

# Debt Management Strategy

Georgian State Electrosystem JSC

## **I. Debt Management Strategy for GSE**

### **A. Background**

1. Georgian State Electrosystem JSC (GSE or the Company) is a 100% state-owned joint stock company owned by LEPL National Agency of State Property. The management rights of GSE have been transferred to the Ministry of Economy and Sustainable Development of Georgia (MoESD). GSE's activities pertaining to dispatch and transmission are regulated by the Georgian National Energy and Water Supply Regulatory Commission (GNERC), which determines tariffs, provides technical expertise regarding implementation of new investment projects and develops drafts of grid codes.
2. Due to expected insolvency during 2008, the Company entered into a rehabilitation plan, which commenced in November 2008 and lasting 15 years until December 2023, however ended early in January 2021. The Ministry of Finance (MoF), the largest secured creditor of the Company, approved the Plan of Rehabilitation (the Plan). At that time, a significant part of GSE's infrastructure was obsolete and in need of repair and replacement as well as new investment. Over the past 10 years, a significant amount of investment and rehabilitation of existing systems has been made that enhances the reliability and security of Georgia's power network. However, debt has also risen significantly during this period and currently stands at a level where financial sustainability of the consolidated entity is in question, primarily due to financial difficulties at its Energotrans subsidiary, which merged into GSE in December 2020.
3. In 2009, Energotrans became a 100%-owned subsidiary of GSE. Energotrans has transmission lines and a substation in southern Georgia that connect into Turkey, enhance the stability of the national network and provide for the export, import and transit of power. At the time of acquisition, Energotrans did not have any debt; as of the end of 2017, it had approximately GEL 600 MM (USD\$239 MM), which represents over half of GSE's total debt of GEL 1.1 B (USD\$438 MM). Adverse FX movements, slower than anticipated growth and a large impairment charge have left Energotrans in a state of insolvency. At the end of 2017, liabilities exceeded assets, debt covenants had been breached and contractual payments were missed, which required the MoF to cover missed debt payments.

### **B. Rationale and Objectives of a Sustainable Debt Management Strategy**

4. Financial sustainability and an associated debt management strategy are necessary for GSE to become independent of external assistance or support from the government, maintain long-term profitability, reduce cash flow and earnings uncertainty and have increased options for access to capital, including private investors.
5. The objective of this debt management strategy (the Strategy) is to provide guidance and steps to ensure sound financial judgment in the issuance and management of debt. The goals of the Strategy include:
  - Minimizing the cost of capital within acceptable risk parameters;
  - Achieving and maintaining acceptable credit metrics;
  - Positioning the Company to eventually be able to access the capital markets and private investors independent of the MoF's current on-lending arrangement;
  - Enabling continued use of debt for future investment plans;
  - Managing FX and interest rate risk exposure within acceptable risk parameters;

- Aligning debt repayment with the asset life cycle and cash generation.

### C. Debt Management - Roles and Responsibilities

6. Debt management requires a rationalized approach to investment and financing decisions. It requires careful evaluation of the risks and merits of an investment along with choosing the appropriate form of financing. This process requires GSE's Supervisory Board and relevant Committees to adopt a rigorous stakeholder review process for the TYNDP and approval of new infrastructure investments and to consider the viability of all investments in context with available financing options.
7. Should new investments require MoF support to fund - either directly or from onlending IFI debt – then the MoF shall have the right of final investment approval. Approval shall be contingent on: i) planned investments and funding are in alignment with the MoF's national debt management strategy; ii) planned investments are rationalized by GSE's Board of Directors and Supervisory Board, taking into consideration the risk and return of both the investment and the proposed financing structure.
8. The initiation of financing requirements begins with the Board of Directors making investment and financing recommendations to the Supervisory Board. Additionally, the Board of Directors shall provide necessary support as required by the Supervisory Board in making its investment and financing decisions. The Board of Directors will be supported in its analysis, recommendations and actions by relevant departments within GSE including finance, treasury, accounting, International Projects and Reporting, IT and audit groups.
9. The analysis for debt financing by the finance department will require consideration of the risk and return of the project in context with the proposed debt financing. Financing decisions will require analyses of tradeoffs between the cost of debt and the riskiness and suitability of the financing option (i.e. FX exposure, tenor, fixed vs. floating interest rates, secured vs. unsecured). The finance department will depend on the accounting department for financial reporting and the treasury department for managing liquidity, making debt payments, monitoring interest and FX rates, maintaining relationships with banks and brokerages and sharing relevant market intelligence that may impact financing decisions.
10. Monitoring of loan payments and covenant compliance shall be performed by the treasury department, which will share details of this information with the accounting and finance department on a monthly basis. Financial reports prepared by the accounting department shall be shared with the finance department, the Board of Directors and Supervisory Board on a monthly basis. Reports will include a complete set of financial statements as well as specialized management reports as requested for monitoring loan payments, covenant compliance and other financial related needs.

### 11. Roles and Responsibilities Matrix

**Table 1. Responsibilities Matrix**

Body/Position	Responsibilities	Disclosure
Supervisory Board	<ul style="list-style-type: none"> <li>• Approval of loans and capital projects</li> <li>• Supervision of internal auditors</li> </ul>	<ul style="list-style-type: none"> <li>• Signs financial statements before they are published</li> </ul>

General Director / Board of Directors	<ul style="list-style-type: none"> <li>• Recommendations on loans and capital projects</li> <li>• Determining appropriate level of indebtedness</li> <li>• Executing investment and financing strategy</li> </ul>	<ul style="list-style-type: none"> <li>• Submits financial statements to auditors and supervisory board of directors</li> </ul>
Financial Director /Finance Department	<ul style="list-style-type: none"> <li>• Supervision of Treasury</li> <li>• Presentation of new loans to Board of Directors for approval</li> <li>• Participation in loan negotiations</li> <li>• Recommendations and analysis of financing and investment strategies</li> </ul>	<ul style="list-style-type: none"> <li>• Submits quarterly financial reports to Board of Directors and Supervisory Board</li> <li>• Maintains records on loan payment and debt schedule</li> </ul>
Treasury Department	<ul style="list-style-type: none"> <li>• Quantification of liquidity needs</li> <li>• Execution of debt payments</li> <li>• Monitoring of payments and compliance of loan covenants</li> <li>• Maintain regular consultation with banks and brokerages regarding market conditions</li> </ul>	<ul style="list-style-type: none"> <li>• Prepares relevant information and data for accounting department</li> </ul>
International Project and Reporting Department	<ul style="list-style-type: none"> <li>• Monitoring of payments and compliance of loan covenants and communication with IFIs</li> <li>• Participation in loan negotiations</li> <li>• Maintaining relationships with IFIs</li> </ul>	<ul style="list-style-type: none"> <li>• Maintains records on loan payment and debt schedule</li> </ul>
Accounting Department	<ul style="list-style-type: none"> <li>• Monitoring of payments and compliance of loan covenants</li> <li>• Maintaining accurate and timely financial reporting</li> </ul>	<ul style="list-style-type: none"> <li>• Preparation of financial statements</li> </ul>
External Auditors	<ul style="list-style-type: none"> <li>• Advising treasury on tax and accounting treatment of financial instruments</li> </ul>	<ul style="list-style-type: none"> <li>• Auditor's letter appended to financial statements</li> <li>• Report to the Supervisory Board</li> </ul>
Information Technology Department	<ul style="list-style-type: none"> <li>• Overseeing integrity and system compliance of ERP</li> <li>• Recording of loan balances and payments</li> </ul>	Not applicable

#### D. Liquidity and solvency credit metrics

12. Borrowing decisions recommended by the finance department and Board of Directors need to ensure GSE's financial sustainability. Following parameters set by GSE's risk management committee and Supervisory Board, liquidity ratios (measuring GSE's ability to cover short-term obligations) and solvency ratios (the ability to meet long-term debt payments) need to be observed and taken into consideration when making financing decisions. These key credit metrics need to be monitored on an ongoing basis by the Company. By monitoring trends in these ratios over time, GSE shall detect changes in credit conditions and proactively react as needed to keep its sustainability.

13. Key credit metrics (see appendix: Credit Metric Descriptions) should include a combination of liquidity and solvency metrics. Possible metrics to consider tracking include:

Liquidity metrics:

- Current ratio
- Quick ratio
- DSCR
- EBITDA-to-interest

Solvency metrics:

- Debt to equity
- Debt to capital
- Debt to EBITDA

14. While there are industry guidelines and loan covenant requirements for what are considered minimum levels to be maintained, every company is different and the greater the uncertainty in cash flows and earnings, the greater the need to maintain ratios above minimum levels (see Appendix Table C). GSE's Supervisory Board and risk management committee, with recommendations from the Board of Directors, need to consider appropriate credit metrics and take into account GSE's specific risk factors that may be more pronounced than typical in the industry, specifically FX exposure and regulatory uncertainty (tariff settings and change in methodology).

#### **E. Financing Strategy**

15. Maintaining financial sustainability requires the monitoring of all relevant credit metrics in investment planning and financial projections and pursuing a rational strategy in making investment and financing decisions by finance and treasury departments of GSE. The supervisory board, with recommendations from the Board of Directors, treasury and finance departments, needs to look at the investment and financing plans and assess the risk as a combined package to understand the complete risk and return potential. Investment decisions need to consider debt options available, cost of debt, riskiness of the form of debt (i.e. FX exposure, tenor) and the ability for GSE to borrow and maintain adequate credit ratios and capacity for repayment under different scenarios and assumptions by risk committee.
16. An important part of the decision-making process requires accurate and timely information and reporting between the treasury and accounting departments and that relevant reports are shared with the finance department, Board of Directors and Supervisory Board. Quarterly financial reports for the Supervisory Board and monthly reports for the Board of Directors shall be considered a minimum. Included in reporting should be details regarding (i) key credit metrics, specifically those highlighting covenant requirements, (ii) management accounts and performance summary; (iii) reporting on major events and changes affecting GSE business profile. Additionally, the treasury shall provide credit metric details as required by lenders but at a minimum quarterly frequency.
17. If there are significant changes in projections that may result in covenant breaches, lenders shall be notified immediately by the treasury department and underlying causes disclosed. If a waiver may be necessary, an official letter from GSE's treasurer shall be sent when the possibility of a breach is known.
18. Covenants are agreements by GSE either to take certain actions (positive covenants) or to refrain from certain actions (negative covenants). Positive covenants include items such as making required filings, complying with contractual and legal obligations, applying funding only for the purposes agreed in the loan agreement and maintaining minimum performance ratios (i.e. current ratio and DSCR). Negative covenants include amending the incorporation document, incurring additional debt, undertaking capital expenditure, providing guarantees or selling significant GSE assets without lender consent. Any covenant breach should be disclosed to lenders immediately. Additionally, if updated events result in changes in financial projections which will likely result in an eventual covenant breach, this information should also be disclosed in a timely fashion to lenders subject to the Supervisory Board advance review.

19. New covenants shall be negotiated by treasury and confirmed by Board of Directors. These new covenants will be recorded and tracked by the treasury group and included in financial reports prepared by the accounting department and shared with the finance department, Board of Directors and Supervisory Board.
20. The financing decisions of future investments, particularly the amounts of debt relative to equity, will partly be a function of ensuring that agreed upon credit ratios stay within acceptable levels. The key steps to consider when funding new investments include:
  - i. Estimating the amount of external financing required;
  - ii. Determining the breakdown between debt and new equity for the required external financing by taking into consideration the investment return potential, cost of available financing options and the overall risk;
  - iii. Optimizing the structure of the debt between cash generation of project and constraints of lenders.
21. Board of Directors recommendations to the Supervisory Board regarding investments will require financing assumptions in order to estimate risk and returns of a particular investment. The Supervisory Board shall consider the investment based on risk, return and taking into account the proposed financing option and modality specification. Major changes, as defined by the supervisory Board investment subcommittee guidelines, in financing assumptions will require the Supervisory Board to re-review investment decisions with relevant updated information as the cost of debt and the risk due to tenor, interest rates and FX exposure will need to be evaluated in all investment decisions.
22. Recommendations from the treasury and finance department on available financing options will optimize the structure in terms of tenor, grace period, payment schedule, project cashflows, underlying currency and interest expense. Ideally, the debt payments reflect the cash generation of a new project. Financial projections should be reviewed by the treasury department to ensure liquidity and solvency metrics are maintained.

## **F. Financing options**

23. Debt financing recommendations provided by the finance department and approved by the Supervisory Board will consider the maintenance of target credit ratios, ability to repay, cost of funds, FX exposure, alignment of debt repayments with project cash flows, current market conditions and the ability to access a given option.
24. One of the **strategic goals outlined in Part 7 of the MoF's Debt Management Strategy** is the reduction of external debt (and consequently FX risk), which has an explicit target of increasing the share of domestic debt from 18.7% in 2018 to at least 20% by 2021 and 35% in the long term. **This strategic goal is consistent with GSE's debt management strategy** to consider FX risk in all financing decisions and have domestic sovereign debt onlending through the MoF as a funding option for planned investments.
25. As current market conditions impact the viability of any financing option, it is important that GSE's treasury maintain regular consultation with international and local banks and brokerage firms to understand what options are possible at any given time. As these consultations can provide guidance regarding investor requirements (i.e. required credit

metrics, range of possible tenors and interest rates and other specific terms) they will serve as important feedback in considering the tradeoffs between credit metrics and financing options.

**Table 3. Financing Options**

<b>Equity Options</b>	<b>Description</b>	<b>Benefits</b>	<b>Considerations</b>
Internal funds	Retained earnings	Does not require external financing and avoids increasing leverage	May not be adequate to entirely fund planned investments
New equity	Equity injection from MoF or private investors	An equity injection will reduce leverage and improve solvency metrics	Dependent on willingness of MoF and/or private investors to consider an equity investment, which is riskier than debt, and transactions with private investors are highly dependent on market conditions
<b>Debt Options</b>			
Sovereign – USD or EUR	MoF onlending IFI USD or EUR denominated financing	Provides absolute lowest cost of debt in terms of interest rates	FX risk will increase uncertainty and volatility in earnings and cashflows
Sovereign – GEL	MoF onlending IFI loans denominated in GEL where IFIs issue local GEL debt and lend proceeds to MoF	Provides lowest cost of debt that eliminates FX risk	Higher interest expense than sovereign foreign denominated debt, depth of market may limit issuance size
Sovereign – GEL	MoF issuing domestic debt and onlending proceeds	Provides lower cost GEL debt than GSE can issue on its own	Depth and liquidity of local market may limit issuance size
GSE – GEL debt	GSE independent of MoF raises GEL debt in local market (either loans or bonds)	Allows independence from MoF and IFIs, no FX risk	Highest interest rate of all options, limited market size and depends on GSE's ability to access private investors without sovereign guarantee
GSE – EUR or USD debt	GSE independent of MoF raises USD or EUR debt	Allows independence from MoF and IFIs, lower interest expense than GSE GEL debt	Dependent of GSE's ability to access private investors without sovereign guarantee

## **G. Monitoring and Risk Mitigation**

26. The Board of Directors shall review all prospective borrowings to verify that terms and conditions are appropriate and optimal relative to other financing options. Adherence to the Strategy should be monitored on an ongoing basis. All new loans and contingent liabilities shall be authorized by GSE's Supervisory Board based on recommendations from the Company's Board of Directors. Compliance with covenants shall be calculated quarterly,

provided to the Supervisory Board and documented in the annual report. Additionally, GSE will submit on an annual basis covenant status independently verified by an external auditor.

27. Quarterly financial reports shall be submitted to the Supervisory Board. These reports should include the basic financial statements (balance sheet, income statement, statement of cash flows and key financial credit metrics as decided by the risk management committee). Loan covenant metrics should be highlighted and major changes in trends should be commented on. All loan covenant breaches and any significant financial issues that would negatively affect the Company's position should be reported to the Supervisory Board immediately. Waiver requests should be issued to the financial institutions immediately but no later than 10 days from the date of reporting the breach. If the reporting obligations based on agreements with a given financial institution suggest a shorter notice period, then the loan agreement should be adhered to.

## Appendices

### 28. GSE Financial Position

**Table A. GSE Financial Position (Consolidated)**

Presentation currency GEL'000										
	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
<b>Balance Sheet</b>	<b>GrTh</b>	<b>GrTh</b>	<b>KPMG</b>	<b>KPMG</b>	<b>KPMG</b>	<b>KPMG</b>	<b>KPMG</b>	<b>KPMG</b>	<b>KPMG</b>	<b>KPMG</b>
<b>Non-Current Assets</b>										
PPE	363,811	587,637	879,191	910,752	941,203	1,013,269	1,171,843	1,004,421	986,358	1,012,163
Prepayment For Non-Current	143,909	115,829	32,016	1,246	24,524	39,261	20,590	9,896	20,787	
Deffered Income Tax Assets	3,654	2,835	11,558	6,869	7,134	9,872				
Trade and Other receivables			55,217	38,671	35,692	24,078	14,796	7,458	6,140	6,575
<b>TOTAL Non-Current Assets</b>	<b>511,374</b>	<b>706,301</b>	<b>977,982</b>	<b>957,538</b>	<b>1,008,553</b>	<b>1,086,480</b>	<b>1,207,229</b>	<b>1,021,775</b>	<b>1,013,285</b>	<b>1,018,738</b>
<b>Current assets</b>										
Inventories	8,354	7,853	6,262	7,974	7,654	7,347	6,988	6,629	12,944	22,301
Trade and Other receivables	10,932	44,292	13,202	21,572	22,072	35,227	31,818	21,538	27,961	38,886
Prepeimnt to Suppliers			1,570	767	8,877	362	1,035	4,303	4,759	
Cash and cash equivalentents	39,833	89,764	25,343	35,419	31,235	15,081	25,275	47,295	71,016	101,153
<b>TOTAL Current Assets</b>	<b>59,119</b>	<b>141,909</b>	<b>46,377</b>	<b>65,732</b>	<b>69,838</b>	<b>58,017</b>	<b>65,116</b>	<b>79,765</b>	<b>116,680</b>	<b>162,340</b>
<b>TOTAL Assets</b>	<b>570,493</b>	<b>848,210</b>	<b>1,024,359</b>	<b>1,023,270</b>	<b>1,078,391</b>	<b>1,144,497</b>	<b>1,272,345</b>	<b>1,101,540</b>	<b>1,129,965</b>	<b>1,181,078</b>
<b>EQUITY AND LIABILITIES</b>										
<b>Equity</b>										
Share Capital	447,522	509,772	510,108	510,249	528,257	574,422	599,984	639,052	642,677	645,064
Unregistered Capital	9,829	27,311	27,194	27,457	45,913	6,259	11,259	11,259	11,259	2,992
Reserves	89,945	- 126	- 247	- 104	- 451	269	555	515	473	8,745
Retaining earnings	- 338,315	- 243,877	- 254,618	- 317,796	- 313,877	- 427,929	- 507,952	- 828,276	- 781,491	- 743,284
<b>TOTAL Equity</b>	<b>208,981</b>	<b>293,080</b>	<b>282,437</b>	<b>219,806</b>	<b>259,842</b>	<b>153,021</b>	<b>103,846</b>	<b>- 177,450</b>	<b>- 127,082</b>	<b>- 86,483</b>
<b>Non-Current lianillities</b>										
Non-Current portions of Loar	245,443	321,466	487,337	580,815	545,152	670,100	790,727	610,002	481,410	623,645
Restructured liabililities	55,725	59,207	58,370	59,167	59,636	59,455	56,417	47,875	36,874	23,113
Grants related to assets	23,910	28,787	72,183	71,060	80,057	104,298	108,533	107,797	104,414	102,736
Deffered Tax liabililities	1,372	1,372	2,297	1,793	1,739	3,266	1,618	1,165	1,165	1,145
<b>TOTAL Non-Current liabililities</b>	<b>326,450</b>	<b>410,832</b>	<b>620,187</b>	<b>712,835</b>	<b>686,584</b>	<b>837,119</b>	<b>957,295</b>	<b>766,839</b>	<b>623,863</b>	<b>750,639</b>
<b>Current Liabililities</b>										
Current portions of Loans&Bc	9,551	9,536	9,402	47,444	80,303	99,666	150,870	444,281	556,458	437,856
Current portion of Restructured liabililities				4,599	5,000	7,000	10,000	15,000	17,000	19,000
Grants related to assets			2,457	2,829	3,892	4,296	4,296	4,931	4,966	2,836
Trade and Other liabililities	22,998	128,286	109,876	35,757	42,770	43,395	46,038	47,939	54,760	56,596
Tax Payables	2,513	6,476								634
<b>TOTAL Current liabililities</b>	<b>35,062</b>	<b>144,298</b>	<b>121,735</b>	<b>90,629</b>	<b>131,965</b>	<b>154,357</b>	<b>211,204</b>	<b>512,151</b>	<b>633,184</b>	<b>516,922</b>
<b>TOTAL liabililities</b>	<b>361,512</b>	<b>555,130</b>	<b>741,922</b>	<b>803,464</b>	<b>818,549</b>	<b>991,476</b>	<b>1,168,499</b>	<b>1,278,990</b>	<b>1,257,047</b>	<b>1,267,561</b>
<b>TOTAL Equity and liabililities</b>	<b>570,493</b>	<b>848,210</b>	<b>1,024,359</b>	<b>1,023,270</b>	<b>1,078,391</b>	<b>1,144,497</b>	<b>1,272,345</b>	<b>1,101,540</b>	<b>1,129,965</b>	<b>1,181,078</b>

## 29.GSE Consolidated Repayment Schedule

**Table B. GSE Debt Repayment Schedule**

	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total
<b>GEL Equivalent 000</b>												
ET	44,196	44,561	44,926	45,291	45,657	46,022	46,387	46,752	47,118	47,483	47,848	834,556
EBRD Black Sea	10,820	17,015	17,649	18,472	19,186	19,924	-	32,178	-	-	-	135,246
Principal	10,178	16,464	17,206	17,982	18,793	19,641	-	32,178	-	-	-	132,443
Interest	642	552	443	490	393	283	-	-	-	-	-	2,803
EIB Black Sea T	12,328	18,217	18,965	19,837	20,654	21,500	22,383	23,302	48,048	25,155	21,761	252,150
Principal	11,560	17,486	18,274	19,099	19,960	20,860	21,801	22,784	47,623	24,885	21,582	245,914
Interest	768	731	691	738	694	640	583	518	425	269	178	6,236
KfW Black Sea	13,640	49,310	42,425	49,205	49,142	48,974	61,802	33,797	-	-	-	348,295
Principal	-	35,055	29,976	38,288	40,015	41,820	56,817	31,974	-	-	-	273,944
Interest	13,640	14,255	12,449	10,917	9,127	7,154	4,985	1,823	-	-	-	74,350
MOF Black Sea	11,513	1,516	1,585	-	-	-	-	-	-	28,045	-	42,659
Principal	10,063	-	-	-	-	-	-	-	-	28,045	-	38,108
Interest	1,451	1,516	1,585	-	-	-	-	-	-	-	-	4,551
Not Specified Ov	4,323	6,203	(989)	620	-	-	-	807	37,961	7,282	-	56,206
Principal	4,323	6,203	(989)	620	-	-	-	807	37,961	7,282	-	56,206
<b>GSE</b>	34,776	45,493	67,420	76,665	125,791	140,859	136,122	140,756	144,164	138,206	141,378	1,191,631
ADB Regional Pc	1,305	7,044	7,303	7,570	7,846	8,132	8,428	8,734	9,051	9,378	9,717	84,509
Principal	-	5,681	5,937	6,205	6,485	6,777	7,083	7,402	7,736	8,085	8,449	69,839
Interest	1,305	1,363	1,366	1,365	1,362	1,355	1,346	1,332	1,315	1,294	1,267	14,670
EBRD Jvari Khor	7,175	7,398	7,627	7,862	8,102	8,348	8,599	8,856	9,119	-	-	73,086
Principal	6,312	6,596	6,894	7,205	7,530	7,869	8,224	8,595	8,983	-	-	68,206
Interest	863	802	733	657	572	478	375	261	137	-	-	4,880
IDA Energy Mar	8,689	8,481	4,197	-	-	-	-	-	-	-	-	21,367
Principal	7,397	7,731	4,040	-	-	-	-	-	-	-	-	19,168
Interest	1,292	750	157	-	-	-	-	-	-	-	-	2,198
kfW Open Progr	7	7	4,937	-	-	-	-	-	-	-	-	4,951
Principal	-	-	4,929	-	-	-	-	-	-	-	-	4,929
Interest	7	7	8	-	-	-	-	-	-	-	-	22
kfW Regional Pc	2,429	2,504	2,580	2,658	2,738	2,819	-	-	-	-	-	15,727
Principal	2,236	2,337	2,442	2,553	2,668	2,788	-	-	-	-	-	15,024
Interest	193	167	137	105	70	31	-	-	-	-	-	703
kfW Sector Prog	8,972	9,176	9,381	9,585	9,789	9,991	-	-	-	-	-	56,894
Principal	7,822	8,175	8,544	8,929	9,331	9,752	-	-	-	-	-	52,553
Interest	1,150	1,001	837	656	457	239	-	-	-	-	-	4,341
kfW Transmissio	997	1,032	1,067	1,104	1,141	1,180	1,220	1,261	1,303	1,347	1,392	13,044
Principal	816	853	892	932	974	1,018	1,064	1,112	1,162	1,214	1,269	11,305
Interest	181	179	176	172	167	162	156	149	142	133	123	1,740
kfW Transmissio	2,699	2,712	-	-	-	-	-	-	-	-	-	5,411
Principal	2,522	2,633	-	-	-	-	-	-	-	-	-	5,156
Interest	176	79	-	-	-	-	-	-	-	-	-	255
NEW Loans New	1,343	5,926	29,062	46,563	87,767	94,352	101,242	104,654	106,803	108,932	111,036	797,679
Principal	-	-	14,739	23,335	64,070	70,444	77,263	82,017	85,715	89,581	93,621	600,784
Interest	1,343	5,926	14,323	23,229	23,697	23,907	23,979	22,638	21,087	19,351	17,415	196,895
WB Transmissio	1,160	1,212	1,267	1,324	8,408	16,037	16,633	17,250	17,888	18,550	19,234	118,962
Principal	-	-	-	-	7,024	14,683	15,345	16,037	16,760	17,516	18,306	105,670
Interest	1,160	1,212	1,267	1,324	1,384	1,355	1,288	1,213	1,128	1,034	928	13,292
<b>Total</b>	<b>87,399</b>	<b>137,754</b>	<b>147,055</b>	<b>164,799</b>	<b>214,773</b>	<b>231,258</b>	<b>220,307</b>	<b>230,840</b>	<b>230,172</b>	<b>198,689</b>	<b>163,139</b>	<b>2,026,187</b>

## 30. GSE Debt Service

**Table C. GSE debt service by loan status**

	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total Debt Service
<b>Existing Loans</b>	<b>86,057</b>	<b>131,829</b>	<b>117,993</b>	<b>118,236</b>	<b>127,006</b>	<b>136,906</b>	<b>119,065</b>	<b>126,186</b>	<b>123,370</b>	<b>89,757</b>	<b>52,103</b>	<b>1,228,507</b>
Principal	63,230	109,215	98,144	101,811	112,780	125,207	110,333	120,888	120,224	87,027	49,606	1,098,466
Interest	22,827	22,614	19,848	16,424	14,226	11,699	8,732	5,298	3,146	2,730	2,497	130,041
<b>New Loans</b>	<b>1,343</b>	<b>5,926</b>	<b>29,062</b>	<b>46,563</b>	<b>87,767</b>	<b>94,352</b>	<b>101,242</b>	<b>104,654</b>	<b>106,803</b>	<b>108,932</b>	<b>111,036</b>	<b>797,679</b>
Principal	-	-	14,739	23,335	64,070	70,444	77,263	82,017	85,715	89,581	93,621	600,784
Interest	1,343	5,926	14,323	23,229	23,697	23,907	23,979	22,638	21,087	19,351	17,415	196,895
<b>Total Debt Service</b>	<b>87,399</b>	<b>137,754</b>	<b>147,055</b>	<b>164,799</b>	<b>214,773</b>	<b>231,258</b>	<b>220,307</b>	<b>230,840</b>	<b>230,172</b>	<b>198,689</b>	<b>163,139</b>	<b>2,026,187</b>

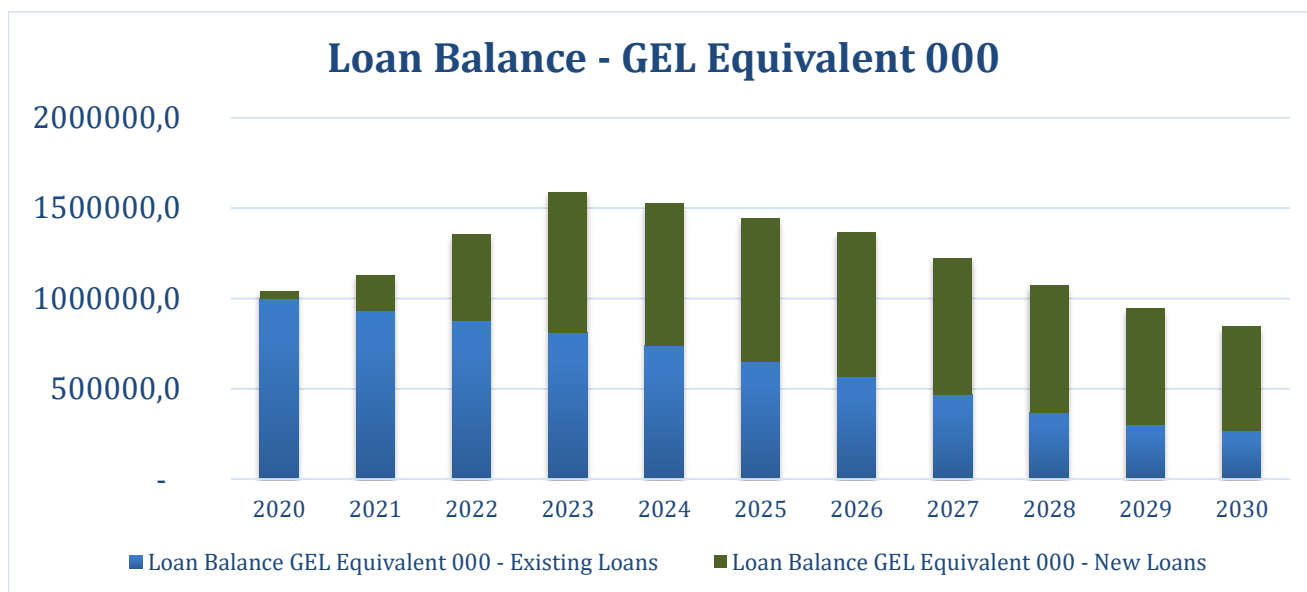
Graph A. GSE Debt Service



i. GSE Loan Balance

	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
<b>Loan Balance GEL Equivalent 000</b>											
Existing Loans	996,670	932,403	876,308	814,016	737,947	646,020	564,821	469,405	370,351	300,025	263,950
New Loans	44,764	197,520	477,450	774,295	789,913	796,912	799,293	754,592	702,908	645,026	580,495
<b>Total</b>	<b>1,041,434</b>	<b>1,129,922</b>	<b>1,353,758</b>	<b>1,588,312</b>	<b>1,527,860</b>	<b>1,442,932</b>	<b>1,364,114</b>	<b>1,223,997</b>	<b>1,073,258</b>	<b>945,052</b>	<b>844,445</b>

Graph B. GSE loan balance



ii. Financial loan covenants

Table C. Current Loan Covenants

Lender	Loan Signing Date	Covenants
EIB	2010	GSE DSCR > 1.1
EBRD	2010	Energotrans DSCR > 1.1
EBRD	2013	Total Net Debt to EBITDA < 4.5
EBRD	2013	EBITDA to interest Expense > 3.5
EBRD	Not signed	Maintain Net Debt/EBITDA below 4.5x from 1 January 2024
EBRD	Not signed	Maintain a minimum Debt Service Coverage Ratio of at least 1.1x from 1 January 2021

iii. Credit metric descriptions

**Current Ratio**

The current ratio measures a firm's ability to pay off its short-term liabilities with its current assets. The current ratio is an important measure of liquidity because short-term liabilities are due within the following year, meaning that a company has a limited

amount of time in order to raise the funds to pay for these liabilities. A higher current ratio is always more favorable than a lower current ratio; a current ratio less than 1.0 indicates that liabilities coming due exceed current assets, which may warn of potential difficulties in making payments.

**Current Ratio = current assets/current liabilities**

### **Quick Ratio**

The quick ratio measures the liquidity of a company, namely its ability to pay current liabilities when they are due with current assets that can be converted into cash. The quick ratio is more conservative than the current ratio because it excludes inventory and other current assets that are generally more difficult to turn into cash. A higher quick ratio means a more liquid current position.

**Quick ratio = (cash + short term investment + current receivables)/current liabilities**

### **Debt Service Coverage Ratio**

The debt service coverage ratio (DSCR) is the ratio of cash flow available to pay current debt obligations (i.e. interest and principal payments). DSCR measures whether the cash being generated by the company is adequate to cover expected debt payments due during a given year. A ratio less than 1.0 indicates that some sort of financing may be required to make up the shortfall. This ratio should remain above 1.0 for long-term financial sustainability.

**DSCR = Cash from operations/debt service**

### **EBITDA to Interest Expense Ratio**

The EBITDA-to-interest expense ratio is used to assess if a company is profitable enough to make its interest payments. A ratio greater than 1 indicates that profitability is likely adequate to cover interest payments.

**EBITDA to interest coverage = EBITDA/interest expense**

### **Debt to Equity Ratio**

The debt-to-equity ratio (D/E) is a financial metric indicating the relative proportion of shareholders' equity and debt used to finance a company's assets. A high debt/equity ratio is often associated with high risk, indicating that a company may have been aggressive in financing its growth

with debt. Typical industry standard suggests a minimum D/E of 3:1.

**Debt to Equity ratio = Net Debt/Equity**

### **Debt to Capital Ratio**

A company's debt to capital ratio (D/C) is its total debt to its total capital (debt and equity combined). The ratio measures a company's capital structure, financial solvency and degree of leverage at a particular point in time.

**Debt to Capital ratio = Net Debt/(Equity + Debt)**

### **Debt to EBITDA Ratio**

The net debt to EBITDA ratio is a debt metric that shows how many years it would take for a company to pay back its debt if net debt and EBITDA are held constant. The net debt to EBITDA ratio is popular with lenders because it takes into account a company's ability to decrease its debt. The net debt to EBITDA ratio shall be compared to that of a benchmark or the industry average to determine the creditworthiness of a company. Additionally, the ratio for the current period can be compared to those of previous periods to determine whether a company has increased or decreased its debt burden over a specified timeframe.

**Debt to EBITDA ratio = Net Debt/EBITDA**