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# **Star Energy Geothermal Salak, Ltd and Star Energy Geothermal Darajat II Limited**

## **Annual Green Bond Report 2021**



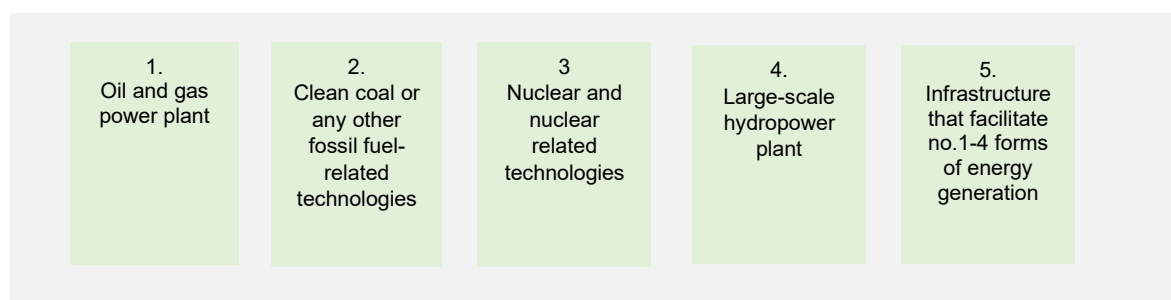
**November 2021**

# Star Energy Geothermal Salak, Ltd and Star Energy Geothermal Darajat II Limited

## a. Green Bond Framework Summary

Pillar	Framework
<b>Use of Proceed</b>	<ul style="list-style-type: none"> <li>• Geothermal Energy</li> <li>• Other asset category that are complimentary to geothermal energy generation or are comparable environmental benefit</li> </ul>
<b>Project Evaluation and Selection</b>	<ul style="list-style-type: none"> <li>• Agreed with Use of Proceeds criteria</li> <li>• Financial Compliance and Treasury Department propose the Use of Proceeds</li> <li>• Environmental and Social Impact Committee validate and confirm the eligibility</li> </ul>
<b>Management of Proceeds</b>	<ul style="list-style-type: none"> <li>• Use of Proceeds tracked via Green Bond register</li> </ul>
<b>Reporting</b>	<ul style="list-style-type: none"> <li>• Salak and Darajat is committed to publish information in a dedicated Green Bond Report, which shall be made available, on the company's corporate website (<a href="http://www.starenergy.co.id">www.starenergy.co.id</a>) on an annual basis</li> <li>• The Green Bond Report will be written on the basis of the company's Green Bond Register and provide the following information:               <ul style="list-style-type: none"> <li>✓ The total amount of outstanding Green Bonds</li> <li>✓ Examples of Eligible Green Assets financed or refinanced subject to confidentiality arrangements</li> <li>✓ Proportion of net proceeds allocated within each Eligible Green Asset category, as well as the balance of unallocated proceeds invested in liquid marketable instruments; and</li> <li>✓ Proportion of net proceeds used for new financing versus refinancing</li> </ul> </li> </ul>

## b. Excluded Use of Proceeds



## c. Summary

Overall, the proceeds of 2020 Green Bond has been fully and entirely used for

- i. the repayment of outstanding indebtedness under the Existing Senior Debt Facilities of Salak-Darajat Geothermal Assets;
- ii. the payment of expenses to be incurred as a result of the repayment of the Existing Senior Debt Facilities of Salak-Darajat Geothermal Assets, including the termination fees related to the existing interest rate swaps and loan repayment fees;
- iii. the funding of the Debt Service Reserve Accounts and Major Maintenance Reserve Accounts; and
- iv. general corporate purposes relating to the Darajat and Salak Geothermal Operations (including, but not limited to, our working capital requirements, future investments in power plants and other equipment, and other distributions of available cash in accordance with our distribution policies)

## Introduction

### a. Issuer Overview

Star Energy Geothermal Salak Ltd (“Salak”) and Star Energy Geothermal Darajat II Ltd (“Darajat”), both part of Star Energy Geothermal Pte Ltd (the “Group”), are leading geothermal energy producers in Indonesia.

Situated in Sukabumi, West Java province, Salak manages Indonesia’s largest geothermal field and is capable of producing 377MW of electricity. Located in Garut, also in West Java province, Darajat supplies geothermal energy and has an installed capacity of 271MW. Both Salak and Darajat geothermal fields are among the largest geothermal fields globally

Salak and Darajat geothermal power plant helps to reduce Indonesia’s overall carbon emissions. Indonesia’s energy mix shows that the national electricity grid is still heavily reliant on carbon-intensive electricity.

Salak and Darajat is an active supporter of various programmes in the environmental sector, as well as of the economic development of the community in its operational area. The company was awarded and certified many times for its environmental management and community empowerment, nationally and internationally.

Throughout the year, Salak and Darajat attained awards and certifications include among others:

- **Salak PROPER Gold** Award from the Indonesian Ministry of Environment and Forestry. PROPER's rating presents the Company's performance on how companies manage environmental and social aspects. PROPER inauguration was held on 8 January 2020 for period 2018-2019 and 14 December 2020 for period 2019-2020.
- **Darajat PROPER Green** Award from the Indonesian Ministry of Environment and Forestry. PROPER's rating presents the Company's performance on how companies manage environmental and social aspects. PROPER inauguration was held on 8 January 2020 for period 2018-2019 and 14 December 2020 for period 2019-2020.
- **Zero Incident** Award from West Java Labor Offices service for Salak periode 2011-2020
- **Zero Accident** Award from The Indonesia Ministry Of Employment for Darajat was received 25 June 2020.
- **P2HIV AIDS** award from The Indonesia Ministry Of Employment for Darajat was received 1 July 2020.
- Continue Implementation of Integrated Management System (IMS) and Certification of Environmental ISO 14001:2015, OHS Management System OHSAS 18001:2007 (will be upgrading to ISO 45001:2018), SMK3, ISO 50001:2018 Energy Management System, ISO 55001:2014 and ISO/IEC 17025:2017.

### b. Indonesian / Regional Energy Outlook

Proceeds of Bonds issued in accordance with the Framework will only be used in connection with assets with emissions of less than 100gCO<sub>2</sub>/kWh and 35 mgH<sub>2</sub>S/Nm<sup>3</sup> estimated carbon intensity. This compares favorably to the Indonesian national average emission factor for electricity of over 877g CO<sub>2</sub> per kWh in 2016.

Furthermore, as geothermal projects can have different negative environmental impacts, Salak and Darajat established a variety of programmes to demonstrate its high commitment to environmental protection. These programmes mainly cover the areas of water conservation, energy efficiency, waste reduction, and re-vegetation and help to eliminate or minimise unwanted side effects.

Indonesia's primary energy is dominated by coal energy. Referring to the Electricity Supply Business Plan (Rencana Usaha Penyediaan Tenaga Listrik 2019-2028 – the "2019-2028 RUPTL") shows the following national grid-mix breakdown in year 2020:

- Fossil fuels: 87.7%
- Hydroelectric: 6.1%
- Geothermal: 5.2%
- Other: 1.0%

### c. Inaugural Green Bond Issuance

Issuance Details											
Issuer	Star Energy Geothermal Salak, Ltd and Star Energy Geothermal Darajat II Limited.										
Notional	US\$320 million for 2029 Notes and US\$790 million for 2038 Notes										
Issue Price	100% of the principal amount of the Notes.										
Issue Date	October 14, 2020										
Maturity Date	April 14, 2029 for 2029 Notes and October 14, 2038 for 2038 Notes										
Coupon	3.25% for 2029 Notes and 4.85% for 2038 Notes										
ISIN	<table border="0"> <thead> <tr> <th><u>2029 Notes</u></th> <th><u>2038 Notes</u></th> </tr> </thead> <tbody> <tr> <td>Rule 144A Global Note:</td> <td>Rule 144A Global Note:</td> </tr> <tr> <td>ISIN: US85513LAA26</td> <td>ISIN: US85513LAB09</td> </tr> <tr> <td>Regulation S Global Note:</td> <td>Regulation S Global Note:</td> </tr> <tr> <td>ISIN: USG8438NAA57</td> <td>ISIN: USG8438NAB31</td> </tr> </tbody> </table>	<u>2029 Notes</u>	<u>2038 Notes</u>	Rule 144A Global Note:	Rule 144A Global Note:	ISIN: US85513LAA26	ISIN: US85513LAB09	Regulation S Global Note:	Regulation S Global Note:	ISIN: USG8438NAA57	ISIN: USG8438NAB31
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Listing	SGX-ST										

## The Green Bond Framework

### a. Use of Proceeds

We applied the entire proceeds of US\$1,110 million from the issues of the Notes towards the repayment of outstanding indebtedness under the Existing Senior Debt Facilities of Salak-Darajat Geothermal Assets, the payment of expenses to be incurred as a result of the repayment of the Existing Senior Debt Facilities of Salak-Darajat Geothermal Assets, including the termination fees related to the existing interest rate swaps and loan repayment fees, the funding of the Debt Service Reserve Accounts and Major Maintenance Reserve Accounts; and general corporate purposes relating to the Darajat and Salak Geothermal Operations (including, but not limited to, our working capital requirements, future investments in power plants and other equipment, and other distributions of available cash in accordance with our distribution policies)

### b. Project evaluation and selection

Since the proceed of 2020 Green Bond has been fully and entirely used, there was no project evaluation and selection in 2021 whether the proceeds of bond issuance was used toward refinancing eligible green or renewable energy assets.

### c. Management of Proceeds

We did not conduct monitoring whether the proceeds of bond issuance was used toward refinancing eligible green or renewable energy assets due to the proceed of 2020 Green Bond has been fully and entirely used.

As of 31 October 2021, the outstanding amount of Green Bond is US\$1,108,000,000.

#### d. Reporting

The followings are Salak latest indicator of environment impact:

Indicator	Description
CBI category:	Geothermal
Location:	Indonesia
Facility capacity (MW)	377
Total gross production of clean energy (MWh 2020)	3,130,890
Total net production of clean energy (MWh 2020)	2,928,484
Facility CO <sub>2</sub> emission (g/KWh)	93
Emission Factor Jamali (Ton CO <sub>2</sub> /MWh 2019)	0.87 <sup>1</sup>
Total CO <sub>2</sub> emission avoided (TCO <sub>2</sub> )	= (total gross production) *(facility CO <sub>2</sub> per unit production – Jamali average CO <sub>2</sub> per unit production) = -2,432,927.25
Facility Average H <sub>2</sub> S emission (mg/Nm <sup>3</sup> )	0.015
Total H <sub>2</sub> S emission (TH <sub>2</sub> S)	15,194.94

The followings are Darajat latest indicator of environment impact:

Indicator	Description
CBI category:	Geothermal
Location:	Indonesia
Facility capacity (MW)	271
Total gross production of clean energy (MWh 2020)	2,259,291
Total net production of clean energy (MWh 2020)	2,164,965
Facility CO <sub>2</sub> emission (g/KWh)	29
Emission Factor Jamali (Ton CO <sub>2</sub> /MWh 2019)	0.87 <sup>1</sup>
Total CO <sub>2</sub> emission avoided (TCO <sub>2</sub> )	= (total gross production) *(facility CO <sub>2</sub> per unit production – Jamali average CO <sub>2</sub> per unit production) = -1,900,131.17
Facility Average H <sub>2</sub> S emission (mg/Nm <sup>3</sup> )	1.79
Total H <sub>2</sub> S emission (TH <sub>2</sub> S)	3.537

<sup>1</sup> [https://gatrik.esdm.go.id/assets/uploads/download\\_index/files/96d7c-nilai-fe-grk-sistem-ketenagalistrikan-tahun-2019.pdf](https://gatrik.esdm.go.id/assets/uploads/download_index/files/96d7c-nilai-fe-grk-sistem-ketenagalistrikan-tahun-2019.pdf)