



**B.GRIMM**

SINCE 1878

B.GRIMM POWER

# MATERIALITY ANALYSIS

**2023**



**EMPOWERING THE WORLD  
COMPASSIONATELY**

in Harmony with Nature.



“  
Doing Business with  
Compassion for the  
Development of  
Civilisation in Harmony  
with Nature.”

B.GRIMM POWER

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# OVERVIEW

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## Materiality Assessment

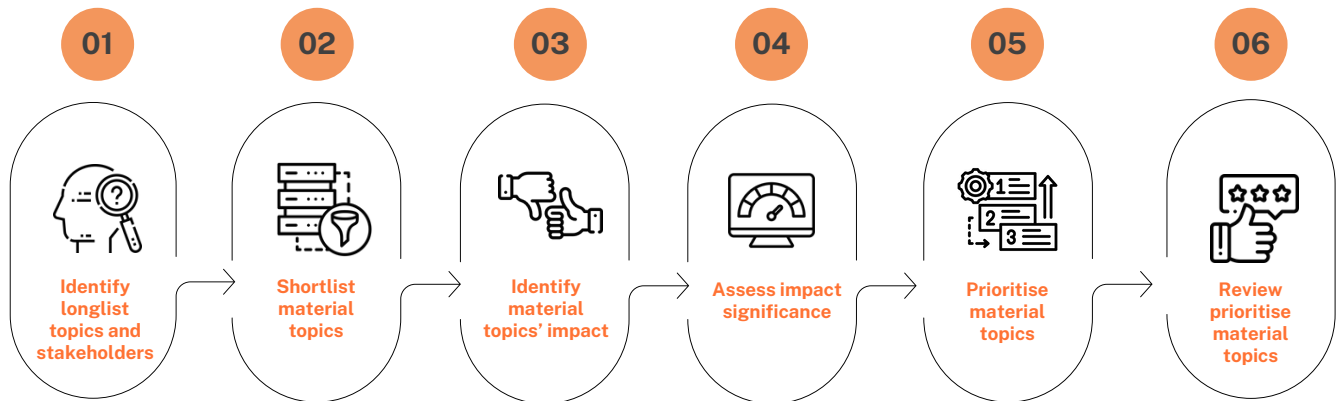
To determine material topics, B.Grimm Power adopts an approach aligning with the Global Reporting Initiative (GRI) Standards, specifically GRI 3: Material Topics (2021). This approach considers topics that are relevant to the business, encompassing the areas of economy, governance, environment and people including human rights in both positive and negative terms. It encompasses both actual and potential impacts. We also take into account of the double materiality principles, aiming to identify the impacts of our company on environment and society (outward impact), as well as its impact both financial and non-financial on B.Grimm Power (inward impact) that have or will have an impact on corporate value. This assessment takes into account the perspectives and opinions of stakeholders along the entire value chain. . The assessment of the most important topics is reviewed by an external auditor and approved by the Board of Directors. .

B.Grimm Power conducts these assessments on an annual basis, and the results play a crucial role in aligning our strategy and objectives with the dynamic sustainability landscape and the emerging interests of our stakeholders. Moreover, these findings guide the allocation of resources by prioritising essential topics, while also revealing potential risks and opportunities to support our sustainability strategy.

This strategy forms the core for establishing targets, monitoring progress towards our goals, and facilitating sustainability reporting efforts for relevant stakeholder groups.



# THE PROCESS OF MATERIALITY ASSESSMENT



## 1

### Identify longlist topics and stakeholders

#### • Identification of ESG longlist topics

To determine the Environmental, Social and Governance (ESG) longlist of topics across B.Grimm Powers value chain, we analysed multiple external and internal sources for example, ESG megatrends, Global Reporting Initiative (GRI) Standards, the United Nations Sustainable Development Goals (UNSDGs), Sustainability Accounting Standard Board (SASB), Task Force on Climate-Related Financial Disclosures (TCFD), sustainability rating agencies, B.Grimm Power's previous year's material topics, and peer benchmarks.

*In the 2023 materiality assessment, the results remained consistent with those of 2022, comprising 27 megatrends, which translated into 51 longlist topics in guiding stakeholders to identify impacts. The full list of ESG megatrends and topics is available at the end of this report.*

#### • Identification of the stakeholders

We reviewed and updated our list of key internal and external stakeholders that are affected by B.Grimm Power's activities namely, employees, shareholders and investors, business partners, customers, suppliers, creditors, regulators and government agencies, local communities, media and NGOs. Once identified, we conducted pre-interviews surveys to determine which topics were relevant to each stakeholder group.

Assessment of topics' significance to stakeholders

		Topics			
		Climate change	Human rights	Health & safety	Sustainable finance
Stakeholders	Government	●	●	●	○
	NGOs	●	●	●	●
	Communities	○	●	●	○
	Media	○	○	●	○
	Customers	●	●	○	●
	Suppliers	○	●	○	●
	Employees	○	●	●	○

Level of significance: ○ No significance at all ● High ● Medium ○ Low

There were 10 groups of stakeholder surveyed and interviewed, both internally and externally as follows:



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**Shortlist material topics**

By conducting a pre-interview survey, using a one to five score (from non-significant to highly significant), we were able to eliminate non-material topics from the ESG longlist. We then identified the specific ranking of each topic, establishing our shortlist.

3

**Identify material topics' impact**

Identify actual and potential impacts (negative and positive) on the economy, environment, social, and governance dimensions with consideration of human rights across B.Grimm Power's activities, and business relationships through stakeholder interviews. Based on the double materiality concept, the impacts identified are both impacts of sustainability topics on B.Grimm Power performance and business overall, including risk and business opportunities, and could impact company value (inward impacts), as well as impacts of B.Grimm Power's operation on planet and society (outward impacts).

Scoring of material topic

For each ESG dimension, stakeholders to provide an initial score to each topic to indicate their significance to B. Grimm

Except and example only

0 = No significance at all 1 = Very little significance 3 = Moderate significance 5 = Very high significance

For "business partners" stakeholders, kindly focus on impact on the JV/business collaboration with B.Grimm when answering

Topics	0	1	2	3	4	5
Renewable energy generation - Degree of using renewable energy in power generation portfolio	○	○	○	○	○	●
Energy transition risks - Vulnerability of business, activities, and assets to energy transition	○	○	●	○	○	○
Internal carbon pricing - A mechanism for organizations to put value on GHG emissions to facilitate analysis of the actual and potential impacts of climate-related risks and opportunities	○	●	○	○	○	○
Energy consumption - Management of energy consumption and energy requirements of products and services within and outside the organization	○	○	○	●	○	○
Water consumption - Managing intensity/volume of total water use and controlling water wastage	○	○	○	○	○	●

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**Assess impact significance**

Through stakeholder interviews, we were able to understand our stakeholders' perspectives and expectations based on the following criteria: severity (scale, scope, and irremediable character) and likelihood/time frame for each impact. Then refining the significance for each topic.

Interview focus areas

Example

Material topic	Impact	Impact type and details	Severity	Timeframe & Likelihood
Occupational health and safety (OHS) Significant score: 5	<ul style="list-style-type: none"> <li>Increased awareness on health and safety issues due to preventive actions being carried out</li> </ul>	<ul style="list-style-type: none"> <li>Inward impact on organization or outward impact on external stakeholders?</li> <li>Eg. Positive perception by communities towards the organization</li> </ul>	<ul style="list-style-type: none"> <li>Details regarding the scale, scope, irremediable character (if negative)</li> </ul>	<ul style="list-style-type: none"> <li>Expected timeframe/duration</li> <li>Likelihood</li> </ul>
	<ul style="list-style-type: none"> <li>Potential increase in rate of accidents due to a failure to enforce a health and safety SOP in the community in which the company operates</li> </ul>	<ul style="list-style-type: none"> <li>Caused by or contributed by or directly linked to the organization?</li> <li>Eg. Contributed by organization not enforcing stronger OHS policy to its project teams</li> </ul>	<ul style="list-style-type: none"> <li>Details regarding the scale, scope, remediable solutions (if negative)</li> </ul>	<ul style="list-style-type: none"> <li>Expected timeframe/duration</li> <li>Likelihood</li> </ul>
Training Education Significant score: 4	-	-	-	-

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**Prioritise material topics**

B.Grimm Power reviewed grouping of impact(s) to material topics and determined the overall priority for each material topic from input of various stakeholders. The material topics were prioritised through materiality matrix, where the x-axis represents inward impacts (where sustainability topics on B.Grimm Power performance and business overall and could impact company value), and the y-axis represents outward impacts (which B.Grimm Power can have significant impact on planet and society).

The prioritised material topics in 2023 is available on [Materiality Matrix](#) section.

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# 6



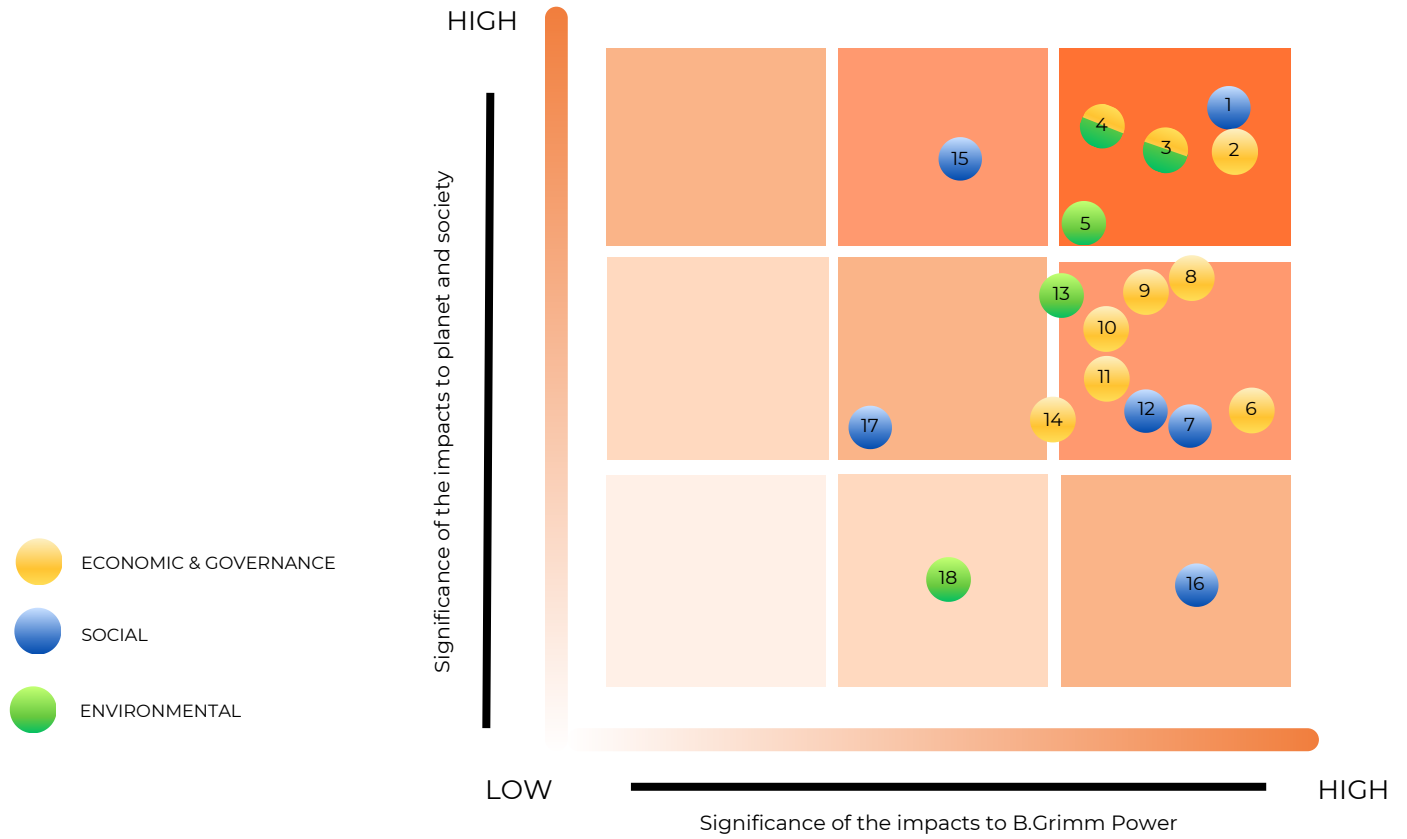
## Review prioritise material topics

The results of materiality assessment including material topics were reviewed and considered by the management committee and the Corporate Governance and Sustainability Committee (CGSC), and approved by the Board of Directors respectively.



# MATERIALITY MATRIX

## Materiality Matrix 2023



MATERIALITY MATRIX

### Environmental      Social      Economic & Governance

Topic	Environmental	Social	Economic & Governance
1. Corporate citizenship		●	
2. Customer satisfaction			●
3. Energy efficiency, availability, and reliability	●		●
4. Low-Greenhouse Gas portfolio development	●		●
5. Biodiversity	●		
6. Growth and economic performance			●
7. Talent management and employee welfare		●	
8. Governance			●
9. Anti-corruption and transparency			●
10. Innovation and digitalisation			●
11. Cybersecurity and data privacy			●
12. Diversity and equal opportunity		●	
13. Water and air management	●		
14. Sustainable supply chain			●
15. Disaster and emergency management	●		
16. Occupational health and safety		●	
17. Vigilance against forced labour		●	
18. Waste management and circularity	●		



# MATERIAL TOPICS

Material topic	Impact level	Inward Impact	Outward Impact	Stakeholder involved	Value Chain
1. Corporate citizenship	●●●	+ Brand Image/ Reputation/ Social license to operate	+ Improve quality of life, job creation, and local economic growth	<ul style="list-style-type: none"> <li>Local communities</li> <li>NGOs</li> </ul>	<ul style="list-style-type: none"> <li>Sourcing</li> <li>Operations &amp; Maintenance</li> </ul>
2. Customer satisfaction	●●●	<ul style="list-style-type: none"> <li>+ Customer retention and ensure revenue stream</li> <li>+ More competitive advantage in winning PPAs</li> </ul>	<ul style="list-style-type: none"> <li>+ demand side management service added value for customer toward their net zero goal</li> <li>- If not well managed, could lead to operational disruption to industrial customers</li> </ul>	<ul style="list-style-type: none"> <li>Customer</li> <li>Business partners</li> </ul>	<ul style="list-style-type: none"> <li>Transmission &amp; Distribution</li> <li>Operations &amp; Maintenance</li> <li>Sales &amp; After-Sales Service Development</li> </ul>
3. Energy efficiency, availability, and reliability	●●●	<ul style="list-style-type: none"> <li>+ Cost Efficiency, Resource Optimisation</li> <li>+ Avoid operational disruption</li> </ul>	<ul style="list-style-type: none"> <li>+/- Environmental Impact</li> <li>+/- Satisfied services, improve cost efficiency</li> <li>- Higher cost for customers due to high natural gas price</li> </ul>	<ul style="list-style-type: none"> <li>Customer</li> <li>Business Partner</li> <li>Regulator and government agencies</li> </ul>	<ul style="list-style-type: none"> <li>Sourcing</li> <li>Operations &amp; Maintenance</li> </ul>
4. Low-Greenhouse Gas portfolio development	●●●	<ul style="list-style-type: none"> <li>+ Strategic/ Target alignment, new business opportunities capture revenue growth toward energy transition</li> <li>+ Risk mitigation</li> <li>+ Brand Image/Reputation</li> <li>- Higher cost of investment</li> </ul>	<ul style="list-style-type: none"> <li>+ Responding to higher demands of cleaner energy of customers</li> <li>+ green loans/bonds align with Creditors and investors' decarbonisation agenda</li> <li>+ Environmental/Social Benefits</li> </ul>	<ul style="list-style-type: none"> <li>Shareholder and investor</li> <li>Regulator and government agencies</li> <li>NGOs</li> </ul>	<ul style="list-style-type: none"> <li>Sourcing</li> <li>Operations &amp; Maintenance</li> </ul>
5. Biodiversity	●●●	<ul style="list-style-type: none"> <li>+ Strategic/ Target alignment</li> <li>+/- Brand Image/Reputation</li> <li>- Supply Chain Vulnerabilities (biodiversity loss can effect raw material)</li> </ul>	<ul style="list-style-type: none"> <li>+ Improve eco-system, benefiting society at large</li> <li>- Loss of biodiversity and natural habitat e.g. land-intensive renewable projects</li> </ul>	<ul style="list-style-type: none"> <li>Business partners</li> <li>Regulator and government agencies</li> <li>Local communities</li> <li>NGOs</li> </ul>	<ul style="list-style-type: none"> <li>Sourcing</li> <li>Operations &amp; Maintenance</li> </ul>
6. Growth and economic performance	●●	<ul style="list-style-type: none"> <li>+ Profitability, business growth, employee satisfaction, Talent attraction</li> <li>- Operational Challenge, Risk and Cultural Shifts (from rapid change)</li> </ul>	<ul style="list-style-type: none"> <li>+ Shareholder, investors, creditors' trust</li> <li>+ Job Creation</li> <li>+ Supplier opportunities</li> <li>- Environmental impact due to more resources used for economic expansion)</li> </ul>	<ul style="list-style-type: none"> <li>Employee</li> <li>Shareholder and investor</li> <li>Business partners</li> <li>Supplier</li> <li>Creditor</li> </ul>	All
7. Talent management and employee welfare	●●	<ul style="list-style-type: none"> <li>+ Enhanced Productivity, talent retention</li> <li>- Poor management, leads to high turnover</li> </ul>	+ Enhanced Productivity, talent retention	<ul style="list-style-type: none"> <li>Employee</li> </ul>	Supporting Activities (Human Resource Management)
8. Governance	●●	<ul style="list-style-type: none"> <li>+ Effective Decision-Making</li> <li>+ Reputation Enhancement</li> <li>- Poor governance, leads to conflict, fine from regulatory breaches</li> </ul>	+/- Shareholder, investors, creditors' trust	<ul style="list-style-type: none"> <li>Employee</li> <li>Shareholder and investor</li> <li>Supplier</li> <li>Business partners</li> </ul>	All

Impact level ●●● Very High (Value Creation) ●● High (Enabler) ● Medium to low (Foundation)

## Relevant



Material topic	Management Approach	Relevant SDGs	Relevant GRI
<b>Corporate citizenship</b>	<p>Align with our 'Doing Business with Compassion' ethos, we prioritises robust social and community development through understanding societal needs and nurturing relationships. Through supporting STEM graduation, we integrate skill development for students, reinforcing both the economy and society.</p> <p><i>For more details: <a href="#">Social and Community Development</a></i></p>		GRI 203: Indirect Economic Impacts 2016. GRI 413: Local Communities 2016
<b>Customer satisfaction</b>	<p>We maintain our pursuit of innovation and novel solutions that arise from our cooperation with industrial users, in addition to ensure energy efficiency, availability and reliability. We advocate for the transition of low-carbon energy while establishing customer satisfaction and engagement to grow together as partners in a sustainable fashion.</p> <p><i>For more details: <a href="#">Operational Excellence and Customer Relationship Management</a></i></p>		Disclosure 3-3 Management of material topics
<b>Energy efficiency, availability, and reliability</b>	<p>B.Grimm Power is committed to ultimate security by using its system of premium power generation and steam production, fuelled by reliable energy derived from readily available power grids. Our products are marked by sustainability and affordability.</p> <p><i>For more details: <a href="#">Operational Excellence and Customer Relationship Management</a></i></p>		GRI 302: Energy 2016
<b>Low-Greenhouse Gas portfolio development</b>	<p>B.Grimm Power aims to achieve Net Zero Carbon Emissions by 2050, with ongoing reduction of carbon intensity. Governance enhancements and climate integration drive sustainable decisions. Our 'No Coal Policy' highlights commitment to clean energy, efficiency, and stakeholder value. The focus on cleaner, reliable power generation aligns with global sustainability for a better future.</p> <p><i>For more details: <a href="#">Climate Strategy</a></i></p>		GRI 305: Emissions 2016
<b>Biodiversity</b>	<p>At B.Grimm Power, we realise the importance of preventing, minimising, and mitigating the environmental impacts of our operations. Our efforts include the conservation of biodiversity—the variety of life, both flora and fauna, in a natural ecosystem—and the protection and preservation of water sources and forested land.</p> <p><i>For more details: <a href="#">Biodiversity</a></i></p>		GRI 304: Biodiversity 2016
<b>Growth and economic performance</b>	<p>Our strategy "GreenLeap" aiming to become a leading provider of sustainable energy solutions, consisting of the three pillars: Industrial Solutions, Independent Power Producer, and Sustainable Fuels</p> <p><i>For more details: <a href="#">2023 GreenLeap Strategy</a></i></p>		GRI 201: Economic Performance 2016
<b>Talent management and employee welfare</b>	<p>B.Grimm Power prioritises employee well-being, fostering a positive work environment aligned with organisational values. With a mission to become a learning organisation, we are dedicated to enhancing employees' potential and skills, aligning with career growth and business direction, ensuring employees' growth in their roles.</p> <p><i>For more details: <a href="#">Our People</a></i></p>		GRI 401: Employment 2016, GRI 402: Labor/Management Relations 2016
<b>Governance</b>	<p>The Board of Directors treat our compliance with the corporate governance principles as a priority and recognises the roles, duties and responsibilities and launched a Corporate Governance Policy, based on SEC's Corporate Governance Code.</p> <p><i>For more details: <a href="#">Corporate Governance</a></i></p>		GRI 401: Employment 2016, GRI 402: Labor/Management Relations 2016

Material topic	Impact level	Inward Impact	Outward Impact	Stakeholder involved	Value Chain
9. Anti-corruption and transparency	●●	+ Ethical Culture, Risk mitigation, Employee trust - Poor governance, leads to conflict, fines from regulatory breaches	+/- Shareholder, investors, creditors' trust	<ul style="list-style-type: none"> <li>Employee</li> <li>Shareholder and investor</li> <li>Supplier</li> <li>Business partners</li> </ul>	All
10. Innovation and digitalisation	●●	+ Revenue growth, supported by digital technologies to provide solutions to customers - High cost of investment, and improve skill gaps - Risk of Failure, Implementation Challenges	+ Collaboration opportunities with partners/suppliers + Job Creation	<ul style="list-style-type: none"> <li>Employee</li> <li>Shareholder and investor</li> <li>Business partners</li> <li>Customer</li> </ul>	- Sourcing - Operations & Maintenance - Sales & After-Sales Service Development
11. Cybersecurity and data privacy	●●	+ Data protection + Risk Management - Loss of Customers	- Customer data's Breaches	<ul style="list-style-type: none"> <li>Employee</li> <li>Business partners</li> <li>Customer</li> </ul>	All
12. Diversity and equal opportunity	●●	+ Attract and retain talents + More diverse range of views, benefit company operation +/- Brand Reputation	+ Stakeholders receive equal opportunities + Stakeholders' confidence	<ul style="list-style-type: none"> <li>Employee</li> <li>Local communities</li> </ul>	Supporting Activities (Human Resource Management)
13. Water and air management	●●	+ Business Continuity, Risk Mitigation - Operational Disruption from insufficient water supplies	+ Community Relations + Environmental Stewardship - Insufficient water supplies for community or health impact from air emissions	<ul style="list-style-type: none"> <li>Employee</li> <li>Customer</li> <li>Supplier</li> <li>Regulator and government agencies</li> <li>Local communities</li> </ul>	- Sourcing Operations & Maintenance
14. Sustainable supply chain	●●	+ Competitive Advantage, Risk Prevention +/- Brand Reputation	+ ESG customer preferences	<ul style="list-style-type: none"> <li>Customer</li> <li>Supplier</li> </ul>	- Sourcing Operations & Maintenance
15. Disaster and emergency management	●●	+ Business Continuity + Risk Mitigation - Operational Disruption and physical asset damage	- Operational disruption for customers	<ul style="list-style-type: none"> <li>Employee</li> <li>Customer</li> <li>Supplier</li> <li>Regulator and government agencies</li> <li>Local communities</li> </ul>	- Sourcing Operations & Maintenance
16. Occupational health and safety	●	+ Employee Health and Safety - Severe incident that could impact lives, operation, and reputation	+ Contractors Health and Safety - Severe incident that could impact employees/contractors' life	<ul style="list-style-type: none"> <li>Employee</li> <li>Supplier</li> </ul>	- Operations & Maintenance
17. Vigilance against forced labour	●	+ Supply Chain Resilience - Brand Reputation - Legal Consequences	+ Stakeholders' confidence - Loss of employees/contractor	<ul style="list-style-type: none"> <li>Employee</li> <li>Customer</li> <li>Supplier</li> <li>Regulator and government agencies</li> </ul>	- Sourcing Operations & Maintenance
18. Waste management and circularity	●	+ Resource efficiency, Risk Mitigation +/- Brand Reputation - Operational Disruption	+ Potential collaboration and business opportunities with suppliers - Environmental impact on the local community in case of improper disposal	<ul style="list-style-type: none"> <li>Employee</li> <li>Customer</li> <li>Supplier</li> <li>Regulator and government agencies</li> <li>Local communities</li> </ul>	- Sourcing Operations & Maintenance

Impact level ●●● Very High (Value Creation) ●● High (Enabler) ● Medium to low (Foundation)

Relevant



Material topic	Management Approach	Relevant SDGs	Relevant GRI
<b>Anti-corruption and transparency</b>	B.Grimm Power and its subsidiaries are committed to lawful business conduct based on honesty, transparency, and fairness in accordance with the principles of good Corporate Governance. We are determined to fight against Fraud and Corruption in all forms. <i>For more details: <a href="#">Anti-corruption</a></i>		GRI 205: Anti-corruption 2016, GRI 206: Anti-competitive Behavior 2016, GRI 415: Public Policy 2016
<b>Innovation and digitalisation</b>	We focus on innovative energy solutions for sustainable management, serving industrial users and corporations. It's focused on creating new businesses to support energy growth while ensuring reliable services. Additionally, the company is embracing digitalisation through technology integration, collaboration, cost efficiency, and cybersecurity measures in line with international standards. <i>For more details: <a href="#">Innovation and Digitalisation</a></i>	 	3-3 Management of material topics
<b>Cybersecurity and data privacy</b>	We prioritise cyber threat readiness and privacy protection with comprehensive guidelines, aligning with Thailand's Cybersecurity Act B.E. 2562, (2019) and the Personal Data Protection Act B.E. 2562 (2019), and relevant international standards <i>For more details: <a href="#">Cyber Security and Privacy Protection</a></i>	-	GRI 418: Customer Privacy 2016
<b>Diversity and equal opportunity</b>	We enforce human rights guidelines spanning the operations, subsidiaries, and stakeholders. Committed to international standards, and conducted triennial Human Rights Due Diligence and Risk & Impact Assessments. Reporting outcomes and addressing concerns, it establishes channels for stakeholder complaints. <i>For more details: <a href="#">Human Rights</a></i>	 	GRI 405: Diversity and Equal Opportunity 2016, GRI 406: Non-discrimination 2016
<b>Water and air management</b>	We annually assess water scarcity risks at our operation. Stakeholder engagement involves talk with industrial zones and communities. Water modeling, continuity planning ensure operations without harming local water access. We also prioritise mitigating air pollution's effects by enforcing stringent air quality monitoring and control around power plants, aiming for operational efficiency and environmental well-being. <i>For more details: <a href="#">Environmental and Resource Management</a></i>	 	GRI 303: Water and Effluents 2018, GRI 305: Emissions 2016
<b>Sustainable supply chain</b>	We integrate the Suppliers' Code of Conduct and Sustainability Guidelines into the procurement process, requiring suppliers to uphold ethical business practices, prioritise labor and human rights and consider broader social and environmental impacts. <i>For more details: <a href="#">Sustainable Supply Chain</a></i>	 	GRI 204: Procurement Practices 2016, GRI 308: Supplier Environmental Assessment 2016, GRI 414: Supplier Social Assessment 2016
<b>Disaster and emergency management</b>	We prioritise risk management for business continuity, including fire, chemical leaks, and flooding, with international standard-aligned emergency plans. Combining ISO 14001, ISO 45001, and ISO 22301, we assess risks, maintains business continuity and emergency response plans, and conducts annual drills at plants, ensuring effective response to emergencies and community impacts. <i>For more details: <a href="#">Occupational Health and Safety</a></i>		3-3 Management of material topics
<b>Occupational health and safety</b>	We prioritise occupational health and safety, striving to enhance operations and efficiency while adhering to global standards includes minimising community impacts near power plants, fostering a safety culture, and ensuring the well-being of employees, aiming for an accident-free workplace. <i>For more details: <a href="#">Occupational Health and Safety</a></i>		GRI 403: Occupational health and safety 2018
<b>Vigilance against forced labour</b>	We enforce a human rights framework that spans its operations, subsidiaries, and stakeholders in the business value chain. Committed to international standards, we regularly conduct Human Rights Due Diligence and Risk Assessments, aiming to prevent and mitigate human rights issues. <i>For more details: <a href="#">Human Rights</a></i>	 	GRI 407: Freedom of Association and Collective Bargaining 2016, GRI 408: Child Labor, GRI 409: Forced or Compulsory Labor 2016, GRI 411: Rights of Indigenous Peoples 2016
<b>Waste management and circularity</b>	We value the circular economy, aiming to reuse and recycle resources across product lifecycles by implementing effective waste management, including waste reduction, reuse, and recycling. Also, contributes to environmental care and reduced greenhouse gas emissions. Embracing the 3Rs—reduce, reuse, recycle—and sorting waste for proper disposal, to ensure minimal landfill waste, reduced community impact, and sustainable resource consumption. <i>For more details: <a href="#">Environmental and Resource Management</a></i>	 	GRI 306: Waste 2020

Impact level ●●● Very High (Value Creation) ●● High (Enabler) ● Medium to low (Foundation)

# MATERIAL TOPIC CHANGES IN 2023



We revisited and reviewed materiality topics in 2023. The identified material topics align with those in 2022 which continued to play a pivotal role in shaping our corporate sustainability direction.

In addition, we reviewed and expanded our assessment scope to include the 2 new co-generation power plants commissioned in 4Q/2023 and ongoing solar rooftop projects. Projects identified as joint ventures are excluded to align sustainability reporting to reflect organisational control. See "About this Report" and "Remarks" on **Form 56-1 (One Report) 2023** for details.

# INTEGRATION OF ENTERPRISE RISK PROCESS

B.Grimm Power has incorporated the evaluation of Environmental, Social, and Governance (ESG) risks into our risk management framework. The outcomes of our materiality assessment have been woven into our Enterprise Risk Management (ERM) Process, enhancing our ability to identify and address corporate risks through risk assessment (risk identification) process. The summary of ESG related risks, the materiality topics from materiality assessment, and linkage to corporate risks is shown on [“Risk Governance and Risk Management Process”](#)



# APPENDIX

## ESG Megatrends

We considered 27 key ESG-related megatrends that relevant to power producers.

### 1. Decarbonisation

Increasing commitments by countries and companies to decarbonize, including in South East Asia.

### 2. Carbon pricing

Rising adoption of CO<sub>2</sub> pricing (voluntary and mandatory carbon markets).

### 3. Rapid growth of renewables

Strong growth of renewable capacity, driven by fighting against climate change and declining costs, including solar, wind, geothermal, etc.

### 4. Electrification

Electrification of mobility (electric vehicles) and certain residential, commercial & industrial use replacing fossil fuels.

### 5. Energy efficiency and demand-response

Adoption and monetisation of energy efficiency in residential, commercial & industrial use and demand-response.

### 6. Fuel price volatility

High volatility of fuel prices, driven by supply and demand disruptions, including exceptionally high prices – compared to stable low-cost renewable production.

### 7. Biofuels, Clean Fuels

Biofuels and clean fuels for applications that are costly to electrify (e.g. industrial heating). Including green hydrogen and sustainable aviation fuels, from production, storage/transport to applications.

### 8. Energy storage

Rapid uptake of energy storage (decentralised and large-scale), due to increasing renewable penetration, EV adoption and technology improvements in storage / batteries.

### 9. Decentralisation and smart grid management

Decentralised renewable production (e.g. solar rooftop) and increasing complexity to manage grid leading to smart grid technology adoption.

### 10. Market reforms

Further liberalisation of electricity markets in South East Asia and adoption of third-party grid access leading to corporate PPAs.

### 11. Digitalisation and automation

Adoption of digital technologies across the value chain, from production (e.g. AI-based renewable production optimisation), transmission & distribution, retail to waste tracking (e.g. Blockchain P2P).

### 12. Carbon capture

Research and interest in carbon capture technologies and CO<sub>2</sub> storage/use–given importance in decarbonisation pathways, but despite limited breakthrough so far.

### 13. Evolving renewable energy trade policies

Uncertain renewable energy trade policies as countries are increasing renewable energy capacity to achieve the Net zero emissions target.

### 14. Circularity

Application of a circular economy across the entire company and its value chain which involves with the idea of consistently avoiding waste and striving for re-use.

### 15. Greater regionalisation/ internationalisation

Investment in the power business and its related businesses in both domestic and overseas markets to maintain and increase shareholder value.

### 16. Diversity quotas

Define the ratio of gender/ethnicity for all management levels and for the workforce as a whole.

### 17. Green IT

Minimisation of the environmental impact of IT and allow for company-wide emission reductions based on technological innovations e.g. consolidate data centers and migrate to the cloud.

### 18. Executives pay linked to sustainability

Linkage between bonuses and a scorecard for ESG criteria (e.g. rewarding CO<sub>2</sub>-neutral travel and adoption of 3R's waste management).



### 19. Sustainability at the board

Establishment of a sustainability committee/board independent from management board with veto rights, maximum tenure and a seat reserved for an NGO representative.

### 20. Sustainable supply chain

Development of supplier code of conduct, supplier meeting and supplier audit program to encourage suppliers to meet company's sustainability expectation as outlined in the supplier code of conduct.

### 21. ESG auditing

Annual auditing of a company's sustainability achievements by an impartial, external service provider and results are communicated internally and externally.

### 22. Cyber security enhancement

Establishment of security operations center to handle cyberattacks and increase employee awareness on key information security principles.

### 23. Commercialisation throughout value chain

Play a proactive role in commercialising innovative products and solutions throughout the value chain e.g. providing solutions for energy efficiency.

### 24. Green financing

Issuance of bonds to acquire funds for investing in environmentally sustainable and socially responsible projects e.g. in renewable energy.

### 25. Rise of carbon sequestration projects

Setting actionable, science-based targets for initiatives e.g. reforestation as well as establishing a system to measure progress.

### 26. Corporate culture of innovation

Creating space for sharing and innovations ideas will be selected to further implement and partnerships with e.g. start-ups to encourage the exchange of knowledge.

### 27. Biodiversity

Impacts on biodiversity that adversely affect the delivery of ecosystem services valued by humans must be reduced through e.g. habitat restoration, invasive species reduction and educating people.



## Longlist topic

We considered this 51 key longlist topics as following:

### Environment

- 1 Green Finance
- 2 Renewable Energy Generation
- 3 Energy Transition Risks
- 4 Internal Carbon Pricing
- 5 Energy Consumption
- 6 Water Consumption
- 7 Effluent and Waste Water Management
- 8 Biodiversity
- 9 Scope 1 GHG Emissions
- 10 Scope 2 GHG Emissions
- 11 Scope 3 GHG Emissions
- 12 Air Pollution and Toxic Emission
- 13 Waste Management and Circularity

### Social

- 14 Environmental Grievance Mechanism
- 15 Talent Attraction
- 16 Relations between Labour and Management
- 17 Occupational Health and Safety
- 18 Training and Education
- 19 Diversity and Equal Opportunity
- 20 Remuneration Equality for Women and Men
- 21 Non-discrimination
- 22 Freedom of Association and Collective Bargaining
- 23 Child Labour

- 24 Forced or Company Labour
- 25 Security Practices
- 26 Indigenous People's Rights
- 27 Local Communities
- 28 Resettlement Management
- 29 Public Policy
- 30 Anti-competitive Behavior
- 31 Anti-corruption
- 32 Disaster/Emergency Planning and Response
- 33 Consumer Health and Safety
- 34 Product and Service Labeling
- 35 Marketing Communication
- 36 Customer Privacy
- 37 Energy Access and Affordability
- 38 Information Accessibility

### Governance

- 39 Growth Opportunities and Economic Performance
- 40 Indirect Economic Impacts
- 41 Procurement Practices
- 42 Generation Availability and Reliability
- 43 Energy Generation Efficiency
- 44 Grid Resilience
- 45 Demand-side Management
- 46 Research, development and Innovation
- 47 Plant Decommissioning
- 48 Governance
- 49 Sustainability-linked Remuneration
- 50 Cybersecurity
- 51 Digital Transformation



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