Raising the bar for external reviews and impact reporting

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CICERO’s approach to Second Opinions

CICERO takes a dynamic and flexible approach in dialogue with issuers to enhance a climate-friendly and sustainable future. Our approach is developing as science and the market evolves. We are an independent research institution, and our second opinions are issued independently of other stakeholders’ influence. This integrity has been valued by the market. Our second opinions are desk reviews and are not verifications of environmental impact.

√ the first green bond (World Bank)
√ the first municipal green bond (Gothenburg)
√ the first corporate green bond (Vasakronan)
√ the first green sukuk (Tadau Energy)
Why green bonds?

Source: Ed Hawkins, Climate Lab

Global Annual Temperatures 1850-2017 (Color-Coded)
Transition to sustainable economies provides investment opportunities
Green bonds open a communication channel to investors

• The green bond market builds capacity among market actors on what is green.

• Creating a common language for investors, scientist and companies is key

• GBP recommend that issuers appoint an external review
New guidelines for external reviews of green bonds

1. Integrity

2. Objectivity

3. Professional Competence and Due Care

4. Confidentiality

5. Professional Behaviour

Source: https://www.icmagroup.org/green-social-and-sustainability-bonds/external-reviews/
Our approach: Green Rating on Climate Risk

**SHADES OF GREEN**

- **Dark green** is allocated to projects and solutions that correspond to the long-term vision of a low carbon and climate resilient future.
- **Medium green** is allocated to projects and solutions that represent steps towards the long-term vision, but are not quite there yet.
- **Light green** is allocated to projects and solutions that are environmentally friendly but do not by themselves represent or contribute to the long-term vision.
- **Brown** for projects that are in opposition to the long-term vision of a low carbon and climate resilient future.

**EXAMPLES**

- Wind energy projects with a governance structure that integrates environmental concerns
- Plug-in hybrid busses
- Efficiency in fossil fuel infrastructure that decreases cumulative emissions
- New infrastructure for coal
Shading by project category

- Green projects come in all shades, but clear trends by sector
- Fewer light green projects so far, these projects are essential to a successful transition

CICERO Shades of Green
- dark green
- medium green
- light green
- mixed

CICERO's Absolute Number of Assigned Shades of Green (2013-2018) per Involved GBP Project Category
The green bond market has contributed to building environmental capacity within the financial sector. Investors have different mandates and views on green bonds.

Transparency on environmental attributes can facilitate an environmental “race to the top”.

Climate science tells us that we need to move towards carbon neutral technologies. What qualifies as a bridging technologies depends on the regional context.
The importance of impact reporting

• Transparency is key to the integrity of the green bond market

• Pre-issuance external review provides insights on framework, post-issuance reporting on implementation and actual environmental impact

• Investors increasingly expect impact reporting for green bonds
Impact metrics

Numeric measurements of expected/actual impact. Issuer is encouraged to include "green metrics" in addition to emissions.

Examples:

- Mwh of electricity produced
- Reduction of CO₂-equivalents emissions
Example impact reporting: ICBC

Environmental Impacts

The green bonds issued helped to reduce a total CO2 emission of 4,186,135 tons per year, including 2,720,437 tons per year for renewable energy assets and 1,465,998 tons per year for low-carbon and low-emission transportation.

<table>
<thead>
<tr>
<th>Category</th>
<th>Ref.</th>
<th>Installed Capacity (MW)</th>
<th>Power Generation per year (MWh)</th>
<th>GHG Emission Avoided per year (ton)</th>
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<tbody>
<tr>
<td>Wind power</td>
<td></td>
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<td></td>
<td></td>
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<tr>
<td>Project 1</td>
<td>400</td>
<td>400</td>
<td>102,000</td>
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<td>Project 10</td>
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<td>12,099</td>
<td>6,540</td>
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<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td><strong>3,522,171</strong></td>
<td><strong>2,720,437</strong></td>
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Note: The impacts of renewable energy projects have applied the ESB Carbon Footprint Methodology.

Key take-aways

• Green Bonds open a *communication channel to investors*, external reviews help facilitate this communication. Creating a common language for investors, scientist and companies is key.

• *All shades of green are necessary* for the transition. The key is to avoid locking in obsolete infrastructure.

• *Investors expect impact reporting* from green bonds. It is key to be transparent on methodologies and assumptions. Several technology enabled platforms are emerging to enable efficient and transparent reporting.
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