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Summary

Use of proceeds: We confirm that the planned eligible projects for the use of funds derived from this bond issuance are well aligned with the Green Bond Principles 2018 (GBP 2018). The category of eligible projects is *renewable energy*, which is in line with the GBP 2018 and have a positive environmental impact.

Project evaluation/ selection: In our view, the process of project evaluation and selection followed by the Company in its Green Bond Framework (GBF), which is applicable for this bond issuance, is in line with what is stated in the GBP 2018 and fully complies with what is expected from the market. However, the described procedure of eligible projects’ evaluation and selection has some room for improvement, namely (1) creation of the collegial body responsible for the evaluation and selection of projects with a clear description of the processes in a separate internal regulation (2) assignment of a separate ecological officer or internal ecological auditor with the duties related to the evaluation and selection of projects in order to avoid any conflicts of interests (3) implementation of quantitative targets for the evaluation and selection of projects.

Management of proceeds: We confirm that the management of proceeds expected from this bond issuance is in line with the GBP 2018 taking into account current state of green finance practices in Russia. The management of proceeds is characterized by handling the funds through a separate account (“special pledge account”) of the SPV, which is completely independent from the Company and is obliged to manage and control all cash flows from the issue, including compliance with the GBF, bond prospectus and MOEX listing rules for green bonds. To summarize, there are several “lines of defense” for managing the bond’s proceeds and their allocation, represented by the external independent institutions (including, issuer itself (SPV holder) and Representative of Bond Owners (RBO)) which creates a solid ground for the allocation of funds specifically to the eligible green projects.

Reporting: The Company is planning to report both on (1) *Use of proceeds* and (2) *Environmental impact*. The reporting is planned to be published by the issuer at least annually and until the moment when an amount equivalent to the total volume of proceeds from the green bond issuance is completely invested in the eligible green projects, or in case of any significant changes. Use of proceeds reports will include at least: (1) List of approved eligible green projects financed through the green bonds proceeds; (2) The balance of the unallocated amount of the net value of green bonds proceeds. Environmental impact reports will include at least: (1) Electricity generated from renewable sources (kWh); (2) Reduction/prevention of greenhouse gas emissions (tons of CO₂). Therefore, we consider that the described procedure of reporting for this bond issuance is in line with the GBP 2018. However, we see the room for improvement, namely: (1) additional external verification of the Use of proceeds and Environmental impact reporting performed by independent experienced company.

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Table 1. Green bonds issuer

Name of the issuer	LLC "SFC RuSol 1"
Industry of the issuer	Specialized financial company
Country of the issuer	Russian Federation
Name of the holding company	Sun Projects 2 LLC
Industry of the holding company (h.c.)	Development of solar power plants
Country of the holding company (h.c.)	Russian Federation
Credit rating (issuer) (national scale)*	eA+(RU) (class A bonds) eBBB+(RU) (class B bonds) NA (class C bonds) (ACRA, Moscow)
Credit rating (issuer) (national scale)*	No
Credit rating (issuer) (international scale)	No
Credit rating (h.c.) (national scale)*	No
Credit rating (h.c.) (international scale)	No
ESG Rating	No

Source: RAEX-Europe based on data from Sun Projects 2 LLC, related companies, ACRA Rating Agency and open sources
* National scale of the Russian Federation

Table 2. Green bonds issue

Registration number	<ul style="list-style-type: none"> 6-01-00514-R 6-02-00514-R 6-03-00514-R
Registration date	14.11.2019
Registration authority	Central Bank of Russia (CBR)
Issuance date (planned)	06.02.2020
Country of the issuance	Russian Federation
Bond type (according to bond prospectus)	Documentary interest-bearing non-convertible structured bearer bonds, with collateral, placed by private subscription
Bond type (according to green bond principles*)	Green Project Bond*
Nominal value	RUB 5,7 bn
Maturity	10 years
Coupon	Floating coupon rate**: <ul style="list-style-type: none"> DGO index + 1,5%; DGO index + 5,5%; DGO index + 8%;
Stock exchange	Moscow Exchange (MOEX)
Green section of Stock exchange	Yes (Sustainability Sector)
Underwriter	PJSC Sovcombank
Green bonds underwriter's experience	No
Presence of Green Bonds Framework	Yes ¹

Source: RAEX-Europe based on data from Sun Projects 2 LLC, related companies, Moscow Exchange and open sources

* Second party's estimate

**DGO index - index calculated by the regulator of the electricity generation and capacity market of the Russian Federation and used to determine the tariff for the electricity generated by the solar power plants (calculated as an average annual yield of 10-year bonds of the Russian Federation).

1 Introduction

The group of companies **Solar Systems LLC** (registered in 2014) (further referred to as "**the Developer**") is one of the largest producers of solar energy in Russia. The Developer' activity is focused on design, construction and operation of solar power plants, production and sale of electricity and power generated by solar power plants. The activities of the Developer are conducted primarily in Russia: the company has several subsidiaries in the Russian regions as well as one subsidiary in Kazakhstan. Solar Systems group of companies specializes on construction of new solar plants, managing operating solar plants, sale and distribution of produced energy and other services, related to renewables.

As of January 2020, the Developer has operating solar power plants (SPPs) in three Russian regions: Astrakhan region, Samara region, Stavropol kray. By the end of 2020 the Developer is planning to launch new power plants in Volgograd region (four stations), Republic of Bashkortostan (two stations) and Stavropol kray. The total installed contracted electricity power capacity is expected to reach 365 MW by end-2020, while output for 12 months of operation is expected to reach 438 515 MW*h per year by year-end 2020 (see graph 1, also see Section 5 of this Second Opinion Report).

Among other projects, Solar Systems developed two solar power plants in Astrakhan region with total installed capacity of 30 MW which are structured as Sun Projects 2 group of companies and consists of **Sun Projects LLC (Project company №1)**, **Sun Projects 2 LLC (Project company №2)** (together referred to as "**the Group**" or "**Project Companies**").

All 100% of the electricity produced by the Group belongs to the solar type of renewable energy.

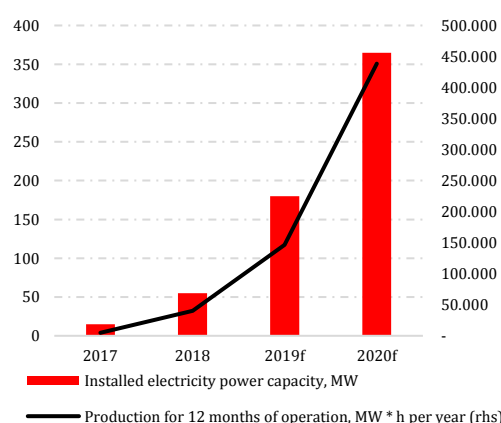
San Projects 2 LLC (Project company №2), has implemented a Green Bond Framework (GBF) (officially named as "*The policy in the sphere of green financing*")² aimed at providing green bond issuance guidance for the company's green bonds issuing activity. Specifically, the company stated that this GBF is applicable for all issues of bonds by the company, as well as its subsidiaries, affiliates and dependent parties. The issues also include those structured by means of securitization of claims to the companies of the Group. In particular, there is planned issue of the documentary interest-bearing non-convertible structured bearer bonds,

¹ <http://www.sfo-rusol-1.ru>

² <http://www.sfo-rusol-1.ru>

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Graph 1: The Group's key production indicators


Source: RAEX-Europe based on information, provided by Solar Systems LLC, related companies and open sources

Table 3: The key financial indicators of the Sun Projects LLC and Sun Projects 2 LLC* according to the Russian Accounting Standards, RUB th

Indicator	2017	2018
San Projects LLC		
Assets	1 580 638	1 665 319
Equity and reserves	(128 497)	141 564
Long-term liabilities	1 440 000	1 311 655
Short-term liabilities	269 335	212 100
Revenues	253 073	660 901
Cost of sales	(148 555)	(173 452)
Profit from sales	104 518	487 449
Loss for the year	(19 488)	270 061
San Projects LLC 2		
Assets	895 772	1 478 173
Equity and reserves	(197 461)	(126 480)
Long-term liabilities	-	1 383 784
Short-term liabilities	1 093 233	220 869
Revenues	-	430 267
Cost of sales	-	(164 095)
Profit from sales	-	262 275
Loss for the year	(184 199)	70 981

Source: RAEX-Europe based on information, provided by the Group, related companies *These companies are the sources for the cash flow for the repayments on the bonds issues

with collateral, placed by private subscription. The bonds are securitized by collateral represented by the (1) accumulated credit claims on the accounts pledged by the Group to the Issuer as part of the provision of loans and (2) property of the Group provided by the Project companies to the Issuer under the Loan Agreements, as well as a pledge of rights under the Issuer's bank account agreement³.

According to the credit risk assessment⁴, the issuer and the issue are exposed to the following credit risks: the key credit risk of this particular issue is the risk of the failure to fulfill contractual obligations under the Loan Agreements between the Issuer and the Group. Specifically, the risks arise from the moderate level of key financial indicators of the project companies, low quality of the covenants protection scheme. At the same time, there are several factors supporting the credit quality, namely absence of construction related risks, regulatory support, long-term contracts with the major companies of the market, quality of the used technologies, etc.

The Group and related companies are planning to include this issue into the Sustainability Sector of the Moscow Exchange; therefore, the compliance with the **Green Bond Principles 2018** (GBP 2018) developed by the International Capital Market Association (ICMA) is obligatory for this particular issue due to the MOEX listing rules acting from August 2019. These bonds will be issued by a separate independent company - **SFO RuSol 1 LLC**, which operates as a special purpose vehicle (SPV) founded by the third party **Trewetch Group**⁵, in order to manage the proceeds from the issue and have an additional mean of control under the funds allocation. The specialized managing company **Trewetch Group** will monitor the distribution of funds in accordance with the bonds prospectus.

According to the Group's GBF, the equivalent amount of proceeds from this bond issuance will be used for financing and refinancing the projects, related to the production of **electrical energy from renewable sources** (mostly solar energy). These types of projects, in our opinion, fall under the following GBP 2018 category of eligible Green Projects:

1. Renewable energy.

³ Public disclosure of the issue information <http://www.e-disclosure.ru/portal/files.aspx?id=37931&type=7>

⁴ See report from ACRA Rating Agency <https://www.acra-ratings.ru/about/news/1258>

⁵ **Trewetch Group** is the financial infrastructure company, providing different services on the financial market of Russia, including SPVs creation and management, mortgage agent and others: <http://en.trewetch-group.ru/about>

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Table 4: Key characteristics of the preliminary eligible projects (for the issues 6-01-00514-R, 6-02-00514-R, 6-03-00514-R)

Name of the project	Characteristics of the projects (SPP*)
Zavodskaya SPP	<ul style="list-style-type: none"> Operating SPP in Astrakhan region Start of operations: 2017 Installed capacity: 15 MW Annual electricity production: 21 th MWh/year
Promstroymaterialy SPP	<ul style="list-style-type: none"> Operating SPP in Astrakhan region Start of operations: 2018 Installed capacity: 15 MW Annual electricity production: 21 th MWh/year
Samarskaya SPP 2	<ul style="list-style-type: none"> Operating SPP in Samara region Start of operations: 2018-2019 Installed capacity: 75 MW Annual electricity production: 90,0 th MWh/year
Staromarievskaya SPP	<ul style="list-style-type: none"> Operating SPP in Stavropol region Start of operations: 2019-2020 Installed capacity: 100 MW Annual electricity production: 130,4 th MWh/year
Kalmykskaya SPP 1	<ul style="list-style-type: none"> Operating SPP in the Republic of Bashkortostan Start of operations: 2020 Installed capacity: 25 MW Annual electricity production: 33,5 th MWh/year
Volgogradskaya SPP 1	<ul style="list-style-type: none"> Operating SPP in the Volgograd oblast Start of operations: 2020 Installed capacity: 90 MW Annual electricity production: 108,5 th MWh/year
Oktyabrskaya SPP	<ul style="list-style-type: none"> Operating SPP in Astrakhan region Start of operations: 2020 Installed capacity: 15 MW Annual electricity production: 21 th MWh/year
Peschanaya SPP	<ul style="list-style-type: none"> Operating SPP in Astrakhan region Start of operations: 2020 Installed capacity: 15 MW Annual electricity production: 21 th MWh/year

Source: RAEX-Europe based on information, provided by Solar Systems LLC, related companies

*SPP – solar power plant

Table 5: Use of proceeds categories and criteria

Use of proceeds category	Criteria for eligible projects
Renewable energy	<ul style="list-style-type: none"> Acquisition, construction and operation of the solar energy projects Development, construction or production of components for renewable energy projects Eligible green projects can be selected from the list of the Developer's projects (including any subsidiaries and joint ventures) Eligible green projects should have established quantitative targets, such as reduction of CO₂ emission and / or generating electricity from renewable sources The Group can consider refinancing of the Developer's investments or bank financing carried out 3 years before the date of placement of green bonds as the eligible green projects

Source: RAEX-Europe based on GBF of Sun Projects 2 LLC

2 Alignment with the green bond principles

In this section, we assess the alignment of the GBF provided by the Group/related companies and the corresponding bond issue (registration numbers: 6-01-00514-R, 6-02-00514-R, 6-03-00514-R) with the GBP 2018. At the same time, we assess the framework's credibility, in respect to the Group's and related companies description of every section.

According to our bond issuance assessment, the eligible projects for the **use of proceeds** are well aligned with the GBP 2018 and fall into the **renewable energy** category, in line with the eligible Green Projects stated in the GBP 2018.

The Group has also confirmed that with the equivalent amount of the funds from this specific bond issuance (registration numbers: 6-01-00514-R, 6-02-00514-R, 6-03-00514-R), it is planning to finance (refinance) the following projects (but not limited to)(Table 4):

1. *Zavodskaya SPP;*
2. *Promstroymaterialy SPP;*
3. *Samarskaya SPP 2;*
4. *Staromarievskaya SPP;*
5. *Kalmykskaya SPP 1;*
6. *Volgogradskaya SPP 1;*
7. *Oktyabrskaya SPP;*
8. *Peschanaya SPP.*

This list can be modified or expended during the bonds duration period. For avoidance of any doubt, the Group will provide the final list of projects in the first report after a year of the bonds issue. However, the Group and the Developer confirmed that 100% of the issue net proceeds (or an equivalent amount) will be used to finance / refinance the projects related to the renewable energy; and the issuer will report annually on the use of proceeds (see below). Moreover, overall Group's activity is related only to the "**commercially efficient renewable energy projects**".

All of these projects are solar power plants with a total installed capacity of 365 MW and annual electricity output of 446 th MWh/year. Stations are located in Astrakhan region, Samara region, Stavropol region, Republic of Bashkortostan, Volgograd oblast of Russia, and will increase the share of the renewable energy in the total regional electricity production (see Section "Impact of proceeds from the Green Bond issuance" of this Second opinion).

The Developer also clarified that all eligible projects should satisfy certain qualitative criteria, which include, but are not limited to, the "**reduction of**

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CO₂ emission and / or generating electricity from renewable sources" (see Table 5).

The Group and the Developer also stated that an amount equivalent to the total net proceeds⁶ from each green bond issuance will be used to finance or refinance projects directly related to the production of electricity from the renewable sources.

The process for evaluation and selection of projects is also in line with the GBP 2018 guidelines. In the current version of the Group's GBF, the process is determined as *internal verification* of eligible projects for compliance with the established criteria (see Table 5). The internal verification shall be performed by the representatives of the business development department, the financial department and the sustainable development department. In addition, for each eligible project the Group\the Developer will verify the compliance with local regulations in relation to the environmental and social risks. Moreover, the Group's\the Developer's employees from the technical/engineering and financial departments have deep expertise and experience in the SPPs construction and management, and therefore can perform the analysis of the eligible green projects on a proper basis.

In our view, the process followed by the Group and the Developer complies with market expectations and local best practices. However, the described procedure of eligible projects' evaluation and selection has some room for improvement, namely (1) creation of the collegial body responsible for the evaluation and selection of projects with a clear description of the processes in a separate internal regulation (2) assignment of a separate ecological officer or internal ecological auditor with the duties related to the evaluation and selection of projects in order to avoid any conflicts of interests (3) implementation of quantitative targets for the evaluation and selection of projects.

The management of proceeds is characterized by handling the funds through a *separate account* ("*special pledge account*") of the SPV, which is completely independent from the Group and is obliged to manage and control all cash flows from the issue, including compliance with the GBF, bond prospectus and MOEX listing rules for green bonds.

The Group has also clearly disclosed that the funds unallocated at the moment of the issuance, will be temporarily kept on the SPV's accounts or on the accounts of the Group, until the moment when they can be fully allocated to the eligible green projects, which satisfy the internal criteria of the Group.

⁶ Net of all applicable commissions, duties, taxes, expenses for arranging the issue and reserves formation.

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The SPV holder – **Trewetch Management** – has deep experience in structured financing on the Russian financial market and, therefore, can be considered as a reliable company to control the proceeds.

The accounting of cash from the green bonds proceeds will be performed by the “*Issue Agent*” (represented by **PJSC Sovcombank**⁷), which can be considered as an additional mean of control. The Bank is planning to issue own green bonds in the nearest future and is well aware of green bonds principles and practices. In particular, in September 2019 the Bank becomes the first among Russian banks signatory of the “*Principles of Responsible Banking*” of the Financial Initiative of the United Nations Environment Program (UNEP FI)⁸. Therefore, we consider the involvement of the Bank in the bonds issuance as a positive factor. Also, according to the current regulation of the Russian financial market, for this specific bond issue, the disposal of the funds will be carried out under the supervision of a special institution called the “*Representative of Bond Owners*” (RBO) (represented by the **Joint-stock company “Transfingroup” Asset Management**⁹), which has to supervise the allocation of funds in relation to the bond holders’ interests. Both organizations can be considered as reliable for the additional control under the proceeds allocation.

The distribution of bonds proceeds between the entities, belonging to the Developer, will be monitored and controlled by the Group’s management. An additional control under the management of proceeds will be supported by the issuer’s and the Group’s internal policies, including the GBF, current listing rules of MOEX (including rules for the “sustainability sector”), as well as general rules and procedures of investors’ protection in the Russian Federation.

To summarize, there are several “lines of defense” for managing the bond’s proceeds and their allocation, represented by the external independent institutions (including, issuer itself (SPV holder) and RBO) which creates a solid ground for the allocation of funds specifically to the eligible green projects.

We consider that the management of proceeds is in line with the GBP 2018 taking into account the current status of green finance practices in Russia.

The Group confirmed that it is planning to **report** both on (1) Use of proceeds and (2) Environmental impact. The reporting is planned to be published by the Group at least annually and until the moment when an

⁷ **Sovcombank** is the 12th largest Russian bank according to “Expert RA” Rating Agency Ranking, the Bank has actual credit ratings according to the international scale (S&P/Fitch/Moody’s: BB/BB+/Ba2) and the national scale (ACRA/Expert RA: A+/ruA), the bank is privately owned: <https://sovcombank.ru/en/about>

⁸ See Principles for Responsible Banking: <https://www.unepfi.org/banking/bankingprinciples/>

⁹ Joint-stock company “**Transfingroup**” **Asset Management** is one of the largest asset management company on the Russian market, included in the TOP 10 companies for the value of funds under management and having reliability rating according to the national scale (A+ from Expert RA rating agency): <https://tfgr.ru/>

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amount equivalent to the total volume of proceeds from the green bond issuance is completely invested in the eligible green projects, or in case of any significant changes. The Group is planning to publish the information on the distribution of the funds on its website and in the Sustainable Development Reports. These reports will include at least the following information:

1. **List of approved eligible green projects** financed through the green bonds proceeds, including the allocated amounts and full description of the legal entities related to the projects;
2. **The balance of the unallocated** amount of the net value of green bonds proceeds.

The Group is also committed to publish additional information, case studies or examples of individual projects, to the extent it is necessary and taking into account confidentiality considerations.

Environmental impact reports and specific environmental impact indicators will be published by the Group for each eligible project or for the Developer's eligible projects, financed through the green bonds proceeds. These reports will include at least the following information:

1. **Electricity generated from renewable sources** (kWh);
2. **Reduction/prevention of greenhouse gas emissions** (tons of CO₂).

Therefore, we consider that the described procedure of reporting is in line with the GBP 2018. However, we see the room for improvement, namely: (1) additional external verification of the Use of proceeds and Environmental impact reporting performed by independent experienced company.

3 Environmental performance and governance

Solar Systems LLC is one of the market leaders in the solar energy production and distribution, as well as solar technologies in Russia. The total installed contracted capacity of solar power plants of the Developer in Russia is equal to 365 MW (taking into account capacity, which is planned to be completed by the end of 2020). Currently the Developer has constructed 180 MW of projects for the wholesale electricity market of the Russian Federation.

As of January 2020, Solar Systems LLC has operating solar power plants (SPPs) in three Russian regions: Astrakhan region, Samara region, Stavropol kray. By the end of 2020 the Developer is planning to launch new power plants in Volgograd region, Republic of Bashkortostan, Stavropol kray (three additional blocks for already operating station).

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The Group operates two solar plants with total capacity of 30 MW in Astrakhan region, developed by Solar Systems LLC.

The Group declares in its GBF that it supports the **UN Global Compact principles and sustainable development goals**:

- **Goal 7:** Affordable and clean energy;
- **Goal 8:** Decent work and economic growth;
- **Goal 9:** Industry, innovation and infrastructure;
- **Goal 11:** Sustainable cities and communities;
- **Goal 12:** Responsible consumption and production;
- **Goal 13:** Climate action.

The Group's declared mission is *"to develop renewable energy and make it understandable and accessible for Russian and international consumers"*, while key strategy of the Group is to *"increase its share on the renewable energy electricity market of Russia and foreign countries"*.

At the same time, the Group is not a signatory of any sustainable initiatives or principles, as well as does not have any ESG- or Environmental-related documented policy or strategy with clear goals or specific KPIs; however, the Developer has clear publically available plans for the construction and operations of SPPs in different Russian regions.

The Group has no corporate governance procedures, documents and strategies, dedicated to the mitigation of the environmental and social risks. However, it was stated that the compliance with the all obligatory national regulations, related to the environmental and social risks, are day-by-day practice.

At the moment, the Group has no sustainable, social or environmental **reports** on a group level and has no plans to publish such consolidated reports in the nearest future. However, for the *Sun Projects LLC* and *Sun Projects 2 LLC* (project companies) there are following reports publically available: *"Electricity consumption on operating needs for 2018"*¹⁰. In addition, due to the absence of the air pollution and fuel used in the technological process in 2018, the reports *"Emissions of pollutants"* and *"Used fuel at power plants"* were not published. These types of reports will be published for every legal entity (solar power plant) as soon as operations start.

In November 2018 the companies *Sun Projects LLC* and *Sun Projects 2 LLC* received **awards** in the nomination "Best renewable energy project" at the International Conference "Eurasian Economic Integration", by the Eurasian Development Bank¹¹. In addition, the Developer is a member of Russia Renewable Energy Development Association¹², that supports the

¹⁰ <http://solarsystems.msk.ru/information/#sunprojects>

¹¹ <http://solarsystems.msk.ru/press-cents/news/1340/>

¹² <https://rreda.ru/en>

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renewable energy industry in Russia. The Developer also confirmed that it uses the best available technologies with the highest possible environmental standards, for the production of electricity on its SPPs.

However, the Group has no any *international* environmental-related certificates, audit reports or awards, as well as it is a not member of any international unions or associations. The Group is not planning to have any ESG ratings or rankings in the future.

The Group has the following environmental and sustainable development target for the implementation of the projects linked to the proceeds of this specific bond issuance: **affordable and clean energy**.

The full alignment with the Sustainable Development Goals (SDG) of the issuer is described in the Section 6 (see below).

4 Risk exposure and mitigation

In our view, the operations of the Group exposed to different environmental, social and governance risks (ESG) which could have negative material effect on the company, environment and society, as well as the eligible projects:

Table 6. ESG risks exposure and mitigation

Type of risks	Risk mitigation actions and policies
Environmental risks ¹³ :	<p>The company provided full detailed, audited environmental impact assessment and mitigation documents for the following projects:</p> <ul style="list-style-type: none"> • Zavodskaya SPP (Astrakhan region); • Promstroymaterialy SPP (Astrakhan region); • Samarskaya SPP (Samara region); • Staromarievskaya SPP (Stavropol region); • Kalmykskaya SPP 1 (first block) (Republic of Bashkortostan); <p>Most part of the negative environmental impact related to the construction stage of the project. Environmental impact related to the operating stage of the project is negligible in case of proper work of the SPP (trouble-free operation).</p> <p>The Developer at the moment has no environmental impact assessment and mitigation documents for Volgogradskaya SPP 1 (second block) (Volgograd region) and other potential eligible objects. However, since the procedure of the environmental impact assessment and listing of the mitigation actions are obligatory for this type of construction in Russia, we do believe that such information will be available in future for all eligible projects.</p>
Air pollution and CO ₂ emission	<p>The company has clear audited calculation of the air pollutants for the construction period, as well as list of mitigation actions, including establishing the limitations for the air pollutants, requirements for the machines and cars used, subcontractors, etc.; as well as calculation of the "negative environmental impact charges".</p> <p>On the operation stage for the solar power plant, there is no fuel combustion; therefore, there is no waste, emissions of pollutants into the atmosphere / water bodies or other negative environmental impacts.</p>
Water and soil pollution	<p>The company has clear audited list of all waste types and volumes, generated at the construction stage, that can be harmful for soil, superficial and groundwater. The company has clear procedure for the waste management and calculation of the "waste disposal fees", as well as full list of actions for the protection and rational use of surface and groundwater, protection of soil resources.</p> <p>On the operation stage for the solar power plant, there is no fuel combustion; therefore, there is no waste, emissions of pollutants into the atmosphere / water bodies or other negative environmental impacts.</p>
Deforestation and desertification	<p>The company has clear audited description of the land plot(s), its usage and environmental impact on the construction stage, as well as measures for the protection and rational use of land resources.</p>
Biodiversity decline	<p>The company has clear audited description of the objects of fauna and flora on the used land plot(s), as well as measures for the protection of local plants and fauna.</p>
Other	<p>The company confirmed that in order to ensure proper control over the level of anthropogenic impact in all aspects, the adequate environmental monitoring will be performed (including operating stage of the projects).</p>

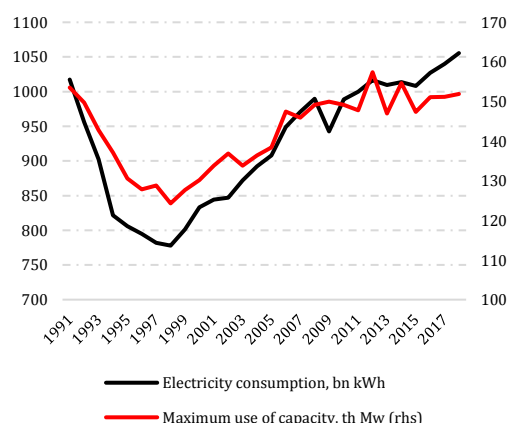
¹³ Environmental risks, related to the specific preliminary eligible projects.

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Social risks:	
Labor practices	All HR policies of the Group and related companies including <i>Labor practices</i> have to comply with local and global regulations on industrial health standards.
Occupational health & safety (OHS)	All HR policies of the Group and related companies including <i>occupational health and safety</i> have to comply with local and global regulations on industrial health standards.
Local communities protection	For all projects of the Developer and related companies, including eligible projects, public hearings were performed. In addition, the Developer and related companies are obliged to perform such public hearings for all projects in the future according to the local regulation.
Governance risks:	
Risks of misuse of the funds from the green bonds issue	For this specific bonds issue, there are several tools of controls under the use of proceeds (see description on pages 5-7 of this Second opinion).
Regulatory risks¹⁴	<ul style="list-style-type: none"> • Determined regulated tariff for the electricity capacity (<i>more than 93% of total revenues of the project companies</i>) within the framework of the government program for support of the renewable energy. The project companies have long-term (ten years) “energy capacity provision agreements” for the capacity purchase by large companies. • Presence of the independent long-term contracts for the supply of electricity and capacity for each project company valid till 30 November 2030.
Corporate structure risks¹⁵	There are internal documents (including articles of association) that have clear tools and mechanisms, mitigating all major risks related to the corporate structure, including risks related to the specific bonds issue, as well as full description of the risks mitigation in the bond issuance documents .
Legal risks	All legal risks can be mitigated by the internal legal service of the Developer’s and related companies , and if needed with the use of external legal support.
Reputational risks	All reputational risks can be mitigated by the PR-service of the Developer’s and related companies making all necessary efforts.

Graph 2: Electricity energy consumption in Russia



Source: RAEX-Europe based on data from Report on the functioning of the Unified Energy System of the Russian Federation in 2018

5 Impact of proceeds from the Green Bond issuance

The proceeds from the bonds issued within the approved Group’s GBF will be allocated to projects, which must comply with the use of proceeds category “renewable energy” and have to meet the following criteria (see Table 5):

- Acquisition, construction and operation of the solar energy projects;
- Development, construction or production of components for the renewable energy projects;
- Eligible green projects can be selected from the list of the Developer’s projects (including any subsidiaries and joint ventures);
- Eligible green projects should have established quantitative targets, such as **reduction of CO₂ emissions and/or generating electricity from renewable sources**;
- The Group can consider refinancing of the Developers’s investments or bank financing carried out three years before the date of the placement of green bonds as eligible green projects.

Total **electricity energy** consumption in Russia increased by 1,3 times over the last twenty years after the significant slowdown, related to the economic crisis of 1990s (see graph 2), and expected to continue steady growth in the following years.

The overall distribution of the *installed capacity* of all power plants of the united power system of Russia as of 31 December 2018 by types of power

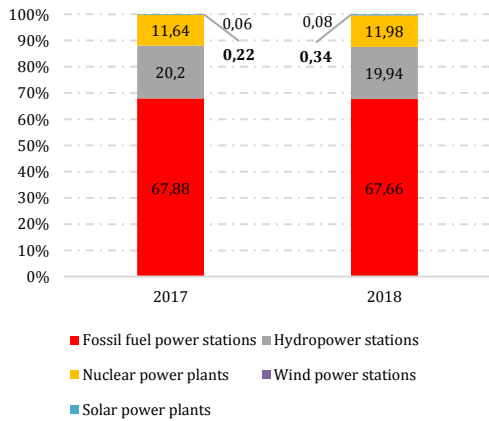
¹⁴ Here Regulatory risks refer to the risks that unexpected and unfavorable changes in the Russian regulation of the electricity market can harm the financial stance of the operating companies of the Developer and in particular – **the eligible projects** (SPPs).

¹⁵ In this case, corporate structure risks related to the risks of the shareholders conflicts.

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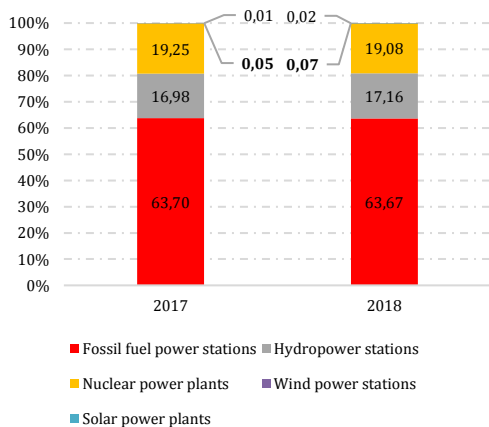
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Graph 3: The structure of the installed capacity (MW) of the power plants of the united power system of Russia as of end 2017 and 2018, by type of power stations, %



Source: RAEX-Europe based on data from Report on the functioning of the Unified Energy System of the Russian Federation in 2017/2018

Graph 4: The electricity output (gross, kWh) in the United power system of Russia in 2017 and 2018, by type of power stations, %



Source: RAEX-Europe based on data from Report on the functioning of the Unified Energy System of the Russian Federation in 2018

stations was the following: 67,7% - fossil fuel PSs; 19,9% - hydropower PSs; 12% - nuclear PSs; less than 1% - wind and solar PSs. The share of the **solar power plants** in the installed capacity was negligible at 0,34% (see graph 3). As of the same date the majority of the *electricity output* (gross, kWh) belongs to the fossil fuel PSs (63,7%), followed by hydropower PSs (17,2%) and nuclear PSs (19,1%). The share of SPPs in the electricity output (gross, kWh) was only 0,07% (see graph 4). The shares of SPPs in both metrics are expected to grow in the following years, due to the large number of launched projects and the government support of renewable energy. Specifically, the current government program of the renewable energy support is acting until 2024, and expected to be continued after this year¹⁶. In addition, the Russian government ratified the Paris agreement in September 2019, which should have indirect positive impact on the renewable energy development in the country.

On the regional level¹⁷, the current shares of electricity produced by all the SPPs (belonging to the Developer and other companies, producing electricity from solar energy) also remain below 1% as of end 2018: 0,47% for South UES; 0,06% for Ural UES and 0,03% for Middle Volga UES (see graph 5).

The growth of the capacity of solar plants developed by Solar Systems LLC (including eligible green projects) will increase the share of the electricity produced from the solar energy: the share of the full installed capacity of all **operating and planned** projects in the local united energy systems in Russia is expected to reach 2,3% for South UES; 0,1% for Ural UES and 0,6% for Middle Volga UES.

Therefore, proceeds from the green bond issuance will have a positive environmental effect on the regional and national “status-quo” due to increase of the share of renewable energy (specifically solar) in the national and regional output of electricity.

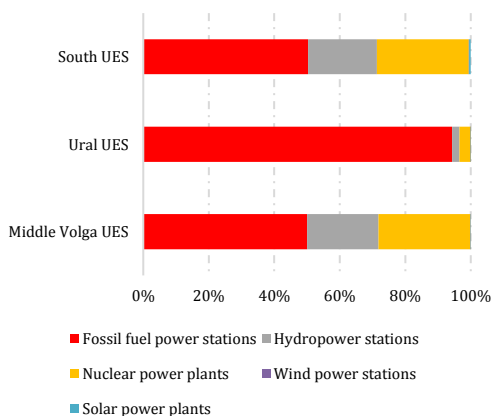
¹⁶ <https://rg.ru/2019/10/01/podderzhku-alternativnoj-generacii-planiruetsia-prodlit-do-2035-goda.html>

¹⁷ Here and below calculated for the local united energy systems, where the *eligible green projects* of the Developer are located. See more about the definition of *local united energy systems in Russia*: <https://so-ups.ru/index.php?id=glossary>

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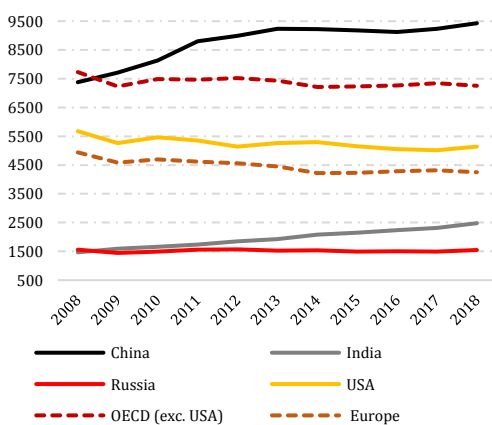
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Graph 5: The electricity output (gross, kWh) by local united energy systems (UES)* in 2018, by type of power stations, %



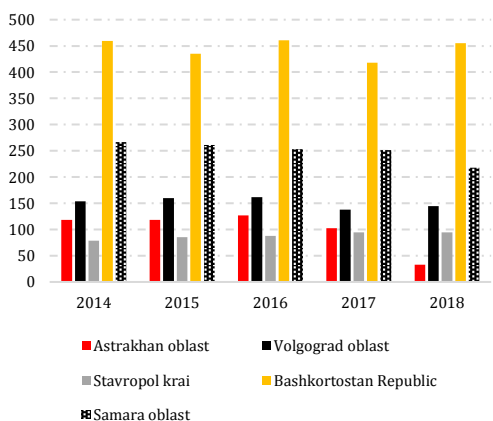
Source: RAEX-Europe based on data from Report on the functioning of the Unified Energy System of the Russian Federation in 2018
*Only for the local united energy systems, where the eligible green projects are located

Graph 6: Carbon dioxide emissions per countries and macro-regions, m tons CO₂



Source: RAEX-Europe based on data from BP Statistical Review of World Energy 2019

Graph 7: Air pollution from “stationary objects” in the regions of eligible projects location, th tons



Source: RAEX-Europe based on data from Rosstat

The total anthropogenic **greenhouse gas emissions** in Russia, excluding land use and forestry, in 2017 (the most recent data) amounted to 2,2 bn tons of CO₂-eq., which corresponds to 67,6% of the total emissions of 1990 year, which is the base year of the Paris Agreement (see graph 6)¹⁸. This decrease was mostly achieved due to the recession in the Russian economy in the 1990s while, over the last 10 years, the level of greenhouse gas emissions has remained almost unchanged.

The anthropogenic greenhouse gas emissions are not correctly calculated for all Russian regions. However, the overall air pollution from “stationary objects” and road transport can be used as a proxy, for the CO₂ emission assessment on the regional level. The regions where the eligible projects are located – Astrakhan region, Samara region, Stavropol region, Volgograd oblast and Republic of Bashkortostan – accumulate around 6% of the overall air pollution from “stationary objects” in Russia and 10% of overall air pollution from road transport for the 2014-2018 period (see graphs 7-8).

The Developer expects that the total effect from the operating activity of all eligible projects (eight SPPs) will have the following positive environmental effect on the CO₂ emissions on the regional and national level:

- Total reduction of CO₂ emissions from operating eligible projects as of 1 October 2019: 33 065 tons CO₂;
- Planned reduction of CO₂ emissions from all eligible projects as of end 2029: 639 575 tons CO₂.

The Developer has its **own internal calculation** for each project in terms of electricity production from solar energy, installed capacity and carbon footprint reduction (reduction of CO₂ emissions) per project, among other technical and financial information. The internal carbon footprint reduction calculation is based on the comparison of the CO₂ emissions from the electricity production of electricity power plants using coal vs solar power plants with equal electricity production volumes. Such calculation is performed for each Developer’s SPPs for a long time and used in the business-plans and presentations for investors.

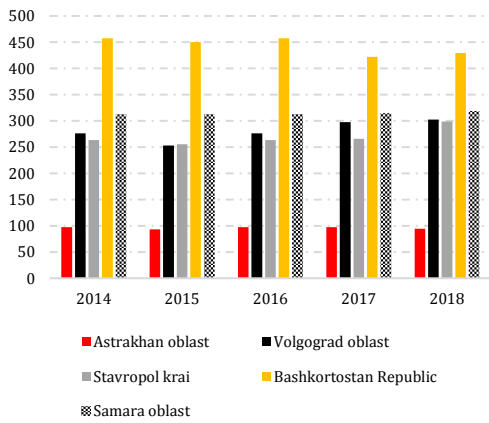
We consider the applied model and performed estimations as adequate, since the Developer and its employees have proper qualification and experience in Russian energy sector, including renewables, as well as experience for the calculation of the reduction of CO₂ emissions per project, which is confirmed by the internal presentation for investors. However, we consider that an external

¹⁸ The graph 6 represents data from “BP Statistical Review of World Energy 2019”, in the text we refer to the Institute of Global Climate and Ecology (Russia). The BP data are different from the Institute’ data, since BP does not take into account all greenhouse gases, but only CO₂ emissions associated with the consumption of coal, oil and gas. See Report from the Analytical Center for the Government of the Russian Federation: “Ecology and economy: dynamics of the country’s air pollution ahead of ratification of the Paris Agreement” from August 2019: <http://ac.gov.ru/files/publication/a/23713.pdf>

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Graph 8: Air pollution from road transport in the in the regions of eligible projects location, th tons



Source: RAEX-Europe based on data from Rosstat

independent environmental audit of the applied model and per projects estimation as a room for improvement.

Therefore, proceeds from the green bond issuance will have a positive environmental effect on the regional and national “status-quo” due to CO₂ emission decline.

6 Alignment of the eligible projects with the Sustainable Development Goals (SDG)

According to our opinion, the eligible projects are aligned with the following Sustainable Development Goals (SDG) (see Table 7):

Table 7. Alignment of the eligible projects with the Sustainable Development Goals (SDG)

SDG Goal	SDG Target	Description of the eligible projects, that supports the targets
7. Affordable and clean energy	7.1 By 2030, ensure universal access to affordable, reliable and modern energy services	Construction and performance of all eligible projects (preliminary eight SPPs) will lead to increase of the share of electricity produced from the renewable sources (solar energy) on the regional and on the national level.
	7.2 By 2030, increase substantially the share of renewable energy in the global energy mix	

Additional information:

This Second Opinion was based on the analysis of the information provided by the bond issuer, the Group and related companies. The following information was used:

- The Developer and subsidiaries’ financial reports according to the Russian accounting standards;
- The Developer’s financial statements according to the IFRS;
- The Developer and subsidiaries’ corporate governance documents and presentations for investors;
- Questionnaire provided by the Group;
- Green Bonds Framework (GBF) of the Group (officially named as “The policy in the sphere of green financing”);
- Report from the Analytical Center for the Government of the Russian Federation;
- Credit rating reports from ACRA Rating Agency (Russia);
- Expert RA Rating Agency (Russia) rankings;
- Reports on the functioning of the Unified Energy System of the Russian Federation in 2017 and 2018;
- Documents, describing the bonds issuance;
- Additional materials and answers provided by the Group and related companies;
- Additional analytical reports and media-information.

We consider the provided information reliable and sufficient for the Green bonds second opinion.

The analysis was performed by the employees of the Rating-Agentur Expert RA GmbH (Frankfurt am Main, Germany):

- Hector Alvarez, Associate Director;
- Vladimir Gorchakov, Associate Director.

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