

# Renesas Electronics Corporation (2021 Green Bond)

**Type of Engagement:** Annual Review

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## Introduction

In November 2021, Renesas Electronics Corporation (“Renesas”) issued a green bond aimed at financing projects related to Clean Transportation, Energy Efficiency, Renewable Energy, and Sustainable Water and Wastewater Management (USD 500 million 3-Year Green Bond, hereinafter the “2021 Green Bond”). As of September 30, 2022, the proceeds were allocated to projects related to Clean Transportation and Energy Efficiency. In October 2022, Renesas engaged Sustainalytics to review the project funded through the 2021 Green Bond and assess whether the projects met the Use of Proceeds criteria and the Reporting commitments outlined in the Renesas Electronics Corporation Green Bond Framework (the “Framework”).<sup>1</sup>

## Evaluation Criteria

Sustainalytics evaluated the project funded with proceeds from November 2021 to September 2022 based on whether the project:

1. Met the Use of Proceeds and Eligibility Criteria outlined in the Framework; and
2. Reported on the impact indicators for each Use of Proceeds criteria outlined in the Framework.

Table 1 lists the Eligibility Criteria and associated impact indicators for the Use of Proceeds category to which the proceeds were allocated.

**Table 1: Use of Proceeds, Eligibility Criteria, and associated impact indicators**

Use of Proceeds	Eligibility Criteria	Impact indicators
Clean Transportation	<ol style="list-style-type: none"> <li>1. <b>Smart Electric Vehicles Solutions</b> Electric Vehicles runs on electricity reducing CO<sub>2</sub> emission</li> <li>2. <b>Smart Autonomous Drive Solutions</b> AD and ADAS not only reduces energy consumption, but also protects driver against potential accidents</li> </ol>	Where feasible, Renesas intends to report on the environmental impacts of the projects funded with the Green Bond proceeds. This may be supplemented by qualitative and/or case-study reports on outcomes and impacts of the projects funded. Where relevant, information may be provided on data reporting and impact assessment methodologies, to increase transparency.
Energy Efficiency	<ol style="list-style-type: none"> <li>3. <b>Smart Data Center Solutions</b> Next generation data centers, with the transition from DDR4 to DDR5, increases bandwidth as well as energy efficiency</li> <li>4. <b>Smart Cellular Solutions</b> 5G technology allows for faster connections and more devices to be connected, all while increasing energy efficiency</li> <li>5. <b>Smart Society Solutions</b> Renesas' various solutions contribute to reduction in CO<sub>2</sub></li> </ol>	Same as above

<sup>1</sup> Renesas Electronics Corporation Green Bond Framework is available at: <https://www.renesas.com/us/en/document/oth/green-bond-framework?r=1399796>

	<p>emission and energy consumption in a variety of applications from industrial sectors, renewable energy to home appliances and IoT devices</p> <p><b>6. Renesas' Green Devices and Technology</b> Renesas's various product portfolio and technology contribute to less energy consumption and development of eco-friendly products</p>	
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### Issuing Entity's Responsibility

Renesas is responsible for providing accurate information and documentation relating to the details of the projects that have been funded, including description of projects, amounts allocated, and project impact.

### Independence and Quality Control

Sustainalytics, a leading provider of ESG and corporate governance research and ratings to investors, conducted the verification of Renesas's 2021 Green Bond Use of Proceeds. The work undertaken as part of this engagement included collection of documentation from Renesas employees and review of documentation to confirm the conformance with the Framework.

Sustainalytics has relied on the information and the facts presented by Renesas with respect to the projects in the eligible categories. Sustainalytics is not responsible nor shall it be held liable if any of the opinions, findings, or conclusions it has set forth herein are not correct due to incorrect or incomplete data provided by Renesas.

Sustainalytics made all efforts to ensure the highest quality and rigor during its assessment process and enlisted its Sustainability Bonds Review Committee to provide oversight over the assessment of the review.

### Conclusion

Based on the limited assurance procedures conducted,<sup>2</sup> nothing has come to Sustainalytics' attention that causes us to believe that, in all material respects, the reviewed bond projects, funded through proceeds of Renesas Electronics Corporation's 2021 Green Bond, are not in conformance with the Use of Proceeds and Reporting Criteria outlined in the Renesas Electronics Corporation Green Bond Framework. Renesas has disclosed to Sustainalytics that the proceeds of the 2021 Green Bond were fully allocated as at September 30, 2022.

<sup>2</sup> Sustainalytics limited assurance process includes reviewing the documentation relating to the details of the projects that have been funded, including description of projects, and project impact, which were provided by the Issuer. The Issuer is responsible for providing accurate information. Sustainalytics has not conducted on-site visits to projects.

## Detailed Findings

**Table 2: Detailed Findings**

<b>Evaluation Criteria</b>	<b>Procedure Performed</b>	<b>Factual Findings</b>	<b>Error or Exceptions Identified</b>
<b>Use of Proceeds Criteria</b>	Verification of the projects funded by the 2021 Green Bond from November 2021 to September 2022 to determine if the projects were aligned with the Use of Proceeds Criteria outlined in the Renesas Electronics Corporation Green Bond Framework and above in Table 1.	All projects reviewed complied with the Use of Proceeds criteria.	None
<b>Reporting Criteria</b>	Verification of the projects funded by the 2021 Green Bond from November 2021 to September 2022 to determine if the impact of the projects was reported in line with the impact indicators outlined in the Renesas Electronics Corporation Green Bond Framework and above in Table 1.	All projects reviewed reported on impact indicators per Use of Proceeds criteria.	None

## Appendix

### Appendix 1: Allocation of Green Bond Proceeds

Use of Proceeds Category	Overview of Project	Net Bond Proceeds Allocation (million USD)
Clean Transportation	1. Smart Electric Vehicles Solutions	34
	2. Smart Autonomous Drive Solutions	283
Energy Efficiency	3. Smart Data Center Solutions	53
	4. Smart Cellular Solutions	11
	5. Smart Society Solutions	96
	6. Renesas's Green Devices and Technology	23
<b>Total Net Bond Proceeds Allocated:</b>		500
<b>Total Net Bond Proceeds Unallocated:</b>		0
<b>Total Net Bond Proceeds from Green Bond issuance:</b>		500

### Appendix 2: Impact Reporting<sup>3</sup>

Use of Proceeds Category	Description of impacts (excerpt)
Clean Transportation	<ul style="list-style-type: none"> <li>MCUs used for controlling Battery Management Systems (BMS) such as the RH850, achieves 60-65% reduction in power consumption compared to competitor products.</li> <li>PMIC solutions reduce power loss by up to 33% compared to competitive PMICs.</li> </ul>
Energy Efficiency	<ul style="list-style-type: none"> <li>F5288 transmitter/receiver has 33% lower power consumption and leads to 8.4Kt of reduced/avoided GHG per year, compared to similar products by industry competitors.</li> <li>Renesas' 8<sup>th</sup> generation IGBTs, which utilizes our low-power construction expertise, allows for more than 30% reduction in power loss and increases energy efficiency of all systems.</li> <li>RZ/V MPU, which control and operate these factory automations, can reduce power consumption by 80% compared to previous generations.</li> <li>RL78, RX, and RA products from Renesas' MCU portfolio achieve 30% less electricity consumption compared to past products.</li> </ul>

<sup>3</sup> Impact Reporting by Renesas is available at: <https://www.renesas.com/jp/en/about/company/sustainability>

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