

**August 7, 2024**

**GEORGIA GLOBAL UTILITIES  
Sustainable Development Impact Assessment**

## **SUSTAINABLE DEVELOPMENT IMPACT DISCLOSURE: Georgia Global Utilities (“GGU”)**

### **Executive Summary**

Georgia Global Utilities (“GGU”) is a water utility and renewable energy holding company in Georgia, which supplies potable water and provides wastewater collection and processing services to more than one-third of Georgia’s population (serving c. 1.3 million people) . GGU operates with a focus on sustainable water management, climate change mitigation through hydropower generation, and pollution prevention and control. The company has leveraged the Impact Disclosure Guidance to provide a Sustainable Development Impact Disclosure, showcasing its contributions towards UN Sustainable Development Goals #6, #7, and #13.

### **Introduction**

Georgia Global Utilities (“GGU or the “Issuer”) provides water and wastewater collection and processing services to approximately 650,000 residential customers and 42,000 commercial customers in Georgia, serving a total population of approximately 1.3 million in Georgia's capital city of Tbilisi and surrounding cities of Rustavi, Mtskheta and Gardabani. In addition to its water and sanitation services, GGU owns and operates four hydropower plants (“HPPs”), the Zhinvali, Tetrikhevi, Saguramo and Bodorna plants, which have a total installed capacity of 149 megawatts (“MW”). The HPPs are used to power GGU’s water distribution network, and the remainder of the energy generated by the HPPs is sold to third parties on the free market.

GGU is a natural monopoly in Georgia’s capital city of Tbilisi and the surrounding areas and plays an important role in providing critical clean water and energy in Georgia. GGU’s operations and strategy are guided by three main objectives: (i) sustainable water management, (ii) climate change mitigation through hydropower generation, and (iii) pollution prevention and control.

GGU has leveraged the [Impact Disclosure Guidance](#), 2024 to complement its sustainability and labelled bonds disclosure by providing a Sustainable Development Impact Disclosure (“SDID”). This guidance was prepared by the Impact Disclosure Taskforce, a working group comprised of institutional investors, commercial and investment banks and other stakeholders such as non-governmental organizations, law firms and others. The SDID showcases GGU’s intended contributions towards the UN SDGs and produces voluntary entity-level impact reporting. By applying this guidance, GGU intends to contribute to three of the 17 UN Sustainable Development Goals (UN SDGs): #6 (Ensure availability and sustainable management of water and sanitation for all), #7 (Ensure access to affordable, reliable, sustainable and modern energy for all), and #13 (Take urgent action to combat climate change and its impacts).


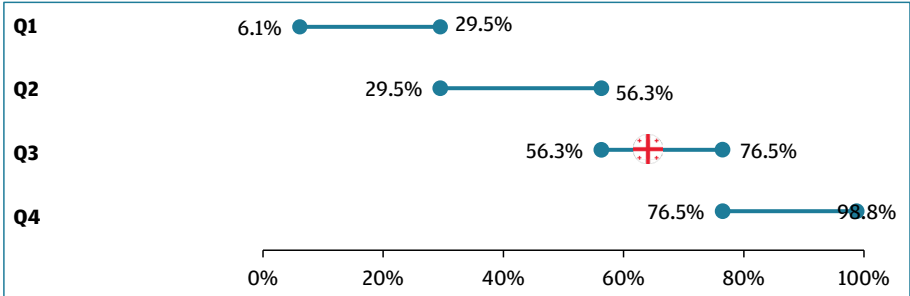
## Development Outputs and Outcomes

This section highlights GGU's intentions, consistent with their business strategy, to generate incremental positive impact in Georgia through their products and business operations. The table below outline (1) how GGU's business strategy contributes to specific SDGs and (2) the actions taken by GGU to address identified SDG gaps in Georgia and relative theory of change as well as metrics selection and incremental target setting.

### 1. Intended Impacts of Business Strategy

Intended Impacts of Business Strategy		SDG Contribution
Product & Services	#1: Expand Access to Safe and Affordable Drinking Water	SDG 6 - Water and Sanitation
	#2: Enhance Infrastructure Resilience	SDG 11 - Sustainable Cities and Communities
	#3: Increase Hydropower Energy Generation and Avoided Emissions	SDG 7 - Affordable and Clean Energy, and SDG 13 - Climate Action
Business Operations	#4: Improve Energy Efficiency of Operations	SDG 13 - Climate Action
		SDG 7 - Affordable and Clean Energy

## 2. Metrics Selection, Incremental Target Setting and Theory of Change underpinning SDG contribution

<b>Intended Impact #1: Expand Access to Safe and Affordable Drinking Water</b>															
<p><i>SDG Contribution and Gap Assessment<sup>1</sup></i></p> 	<p><b>Target 6.1:</b> By 2030, achieve universal and equitable access to safe and affordable drinking water for all</p>														
	<p><b>Indicator 6.1.1:</b> Proportion of population using safely managed drinking water services</p> <div style="border: 1px solid black; padding: 10px; margin: 10px 0;">  <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr> <th>Quarter</th> <th>Start (%)</th> <th>End (%)</th> </tr> </thead> <tbody> <tr> <td>Q1</td> <td>6.1%</td> <td>29.5%</td> </tr> <tr> <td>Q2</td> <td>29.5%</td> <td>56.3%</td> </tr> <tr> <td>Q3</td> <td>56.3%</td> <td>76.5%</td> </tr> <tr> <td>Q4</td> <td>76.5%</td> <td>98.8%</td> </tr> </tbody> </table> </div> <p>In Georgia, 69.1% of the population uses safely managed drinking water services, relative to the median for peer countries of 56.3%.<sup>2</sup></p>	Quarter	Start (%)	End (%)	Q1	6.1%	29.5%	Q2	29.5%	56.3%	Q3	56.3%	76.5%	Q4	76.5%
Quarter	Start (%)	End (%)													
Q1	6.1%	29.5%													
Q2	29.5%	56.3%													
Q3	56.3%	76.5%													
Q4	76.5%	98.8%													
<p><b>Action to address SDG gap and achieve intended impacts</b></p>	<ul style="list-style-type: none"> <li>• Increase the number of residential and commercial clients with access to clean drinking water supply and services</li> <li>• Increase the population served by clean drinking water and processing services</li> <li>• Increase residential and commercial customer base</li> </ul>														
<p><b>Theory of change (how action is expected to address SDG gap)</b></p>	<ul style="list-style-type: none"> <li>• By increasing access to clean drinking water for residential and commercial clients, expanding the population served by clean water services, and growing the customer base for these services, GGU can improve water quality, reduce waterborne diseases, promote hygiene practices, support sustainable water management, and contribute to achieving universal access to clean water and sanitation.</li> </ul>														


<sup>1</sup> Using most recent data available. Peer countries refers to 144 countries eligible to borrow from the World Bank Group.

<sup>2</sup> Source: WHO/UNICEF Joint Monitoring Programme for Water Supply, Sanitation and Hygiene (2023) Data retrieved from UN Statistics - SDG 6.1.1: Proportion of population using safely managed drinking water services, by urban/rural (%) as of 28 June 2024 (n=81).

Metric	Unit	Baseline		Target	
		Year	Value	Year	Value
Customers	#	2023	688,521	2028	784,147
Residential customers	#	2023	646,407	2028	737,146
Commercial customers	#	2023	42,114	2028	47,001
Individuals benefitting from clean drinking water	#	2023	1,252,997	2028	1,428,885

**Intended Impact #2: Enhance Infrastructure Resilience**

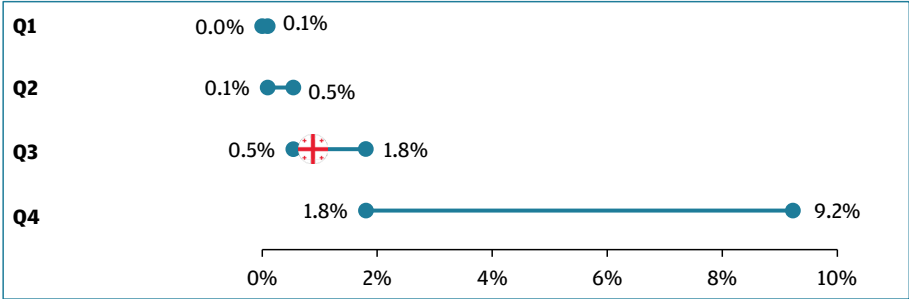
*SDG Contribution and Gap Assessment*



**Target 11.5:** By 2030, significantly reduce the number of deaths and the number of people affected and substantially decrease the direct economic losses relative to global gross domestic product caused by disasters, including water-related disasters, with a focus on protecting the poor and people in vulnerable situations

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**Indicator 11.5.3:** (a) Damage to critical infrastructure and (b) number of disruptions to basic services, attributed to disasters<sup>3</sup>



Quarter	Start (%)	End (%)
Q1	0.0%	0.1%
Q2	0.1%	0.5%
Q3	0.5%	1.8%
Q4	1.8%	9.2%


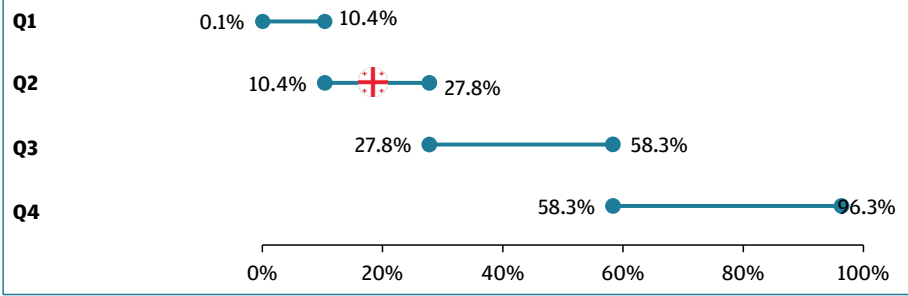
<sup>3</sup> Due to the lack of data for this indicator, this assessment used *droughts, floods, extreme temperatures (% population, average 1990-2009)* indicator from the World Bank.

	In Georgia the average percentage of the population affected by droughts, floods and extreme temperature events is 0.8% which is higher than the median for peer countries of 0.5%. <sup>4</sup>
<b>Action to address SDG gap and achieve intended impacts</b>	<ul style="list-style-type: none"> <li>Continuing to benefit people in the Aragvi river valley area through flood mitigation technology</li> </ul>
<b>Theory of change (how action is expected to address SDG gap)</b>	<ul style="list-style-type: none"> <li>The implementation of flood mitigation technology in the region not only protects the local population and infrastructure from the adverse effects of flooding but also fosters sustainable development by reducing vulnerability to disasters, preserving ecosystems, and supporting inclusive and resilient urban growth.</li> </ul>

Metric	Unit	Baseline		Target	
		Year	Value	Year	Value
<b>Individuals benefitting from flood mitigation</b>	#	2023	15,000	GGU intends to maintain this value	

<b>Intended Impact #3: Increase Hydropower Energy Generation and Avoided Emissions</b>	
<i>SDG Contribution and Gap Assessment</i>	<b>Target 7.2:</b> By 2030, increase substantially the share of renewable energy in the global energy mix
	<b>Indicator 7.2.1:</b> Renewable energy share in the total final energy consumption (%)

<sup>4</sup> Source: The OFDA/CRED International Disaster Database (1997-2009).2024. Data retrieved from World Bank Data: Droughts, floods, extreme temperatures (% of population, average 1990-2009) as of 25 July 2024 (n=129).


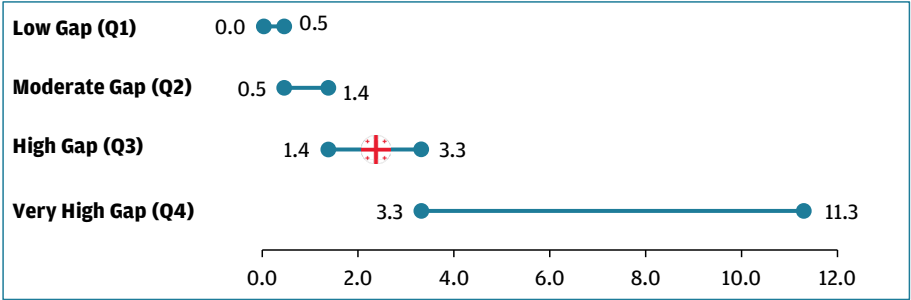
	 <p>In Georgia, 25.2% of energy consumed is renewable, a metric which is slightly lower than the median for peer countries of 27.8%<sup>5</sup></p>
<b>Action to address SDG gap and achieve intended impacts</b>	<ul style="list-style-type: none"> <li>Continue to operate HPPs and report on their annual energy generation and capacity</li> </ul>
<b>Theory of change (how action is expected to address SDG gap)</b>	<ul style="list-style-type: none"> <li>The consistent operation of HPPs ensures a reliable energy supply, reduces reliance on fossil fuels, and supports the transition to cleaner and more sustainable energy sources, ultimately helping to improve energy access and promote sustainable development in Georgia.</li> </ul>

Metric	Unit	Baseline		Target	
		Year	Value	Year	Value
<b>Energy generation of HPPs</b>	GWh	2023	405.3	<i>GGU has not set a target but will report realized values on an annual basis</i>	
<b>Zhinvali HPP</b>	GWh	2023	374.9	<i>GGU has not set a target but will report realized values on an annual basis</i>	
<b>Tetrikhevi HPP</b>	GWh	2023	2.8	<i>GGU has not set a target but will report realized values on an annual basis</i>	
<b>Saugramo HPP</b>	GWh	2023	18.9	<i>GGU has not set a target but will report realized values on an annual basis</i>	
<b>Bordona HPP</b>	GWh	2023	8.7	<i>GGU has not set a target but will report realized values on an annual basis</i>	
<b>Energy capacity of HPPs</b>	MW	2023	149.1	<i>GGU intends to maintain this value</i>	

<sup>5</sup> Source: Energy Balances, UN Statistics Division (2023), IEA (2023), World Energy Balances; Energy Balances, UN Statistics Division (2023). Data retrieved from UN Statistics - SDG 7.2.1: Renewable energy share in the total final energy consumption (%) as of 22 May 2024 (n=144).

<b>Zhinvali HPP</b>	MW	2023	130.0	<i>GGU intends to maintain this value</i>
<b>Tetrikhevi HPP</b>	MW	2023	12.4	<i>GGU intends to maintain this value</i>
<b>Saugramo HPP</b>	MW	2023	4.2	<i>GGU intends to maintain this value</i>
<b>Bordona HPP</b>	MW	2023	2.5	<i>GGU intends to maintain this value</i>


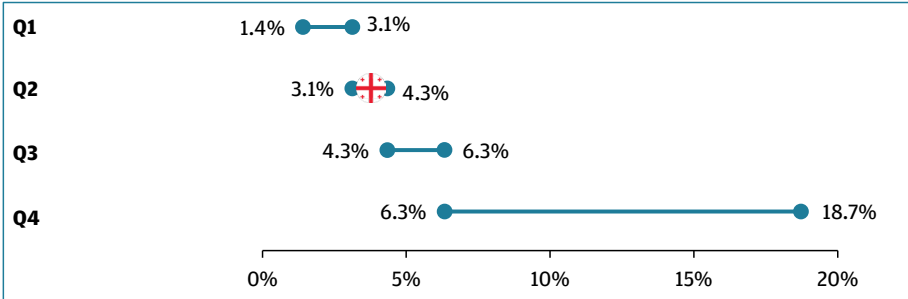


<p><i>SDG Contribution and Gap Assessment</i></p> 	<p><b>Target 13.2:</b> Integrate climate change measures into national policies, strategies and planning</p>
	<p><b>Indicator 13.2.2:</b>CO2 emissions (metric tons per capita)</p>
	 <p>In Georgia, CO2 emissions totaled 2.8 metric tons per capita, a metric which is higher than the median for peer countries of 1.4 metric tons per capita<sup>6</sup></p>
<p><b>Action to address SDG gap and achieve intended impacts</b></p>	<ul style="list-style-type: none"> <li>Contributing to GHG emissions reduction in Georgia by avoiding emissions through its HPPs energy production</li> </ul>
<p><b>Theory of change (how action is expected to address SDG gap)</b></p>	<ul style="list-style-type: none"> <li>By contributing to greenhouse gas (GHG) emissions reduction in Georgia through avoiding emissions in its Hydro Power Plants (HPPs) energy production, GGU contributes toward mitigating the impacts of climate change</li> </ul>

Metric	Unit	Baseline		Target	
		Year	Value	Year	Value
<b>Avoided Emissions - Zhinvali HPP</b>	tCO2	2023	65,814	<i>GGU has not set a target but will report realised values on an annual basis</i>	
<b>Avoided Emissions - Tetrichevi HPP</b>	tCO2	2023	2,304	<i>GGU has not set a target but will report realised values on an annual basis</i>	
<b>Avoided Emissions - Saugramo HPP</b>	tCO2	2023	4,293	<i>GGU has not set a target but will report realised values on an annual basis</i>	
<b>Avoided Emissions - Bordona HPP</b>	tCO2	2023	1,588	<i>GGU has not set a target but will report realised values on an annual basis</i>	


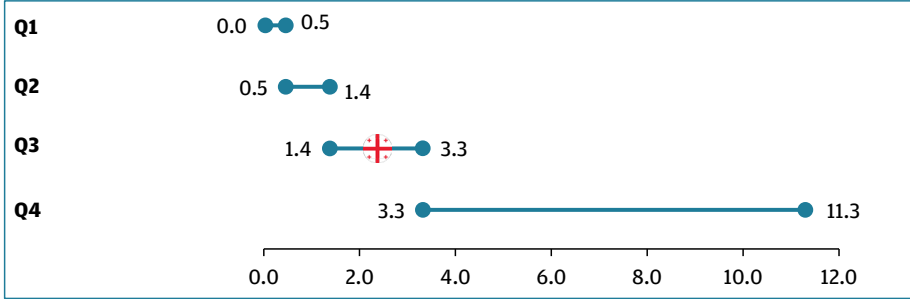
<sup>6</sup> Source: Climate Watch Historical GHG Emissions (1990-2020). 2023. Washington, DC: World Resources Institute. Data retrieved from World Bank Data: CO2 emissions (metric tons per capita) as of 22 May 2024 (n=143).

## Intended Impact #4: Improve Energy Efficiency of Operations

<p><i>SDG Contribution and Gap Assessment</i></p> 	<p><b>Target 7.3:</b> By 2030, double the global rate of improvement in energy efficiency</p>
	<p><b>Indicator 7.3.1:</b> Energy intensity level of primary energy (megajoules per constant 2017 purchasing power parity GDP)</p>
	<div style="border: 1px solid black; padding: 10px;">  <p>In Georgia, the energy intensity level of primary energy is 3.9 megajoules per constant 2017 purchasing power GDP, a metric which is lower than the median for peer countries of 4.3 megajoules per constant 2017 purchasing power GDP.<sup>7</sup></p> </div>
<p><b>Action to address SDG gap and achieve intended impacts</b></p>	<ul style="list-style-type: none"> <li>Reducing the energy consumption of the water supply system</li> </ul>
<p><b>Theory of change (how action is expected to address SDG gap)</b></p>	<ul style="list-style-type: none"> <li>By implementing measures to decrease energy usage in the water supply system, such as optimizing pumping processes, upgrading equipment, and adopting renewable energy solutions, GGU can lower its carbon footprint, decrease energy costs, and support the transition towards a more sustainable and environmentally friendly energy system in Georgia.</li> </ul>

Metric	Unit	Baseline		Target	
		Year	Value	Year	Value
Energy consumption per customer (commercial and residential) of the water supply system	kWh	2023	245.2	2028	225.0

<sup>7</sup> Source: Energy Balances, UN Statistics Division (2023), IEA (2023), World Energy Balances; Energy Balances, UN Statistics Division (2023). Data retrieved from UN Statistics - 7.3.1: Energy intensity level of primary energy (megajoules per constant 2017 purchasing power parity GDP) as of 22 May 2024 (n=143).

<p><i>SDG Contribution and Gap Assessment</i></p> 	<p><b>Target 13.2:</b> Integrate climate change measures into national policies, strategies and planning</p>
	<p><b>Indicator 13.2.2:</b>CO2 emissions (metric tons per capita)</p>  <p>In Georgia, CO2 emissions totaled 2.8 metric tons per capita, a metric which is higher than the median for peer countries of 1.4 metric tons per capita.</p>
<p><b>Action to address SDG gap and achieve intended impacts</b></p>	<ul style="list-style-type: none"> <li>Reducing Scope 1 and Scope 2 emissions</li> </ul>
<p><b>Theory of change (how action is expected to address SDG gap)</b></p>	<ul style="list-style-type: none"> <li>By lowering Scope 1 and Scope 2 emissions, GGU contributes toward mitigate the impacts of climate change</li> </ul>

Metric	Unit	Baseline		Target	
		Year	Value	Year	Value
Scope 1 emissions from combustion of fuels in owned or leased transportation vehicles	gCO2/L	2023	6,079	<i>GGU has not set a target but will report realised values on an annual basis</i>	
Scope 2 emissions from electricity, heat and steam purchased for own use at sites	gCO2/KWh	2023	5,587	<i>GGU has not set a target but will report realised values on an annual basis</i>	

## POLICIES AND PROCEDURES TO MITIGATE NEGATIVE IMPACTS

To mitigate negative impacts, GGU has implemented quantitative metrics, policies and procedures aligned with international standards. These efforts are outlined in the table below:

Themes	Policy Document	Policy Description	Alignment with international standards
<b>Climate Change Mitigation and Adaption</b>	Environmental and Social Risk Management (ESMS) framework	GGU's ESMS framework addresses climate change and mitigation through sustainable use of energy and natural resources. It incorporates climate risk assessments and stakeholder engagement. The ISO certification ensures a systematic approach to environmental management, including climate-related issues.	IFC Performance Standard 1, ISO 14001:2015
<b>Labor and Safety</b>	Health and Safety management plan	GGU's Health and Safety Management Plan complies with IFC Performance Standards and ISO. It covers working conditions, employee grievance policies, anti-harassment measures, and protection against child or forced labor. They track Lost Time Incident and Severity indices for workplace safety.	IFC Performance Standard 2, ISO 45001:2018
<b>Water Management</b>	ESMS Framework	GGU ensures 24-hour access to clean water and sanitation, expanding water supply and sewage networks. They focus on reducing Non-Revenue Water and maintain ISO certification for quality management. Water quality is controlled through an accredited microbiological laboratory and they comply with Directive 2007/50/EC on flood risk management.	IFC General EHS Guidelines, ISO 9001:2015, Directive 2007/50/EC, ISO 17025:2018
<b>Waste management</b>	ESMS Framework	The ESMS covers sustainable waste management and pollution prevention for air, water, and soil. It aligns with IFC Performance Standard on resource efficiency and pollution prevention	IFC Performance Standard 3
<b>Land Acquisition</b>	Land Acquisition and Compensation Policy	GGU has a specific Land Acquisition and Compensation Policy, ensuring responsible practices in land acquisition for their projects.	IFC Performance Standard 8

<p><b>Cross-cutting themes and additional practices</b></p>	<p>ESMS framework, Business Ethics Policy, Responsible Procurement Policy</p>	<p>GGU addresses business ethics, including prevention of corruption, money laundering, fraud, and anti-competitive practices. They integrate environmental and social factors into the supply chain through responsible procurement. The company uses GlobalSUITE software for process optimization, risk reduction, and improved compliance.</p>	<p>ISO 9001:2015, ISO 14001:2015, ISO 45001:2018</p>
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## REPORTING TABLE

**GGU has committed to annual monitoring and reporting for the metrics in the table below.**

Development outputs and outcomes					Realized outputs and outcomes				
Metric	Baseline	Baseline Year	Target <sup>8</sup>	Target Year	2024	2025	2026	2027	2028
<i>Water and Sanitation Services</i>									
Customers	<b>688,521</b>	2023	<b>784,147</b>	2028					
Residential customers	<b>646,407</b>	2023	<b>737,146</b>	2028					
Commercial customers	<b>42,114</b>	2023	<b>47,001</b>	2028					
Individuals benefitting from clean drinking water	<b>1,252,997</b>	2023	<b>1,428,885</b>	2028					
Individuals benefitting from flood mitigation	<b>15,000</b>	2023	<i>GGU intends to maintain this value</i>						
<i>Hydropower Energy Generation<sup>9</sup> and Avoided Emissions</i>									
Renewable Energy Generation of HPPs (GWh) <sup>10</sup>	<b>405</b>	2023	<i>P50</i>						
Zhinvali HPP	<b>375</b>	2023	<i>P50</i>						

<sup>8</sup> Where target values are not available, GGU has committed to reporting realized values on an annual basis.

<sup>9</sup> GGU intends to achieve P50 generation values per year on average.

<sup>10</sup> Renewable energy generation of HPP assets is subject to environmental and climate conditions.

Tetrikhevi HPP	<b>2.8</b>	2023	<i>P50</i>					
Saguramo HPP	<b>18.9</b>	2023	<i>P50</i>					
Bordona HPP	<b>8.7</b>	2023	<i>P50</i>					
Renewable energy capacity for HPPs (MW)	<b>149.1</b>	2023	<i>GGU intends to maintain this value</i>					
Zhinvali HPP	<b>130.0</b>	2023	<i>GGU intends to maintain this value</i>					
Tetrikhevi HPP	<b>12.4</b>	2023	<i>GGU intends to maintain this value</i>					
Saguramo HPP	<b>4.2</b>	2023	<i>GGU intends to maintain this value</i>					
Bordona HPP	<b>2.5</b>	2023	<i>GGU intends to maintain this value</i>					
<b>Annual avoided CO2 emissions (tCO2) of operating assets<sup>11</sup></b>								
Zhinvali HPP	<b>65,814</b>	2023	<i>GGU has not set a target but will report realized values on an annual basis</i>					
Tetrikhevi HPP	<b>2,304</b>	2023	<i>GGU has not set a target but will report realized values on an annual basis</i>					
Saguramo HPP	<b>4,293</b>	2023	<i>GGU has not set a target but will report realized values on an annual basis</i>					
Bordona HPP	<b>1,588</b>	2023	<i>GGU has not set a target but will report realized values on an annual basis</i>					
<b>Energy Efficiency of Operations</b>								
Scope 1 emissions from combustion of fuels in owned or leased	<b>6,079</b>	2023	<i>GGU has not set a target but will report realized</i>					

<sup>11</sup> The methodology, formula and coefficients used for the calculation for avoided emissions are taken from most recent guidelines recommended by the IPCC. This method calculates CO2 emissions and is based on the amount of fuel consumed, measured in energy units and multiplied by the corresponding emission factors for gases and specific fuels. The savings in terms of GHG reduction potential for the power plants are calculated using their average annual generation.

transportation vehicles (gCO2/L)			<i>values on an annual basis</i>					
Scope 2 emissions from electricity, heat and steam purchased for own use at sites (gCO2/kwh)	<b>5,587</b>	2023	<i>GGU has not set a target but will report realized values on an annual basis</i>					
Energy consumption per customer (commercial and residential) of the water supply system (kWh)	<b>245.2</b>	2023	<b>225.0</b>	2028				