

## ASSESSMENT

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### Analyst Contacts

Anna Zubets-Anderson +1.212.553.4617  
VP-Senior Analyst  
anna.zubets-anderson@moody's.com

Matthew Kuchtyak +1.212.553.6930  
Analyst  
matthew.kuchtyak@moody's.com

Helen Francis +44.20.7772.5422  
VP-Sr Credit Officer  
helen.francis@moody's.com

Rahul Ghosh +44.20.7772.1059  
SVP - ESG  
rahul.ghosh@moody's.com

Jim Hempstead +1.212.553.4318  
MD-Utilities  
james.hempstead@moody's.com

### CLIENT SERVICES

Americas 1-212-553-1653  
Asia Pacific 852-3551-3077  
Japan 81-3-5408-4100  
EMEA 44-20-7772-5454

## Latvenergo AS

### Update to Green Bond Assessment



We are maintaining the GB1 (Excellent) Green Bond Assessment (GBA) on [Latvenergo AS's](#) (Latvenergo, Baa2 stable) aggregate €100 million senior unsecured fixed rate notes due June 2022, issued in June 2015 and April 2016. Following our review of Latvenergo's use of proceeds, ongoing disclosure and proceeds management practices, we are maintaining the transaction's overall weighted score at 1.00. We are not changing any factor scores at this time, given that all aspects of the transaction remain consistent with our initial expectations.

This report highlights findings from our review of Latvenergo's green bond report as contained in its 2017 Sustainability and Annual Report, and other relevant information incorporated in this report, as well as discussions with management. The report also covers the firm's independent internal audit report on the use of green bond funds that was published in January 2017.

Factor	Factor Weights	Score	Weighted Score
Organization	15%	1	0.15
Use of Proceeds	40%	1	0.40
Disclosure on the Use of Proceeds	10%	1	0.10
Management of Proceeds	15%	1	0.15
Ongoing Reporting and Disclosure	20%	1	0.20
Weighted Score			1.00

The weighted score for the transaction, using the GBA scorecard, is 1.00, which corresponds to a GB1 grade. For a full summary of the transaction's scoring under the GBA scorecard, please see "Methodology scorecard" below. For our full analysis of the transaction, please see the original in-depth report [here](#).

## Profile

Latvenergo is the dominant vertically integrated utility in Latvia, with total installed capacity of around 2.6 gigawatts, representing approximately 85% of the total Latvian electricity generation capacity. Latvenergo's main power plants comprise three hydro-power plants on the River Daugava and two combined heat and power plants in Riga, which use natural gas as their primary fuel. In addition, the group owns the country's electricity transmission grid assets (operated by an independent system operator) and owns as well as operates the Latvian electricity distribution network. Latvenergo is 100% owned by the [Government of Latvia](#) (A3 stable). For information on Latvenergo's credit profile, please see the [most recent published credit opinion](#) for the company.

## Recent developments

### Use of Proceeds

Moody's green bond assessment reflects that all of the Latvenergo's green bond proceeds had been allocated to eligible projects (see Exhibit 1 and Appendix).

Latvenergo's 2017 Green Bond Report disclosed that €66 million of bond proceeds had been allocated to the reconstruction of the hydropower units and technological equipment at Daugava HPPs, as well as renovation of the hydroengineering structures at the Daugava HPPs and Aiviekste HPP. These projects fall within the Renewable Energy category of the widely accepted Green Bond Principles, as they are investments in the capacity, efficiency, resiliency and safety of Latvenergo's hydropower generation assets.

Latvenergo's 2017 Green Bond Report further disclosed that €34 million of bond proceeds had been allocated to various energy efficiency projects (also an eligible Green Bond Principles category), including building and reconstruction of electricity lines and transformer points, smart electricity meters, and expanding interconnection capacity at the Kurzeme Ring, facilitating the integration of renewable energy sources into the transmission grid.

All of the eligible phases of the projects shown in Exhibit 1 below had been completed at the time of writing this update, with the exception of the renovation of Daugava HPPs hydropower units and technological equipment. While €47.9 million of green bond proceeds was allocated to this project, the total estimated costs will exceed €200 million and will be also financed from other sources. At the time of this update, 13 of 23 Daugava HPPs hydropower units had been already reconstructed, and reconstruction of remaining 10 hydropower units is scheduled through 2022.

Exhibit 1

### Latvenergo's €100 million of green proceeds allocated to major eligible projects

Eligible Category*	Project Description	Amount
Renewable Energy	Reconstruction of hydropower units at Daugava HPPs	47.9
Environmental Protection	Renovation of hydroengineering structures at the Daugava HPPs and Aiviekste HPP	18.1
Energy Efficiency	Expanding interconnection capacity at Kurzeme Ring	24.9
Energy Efficiency	Distribution energy efficiency projects	9.1
		100.0

\*Under Latvenergo's internally developed Green Bond Framework

Source: Latvenergo 2017 Sustainability and Annual Report

## Organization and Management of Proceeds

Moody's green bond assessment continues to reflect Latvenergo's well-defined organizational structure and decision making process for considering, evaluating and selecting environmental projects, reliance on external evaluations for decision making, and the involvement of internal audit function in evaluating the application of proceeds.

In January 2017, an independent internal audit unit within Latvenergo completed a compliance evaluation engagement and issued a report concluding that the allocation of bonds proceeds was performed in compliance with all essential requirements of Latvenergo's internally developed Green Bond Framework. This framework provides for the selection criteria for eligible projects, the selection procedure, creation of a special account to manage the proceeds and regular reporting.

As of January 2017, all of the funds raised had been disbursed under eligible projects and in compliance with the contracts between Latvenergo and its service providers and suppliers, according to the internal audit report.

### Reporting and Disclosure

Latvenergo has committed to publishing green bond annual reports. These reports have been included in the company's Sustainability and Annual Reports for 2015, 2016 and 2017 in line with our expectations. We expect the company to continue this reporting as long as the notes remain outstanding.

The company's 2017 report includes a comprehensive description of the projects, including amounts spent and the projects' objectives and benefits. For example, with nearly half of funds spent on reconstruction of Daugava hydropower units, the sustainability report provides disclosure on the potential and actual impact of this project on the group's carbon intensity. In 2017, Latvenergo Group's combustion plants emitted 882 thousand tonnes of CO<sub>2</sub>, representing a decrease of 23% compared to the previous year, primarily due to the substantial increase in electricity output at Daugava HPPs in 2017. Over the course of the Daugava reconstruction project (which is to continue through 2022), potential reduction in emissions directly attributable to the project is expected to be up to 18,000 tons of CO<sub>2</sub> per year. Another 5,000 tons of CO<sub>2</sub> per year had been avoided as a result of distribution energy efficiency projects resulting in the lesser amount of distribution losses since 2014.

## Methodology scorecard

Factor 1: Organization (15%)	Yes	No
Environmental governance and organization structure appear to be effective	●	
Policies and procedures enable rigorous review and decision making process	●	
Qualified and experienced personnel and/or reliance on qualified third parties	●	
Explicit and comprehensive criteria for investment selection, including measurable impact results	●	
External evaluations for decision making in line with project characteristics	●	
Factor Score	1	
Factor 2: Use of Proceeds (40%)	Yes	No
>95% - 100% of proceeds allocated to eligible project categories that are determined based on the issuer's adopted policies and the categories established under the Green Bond Principles that will be further informed by one or more robust and widely recognized green bond frameworks or taxonomies that qualify eligible projects, including any applicable regulatory guidelines.	●	
Factor Score	1	
Factor 3: Disclosure on the Use of Proceeds (10%)	Yes	No
Description of green projects, including portfolio level descriptions, actual or intended	●	
Adequacy of funding and/or strategies to complete projects	●	
Quantitative and/or qualitative descriptions for targeted environmental results	●	
Methods and criteria, both quantitative and qualitative, for calculating performance against targeted environmental results	●	
Issuer relies on external assurances: Second Party reviews, audits and/or third party certifications	●	
Factor Score	1	
Factor 4: Management of Proceeds (15%)	Yes	No
Bond proceeds are segregated and separately tracked on an accounting basis or via a method by which proceeds are earmarked	●	
Application of proceeds is tracked by environmental category and project type	●	
Robust process for reconciling planned investments against actual allocations	●	
Clear eligibility rules for investment of cash balances	●	
Audit by external organization or independent internal audit unit	●	
Factor Score	1	
Factor 5: Ongoing Reporting and Disclosure (20%)	Yes	No
Reporting and disclosure post issuance provides/to be provided detailed and timely status updates on projects	●	
Ongoing annual reporting is expected over the life of the bond	●	
Disclosures provide granular detail on the nature of the investments and their expected environmental impacts	●	
Reporting provides/to be provided a quantitative and/or qualitative assessment of the environmental impacts actually realized to-date	●	
Reporting includes/to include quantitative and/or qualitative explanation of how the realized environmental impacts compare to projections at the time the bonds were sold	●	
Factor Score	1	
Overall Weighted Score	1.00	

## Appendix: Eligible projects of Latvenergo's green bond programme

GROUP OPERATING SEGMENT	ELIGIBLE PROJECT	ELIGIBLE CATEGORY	ELIGIBLE COSTS, EUR MILLION	PROJECT OBJECTIVES AND BENEFITS
Generation	Reconstruction of hydropower units and technological equipment at Daugava HPPs	Renewable Energy	47.9	Extending the service life of the hydropower units and increasing their capacity and efficiency ratios. Maintaining a high share of renewables in energy generation. Increasing the safety of operation of the Daugava HPPs. Reducing the oil leakage risk. Implementation of the programme allows for a reduction of CO2 emissions of up to 18,000 tons per year. In 2017, the share of renewable energy generated by the Group was 75%.
Generation	Renovation of hydroengineering structures at the Daugava HPPs and Aiviekste HPP	Environmental Protection	18.1	Improving the resilience and safety of hydroengineering structures and dams and extending their service life. Reducing accident risk probability at dams and managing flood risk more efficiently, thus diminishing the potential impact on the public, property and the environment.
Generation	Study of migratory fish replenishment in the Daugava River	Sustainable Environment	0.07	Reducing the impact on biodiversity. Potential measures to offset the impact of the Daugava HPPs on fish stocks more efficiently and to reduce the impact on biodiversity will be identified and explored.
Distribution	Building and reconstruction of electricity lines and transformer points	Energy Efficiency	7.2	Reducing the duration of power interruptions and electricity losses. Extending the service life of the distribution grid. Since 2014, interruption duration and interruption frequency indexes have been reduced substantially (SAIDI by 30% and SAIFI by 44%). The reduction of CO2 emissions achieved as a result of the total decrease in distribution losses in this period is 5,000 tons.
Distribution	Smart electricity meters	Energy Efficiency	1.9	Reducing the duration of power interruptions and electricity losses. Opportunities for more efficient electricity consumption and use of smart energy efficiency products and services. At the end of 2017, more than 405,000 smart meters have been installed; these account for 36% of the total fleet of electricity meters and measure 78% of the total amount of electricity consumed by customers.
Distribution	Annual monitoring of white storks	Sustainable Environment	0.004	Reducing the impact on biodiversity. Data on the stork population and the proportion of their nests located on electricity line poles have been obtained.
Lease of transmission system assets	Second stage of Kurzeme Ring: Grobiņa-Ventspils	Energy Efficiency	24.9	Expanding interconnection capacity (in accordance with the EU climate and energy targets for 2030), which in turn facilitates the integration of renewable energy sources into the transmission grid, increases the security of the electricity supply and promotes competition in the electricity market. The total length of the new 330 kV electricity lines of Kurzeme Ring is set to be around 330 km and the planned capacity is 800 MW. The length of the electricity lines built within the second phase Grobiņa-Ventspils is 117 km.
TOTAL			100.0	

Source: Latvenergo 2017 Sustainability and Annual Report

## Moody's Green Bond Assessment (GBA)

Moody's GBA represents a forward-looking, transaction-oriented opinion on the relative effectiveness of the issuer's approach to managing, administering, allocating proceeds to and reporting on environmental projects financed with green bond proceeds. GBAs are expressed using a five-point relative scale, ranging from GB1 (Excellent) to GB5 (Poor). A GBA does not constitute a credit rating.

## Moody's related publications

### Methodology:

- » [Green Bonds Assessment \(GBA\)](#), March 30, 2016

### Credit Opinion:

- » [Latvenergo AS: Update to Credit Analysis](#), March 14, 2018
- » [Government of Latvia – A3 Stable: Regular update](#), February 13, 2018

### Issuer Comment:

- » [Latvenergo AS: Capacity payment restructuring mitigated by significant financial flexibility](#), September 7, 2017

### Green Bond Assessment:

- » [Latvenergo AS: Green Bond Assessment](#), June 26, 2017

### Sector In-Depth:

- » [Green Bonds – Global: Modest Q1 2018 issuance a speed bump on the road to market growth](#), April 20, 2018
- » [Green Bonds – Global: Global municipal green bond issuance will continue to rise](#), March 19, 2018
- » [Green Bonds – Global: Global green bond issuance set to eclipse \\$250 billion in 2018](#), January 31, 2018
- » [Cross-sector – Global: FAQ: The green bond market and Moody's Green Bonds Assessment](#), November 29, 2017
- » [Green Bond Assessments – Global: Issuers exhibit strong organizational frameworks but differ on disclosure](#), September 19, 2017

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