, (20% minimum) compared to baseline (pre-project baseline): • Energy efficiency improvement of production process of solar panel components. • Energy efficiency improvements in existing commercial (including warehouses) buildings. • Energy efficiency improvement of production process of charging electric vehicles. • Other energy optimization projects.	 

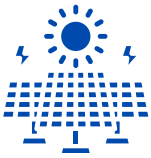
Eligible Project Category	Eligibility Criteria	SDG alignment
Renewable energy	B. Allocation of funds to the improvement of the operation and production cycle: • Financing extensions of the scope of services related to construction, operations, and maintenance of solar projects and assets • Financing technologies providing greater productivity from solar assets and more effective and less energy-intensive construction or operation of solar energy (renewable) sources • Financing of production equipment for solar panel components manufacturing • Financing of R&D and state-of-art technologies for production of rare metals and high purity materials for solar and wind and energy storage technologies • Financing of R&D and state-of-art technologies for production of green hydrogen	
Energy Efficiency	Allocating funds to initiatives, technology, and automation or production cycle to reduce greenhouse gas (GHG) emissions and operational carbon footprint: • Energy efficiency improvement of production process of solar panel components • Energy efficiency improvements in existing commercial (including warehouses) buildings • Energy efficiency improvement of production process of charging electric vehicles • Other energy optimization projects	

For the above mentioned ICMA compliant Project Activities and as cross-cutting priority for all TGS operations, the group identifies climate action and providing clean energy, education for sustainable development, technological innovation, gender equality, stakeholder collaboration, and partnerships for the future as key pillars of its business, thus its Environmental Social and Governance (ESG) commitment spans across the following SDGs:

Across our supply chain, client, and partner base we commit to partnerships, especially with universities and academics constantly improving and sharing our knowledge for the SDGs' achievement.

Eligible Project Categories

If projects are aligned with Eligible Project Categories but are not included in the categories specified in Table 1, if necessary, TGS will obtain an additional Second Party Opinion from the second party, and additional categories and eligibility criteria will be described in the Green Bond Framework, prospectus or any other listing documentation.



TGS plans to allocate the proceeds from the first green bond to be issued under the GBF to a project for the construction of a 50 MW solar power plant (SPP) "Kun-Bulagy" in the Toru-Aigyr aiyl okmotu (rural area) of the Issyk-Kul district of the Issyk-Kul region (Kyrgyzstan).

Regarding the production of electricity from Solar PVs, TGS is aware that the EU Taxonomy Annex defines a metric and threshold for facilities to operate at life cycle emissions lower than 100gCO2e/kWh, declining to net-0gCO2e/kWh by 2050. However, at the time of the GBF adoption, Solar PV is currently derogated from performing a Product Carbon Footprint or GHG lifecycle assessment subject to regular review in accordance with the declining threshold. Thus, at the time of GBF publication, production of electricity from solar PV is deemed to be EU Taxonomy eligible.

Expected environmental impact of the project – annual avoided greenhouse gas emissions of approx. 10 538 tCO2/year.

3.2. Process for Project Evaluation and Selection

All potential projects to be financed from Green Bond proceeds must comply with the Use of Proceeds section and have a positive impact on the environment.

Therefore, with the aim of conducting the process of project evaluation and selection, TGS created a dedicated Green Bond Committee responsible for screening, evaluating, and selecting projects in accordance with eligibility criteria that are to be financed using the proceeds of the Green Bond(s).

The Green Bond Committee comprises a team of 3 experts: **finance, technical and business development,** who are the permanent members of the Committee. However, for Committee's assistance TGS has right to involve other relevant TGS staff and independent experts such as an environmental specialist, risks and compliance on a temporary basis.

Potentially eligible projects shall be proposed by an initiator, who could be anyone from the Committee or from the technical management (technologist, process and production manager, project manager, etc.) stationed at a location where the project is being/to be implemented, based on eligibility criteria established in this Framework and on expected and/or achieved environmental effects.

The Committee, together with the initiator, determines the metrics that best describe the impact to be achieved and decides whether the project should be included in the list of Eligible Green Projects.

In the process of selecting Eligible Green Projects, the criterion of no significant adverse effects on the environment must be met. This non-harm principle shall be fulfilled when projects comply with the requirements of national legislation and regulatory requirements of the country where the project is implemented. Where projects require an environmental impact assessment in accordance with national legislation and regulatory requirements, the Company shall undertake to conduct such environmental impact assessment.

Accounting for and assessing environmental factors when considering Eligible Green Projects includes making sure the project doesn't include activities that could result in a significant deterioration of the environment, working conditions and social circumstances of the affected population, which are classified as illegal by national legislation, regulations or international conventions and treaties. The list of Eligible Green Projects may be reviewed by the Committee periodically with the addition of new projects or the exclusion of projects that no longer meet the specified criteria.

The Company will follow its ESG risk assessment policies when applying risk assessment procedures. Specifically, TGS has the following policies in place: **Environmental Policy, Energy and Emissions Policy and HSE Policy.**

In accordance with Environmental Policy:

When performing the Do-No-Significant-Harm risk assessment for projects that have a significant contribution to climate change mitigation, the Company shall make sure no significant harm is done to the other environmental objectives. In terms of ensuring minimum social safeguards, the Company commits to carry out activities in alignment with the UN Guiding Principles on Business and Human Rights, including the principles and rights set out in the eight fundamental conventions identified in the Declaration of the International Labor Organization on Fundamental Principles and Rights at Work and the International Bill of Human Right.

The Committee's decision

The Committee will report directly to the Board of Directors and meet once per quarter. The Committee is expected to make a decision by means of a majority vote. The Secretary of the Green Bond Committee, whose role is the organization of the Committee's work and operations, will have no voting rights. The Committee's decision will be binding.

Any employee or department of the TGS, responsible for the implementation of green projects, may include a point on the Committee's agenda of the day.

Within the mandate of the Committee shall conduct the following tasks:

1) Screen and evaluate the Eligible Green Projects as per the criteria set out in Section 3: Use of Proceeds.
2) Approve projects where there is a high likelihood of positive long-term environmental effects.
3) Follow market and international standards changes and update the GBF accordingly.
4) Discuss, research, and where needed seek expert advice in order to determine if a given project is compliant with the GBP.
5) Keep a clear record of finances – report expenditures related to the selected projects.
6) Monitor external reviews (Second Party Opinion and Independent Verifier) and external advisor(s).
7) Review and approve the annual Green Bond reporting.
8) Monitor the evolution of the sustainable finance regulation, with a view of potentially updating the Framework to the extent necessary. Such updates would only apply to Green onds issued after the publication of the updated framework and new Second Party Opinion.
9) Perform Environmental (Do-No-Significant-Harm) and Social (safeguards) risk assessments.

3.3. Management of Proceeds

TGS will rely on an internal system to monitor, track, and report the Green Bond proceeds. The Financing Department of TGS together with the Green Bond Committee will manage the net proceeds of the green bond which are to be credited to a separate/sub-account.

Such approach will allow for a greater transparency, easier handling of funds, and the tracking of the respective project allocation at the reporting stage. All proceeds of the Green Bond are expected to be allocated to Eligible Green Projects in due time, and TGS will make the best efforts to allocate proceeds within 24 months from the Green Bond issuance. In the cases where unallocated net proceeds are used for temporary placement, the proceeds shall be deposited in or invested in liquid financial instruments or, where otherwise invested, this will be clearly communicated to investors with any relevant Environmental, Social and Governance aspects of the investment disclosed.

Additionally, following a key recommendation of the ICMA GBP, the company will commission an external auditor to verify the internal tracking system and allocation of Green Bond proceeds as a supplementary step to the internal management of funds mechanism.

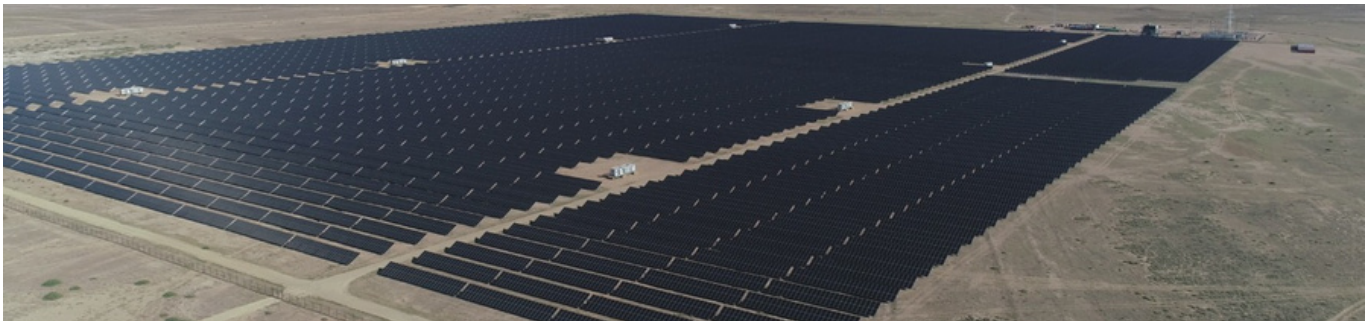
3.4. Reporting

Following the principle of transparency and keeping information readily available, TGS will regularly publish reports – Allocation Report and Impact Report – that are to provide more details on the use of Green Bond proceeds, project selection, development, and implementation, expected and/or achieved impacts, etc. The reports are to be published on the company's website (https://tgs-energy.kz) on a yearly basis, commencing the reporting one year after the green bond issuance, and it is expected that both reports are to be published as long as there are any outstanding green bond proceeds.

a. Allocation Reporting

As a first step in the reporting process, TGS will publish a yearly Allocation Report, which will provide a clear record of the Green Bond proceeds and their allocation to Eligible Green Projects.

The report will provide an overview of the projects to which funds have been allocated, the amount of proceeds allocated to each project individually as well as the cumulative bond proceeds allocated to the different project categories, as defined in the present GBF. Any detailed quantitative reporting and project descriptions are to be made in consideration of confidentiality agreements and competitive considerations, and in case where such detailed reporting is limited, as per the GBP recommendation a more generic overview of the information will be provided (e.g. percentage allocated to specific project category). Additionally, the report will include details about the share of the temporary placement of funds, if any, and regarding the balance of any remaining unallocated proceeds.



b. Impact Reporting

As part of the reporting process, an Environmental Impact Report will also be prepared and published on a yearly basis from the moment of bond issue until full repayment and in case of any significant changes, with the first one published one year after issuance.

The report will be yet another step into the company's effort to keep a transparent and clear communication stream with stakeholders and investors. The aim of the environmental impact reporting process will be to provide more information about the expected and/or achieved environmental impacts occurring as direct or indirect result of the projects to which proceeds from the Green Bond have been allocated.

As recommended by the GBP, TGS will use qualitative performance indicators and, where feasible, quantitative performance measures. As part of the commitment to be aligned with the latest international standards and guidelines, when selecting impact reporting indicators, TGS will take into consideration the Harmonised Framework for Impact Reporting, published in June 2023, as well as the Global Reporting Initiative standards and indicators. The data obtained during the reporting period, any baseline data, and the methodology used will also be detailed in the report.

KPI	Unit	Global Reporting Initiative Category
Renewable energy capacity (solar, wind) installed; Capacity of energy storage facility	MW MWh	GRI Standard 302
Renewable energy (solar, wind) expected to be produced	MWh	GRI Standard 302
Capacity of manufactured solar and wind equipment	MW	GRI Standard 302
GHG emissions reduced as a direct result of reduction initiatives, in metric tons of CO_2 equivalent	Metric tons of CO_2e avoided	GRI Standard 305-5

4.0. Independent External Review

TechnoGroupService will subject its Green Bond Framework to an official Second Party Opinion verification process. TGS will engage an experienced external reviewer who will assess the validity and alignment of the Framework with the GBP of ICMA. Once obtained the Second Party Opinion together with the Green Bond Framework will be made publicly available and published on the company's website.

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