Green Evaluation

Greenalia S.A. €25 Million Note Program

Transaction Overview

Greenalia S.A. is seeking to borrow up to €25 million under a note program valid until July 26, 2019, to fund the equity portion of wind power and biomass projects in Spain. The notes can be issued in euros or in any other currencies, up to a maximum maturity of 120 months. They will rank pari passu with each other.

The program’s proceeds are expected to partly fund greenfield wind power and biomass projects located in Spain. Construction completion is scheduled between 2019 and 2021.

Greenalia is a group of companies with more than 20 years of experience. Its origins were in the forestry sector and later expanded to the energy sector, and biomass in particular. In recent years, the group has also become involved in other sources of renewable energy such as wind power. The activities of Greenalia take place mainly in the northwest of the Iberian Peninsula.

Green Evaluation Overview

Transaction's Transparency

- Use of proceeds reporting: 53
- Reporting comprehensiveness

Transaction's Governance

- Management of proceeds: 73
- Impact assessment structure

Mitigation

<table>
<thead>
<tr>
<th>Sector</th>
<th>Net Benefit Ranking</th>
<th>Hierarchy Adjustments</th>
</tr>
</thead>
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<td>Renewable energy</td>
<td>Wind power</td>
<td>Carbon</td>
</tr>
<tr>
<td>Renewable energy</td>
<td>Biomass energy generation</td>
<td>83</td>
</tr>
</tbody>
</table>
Project Description
Greenalia S.A. is seeking to borrow up to €25 million under a note program valid until July 26, 2019, to fund the equity portion of wind power and biomass projects in Spain. The company has already issued €15 million under the program, through three issuances. The first two, €5.8 million and €3.2 million, were used to develop a biomass plant in Spain, Curtis-Texeiro. The third issuance of €6 million was aimed at developing onshore wind farms in Spain; and we expect the remaining proceeds under the program to be used for funding further onshore wind projects in Spain.

Greenalia was awarded the right to build 133 MW of wind power capacity in the Spanish auction conducted by the Ministry of Energy in July 2017 and purchased an additional 49 MW from the same round. This capacity represents eight wind projects, which are scheduled to be constructed before the end of the year. Greenalia has also included in its business plan an additional 243 MW of wind power, which is currently at varying stages of development but is scheduled to be operational by December 2020.

Greenalia is a group of companies with more than 20 years of experience. Its origins were in the forestry sector and it later expanded its activity to the energy sector, and biomass in particular, through the production of electricity, thermal energy, and biofuels (pellets and dry chip). In recent years, the group has also become involved in other sources of renewable energy such as wind and solar. The activities of Greenalia take place mainly in the northwest of the Iberian Peninsula. The wind power business is developed through the subsidiary Greenalia Power, S.L.U.

Scoring Summary
The transaction has a Green Evaluation score of E1 on our scale of E1 (highest) to E4 (lowest) and an overall score of 76. The evaluation reflects a strong Mitigation score of 83 that is supported by proceeds allocated to new on-shore wind power and biomass projects in Spain. These projects provide low-carbon electricity, helping to offset Spain’s medium grid carbon intensity. The Mitigation score is further supported by the role green energy plays in the systemic decarbonization of the economy. The E1 score also reflects solid Governance (73), combined with an average score in Transparency (53).

Rationale
- We consider onshore wind and biomass power to be a long-term sustainable energy solution that is critical to climate-change mitigation, and therefore we place it toward the top of our carbon hierarchy of green technologies (above transportation or energy efficient buildings, for example) resulting in a Mitigation score of 83.
- The program benefits from its intention to measure the actual environmental impacts of the projects on at least an annual basis, resulting in a strong Governance score of 76.
- The project’s Transparency score benefits from the expected reporting of the allocation of the proceeds and the presence of defined project selection criteria. All proceeds will be used to build onshore wind farms and a biomass plant that implicitly have environmental advantages.
- All of these factors combined result in the final Green Evaluation of E1/76.

Key Strengths And Weaknesses
We expect the renewable electricity generated by the portfolio of a biomass plant and wind power plants to have significant positive environmental impacts by way of avoided greenhouse gas emissions and will contribute to the systemic decarbonization of the economy.

Spain’s power grid is already fairly decarbonized compared with the rest of the world, so we assume the assets will displace comparatively fewer emissions than in more carbon-intensive grids, such as those of Germany and Poland.

Greenalia S.A. has stated its commitment to report on the environmental impact to the relevant authority, in line with the environmental impact statements. We view this as positive in our assessment of Transparency, especially because it has committed to do so annually and also during the construction phase. The environmental indicators will include surveillance of noise, water quality, waste management, and hydrological and revegetation conditions, among other factors. These will be measured on an individual project level and by independent expert companies, followed by a technical verification conducted by the authority. The indicators will be provided to the authority at least on an annual basis during the construction and operational phases.

However, the relatively low Transparency score reflects the lack of environmental reporting to the program’s investor, other than the allocation of proceeds.

Given the corporate nature of this financing, the net proceeds of the financing will not be credited to a separate sub account, hence there is no clear tracking procedure. However, Greenalia has identified eligible green projects under which the program funds can be allocated that promote climate or other environmental sustainability purposes, which we understand will be biomass and onshore wind farm projects in Spain.

Greenalia has publicly disclosed its intention to comply with environmental regulations, which further reinforces the transaction’s solid Governance.
assessment of 73. Its environmental management is based on rigorous and exhaustive compliance with the respective regulation for its biomass and wind businesses.

We adjust the Net Benefit Ranking upward to give a final Mitigation score of 83 through our carbon hierarchy overlay, which recognizes the significant environmental benefits that all forms of renewable energy provide. Renewable energy technologies fall in the highest rung of our hierarchy, reflecting that these technologies are systemic solutions to achieving a low-carbon economy.

### Sector level scores

<table>
<thead>
<tr>
<th>Sector</th>
<th>Location</th>
<th>Technology</th>
<th>Use of Proceeds (€ mil.)</th>
<th>Use of Proceeds treatment</th>
<th>Net Benefit Ranking</th>
</tr>
</thead>
<tbody>
<tr>
<td>Green Energy</td>
<td>Spain</td>
<td>Wind power</td>
<td>16</td>
<td>Estimated</td>
<td>42</td>
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<tr>
<td>Green Energy</td>
<td>Spain</td>
<td>Biomass energy generation</td>
<td>9</td>
<td>Estimated</td>
<td>15</td>
</tr>
</tbody>
</table>

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# Carbon

## Green Evaluation Process

<table>
<thead>
<tr>
<th>Technology</th>
<th>Baseline Carbon Intensity</th>
<th>Net Benefit Ranking</th>
<th>Carbon Hierarchy Adjustment</th>
<th>Environmental Impact Score</th>
<th>Proceeds (€ mil.)</th>
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<tbody>
<tr>
<td>Wind power</td>
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<td>Solar power</td>
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<td>Small hydro</td>
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<td>Biomass power generation</td>
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<td>Energy management and control</td>
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<td>Unspecified</td>
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<td>Green transport without fossil fuel combustion</td>
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<td>Green buildings – new build</td>
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<td>Energy efficient projects (industrial and appliance efficiencies)</td>
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<td>Green transport with fossil fuel combustion</td>
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<td>Green buildings refurbishment</td>
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<td>Nuclear</td>
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<td>Large hydro in tropical areas</td>
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<td>Coal to natural gas</td>
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<td>Cleaner fuel production</td>
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<td>Cleaner use of coal</td>
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<td>Unspecified</td>
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**Overall Score:** E1/76

**Weighted aggregate of three (Transparency + Governance + Mitigation):**

- **Transparency:** 53
- **Governance:** 73
- **Mitigation:** 83

**Overall Score:** E1/76

## Technology Baseline Carbon Intensity Net Benefit Ranking Carbon Hierarchy Adjustment Environmental Impact Score Proceeds (€ mil.)

- Wind power: 42
- Solar power: 85
- Small hydro: 16
- Biomass power generation: 15
- Energy management and control: 79
- Systemic decarbonization: 9

**Increasing Decarbonization Impact:**

- Significant decarbonization in sectors already aligned with a green economy
- Alleviating emissions of existing carbon-intensive industries
- Decarbonization technologies with significant environmental hazards
- Improvement of fossil-fueled activities' environmental efficiency
Our Green Evaluation Approach

Weighted aggregate of three:

Transparency + Governance + Mitigation or Adaptation = Green Evaluation

Common approach used amongst opinion providers

Transparency
- Use of proceeds reporting
- Reporting comprehensiveness

Governance
- Management of proceeds
- Impact Assessment Structure

Unique to S&P Global Ratings

Mitigation
Buildings, industrial efficiencies, energy infrastructure, transport, and water

Adaptation
Resilience capex such as flood defenses, asset protection etc.

Net Benefit Ranking
eKPI’s: Carbon, Waste, Water Use

Cost Benefit Ranking
Resilience benefit ratio: Estimate of reduction in damages if event occurs

Hierarchy Applied

Environmental Impact

Resilience Level

Mitigation Score

Adaptation Score

Final Green Evaluation (E1- E4 or R1- R4)

eKPI – Environmental Key Performance Indicator
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