PROGRAM ECONOMIC ASSESSMENT

1. This document describes the economic context of the Asian Development Bank (ADB) for the Proposed Policy Based Loan to Georgia on *Electricity Transmission Sector Reforms Program*. The policy loan of $100 million reflects Georgia's development financing needs, the breadth of the policy reform package, the expected development impact, and program implementation costs, with reference to specific development expenditures supported by counterpart funds of the loan. In the midst of a COVID-19 recovery, the program takes on a heightened importance.

A. Project Rationale and Objectives

2. Georgia has made significant progress in reforming the electricity sector from state monopoly to liberalized market structure. However key structural, financial and governance barriers remain, especially as they relate to Georgian State Electrosystem (GSE) and Energotrans. The program addresses these barriers through three primary objectives: (i) create structural changes that will improve operational and network efficiency, (ii) corporatize GSE using a modern governance model, and (iii) bring financial sustainability for GSE. These reforms will be vital to a healthy energy sector, which will play a key role in Georgia's COVID-19 economic recovery.

3. Poor corporate governance of GSE, and related inefficiencies, are negatively impacting sector growth. An inadequate management structure contributes to poor investment decisions, network inefficiencies and low trade volumes that limit revenues. The current structure also includes unsustainable government financial support. Since 2010 GSE Consolidated has received GEL276 million in equity contributions from the Ministry of Finance (MOF). Finally, the current governance structure has resulted in inadequate management, which threatens system performance. Specifically, GSE has been shielded from corporate and investment discipline under the current Rehabilitation Plan (2008).[1] The arrangements under the plan are not functioning, either according to plan, or best practices. The weak structure has directly contributed to GSE's financial distress with EnergoTrans and puts GSE at higher risk for eroding performance and compliance.

4. The proposed policies directly address these constraints. The corporate governance plan for GSE will ringfence the entity, end the current rehabilitation arrangement, and create an accountable, transparent and independent enterprise. The corporate governance of the program will terminate the GSE insolvency proceedings and merge EnergoTrans with GSE. Further, it will establish a supervisory board of independent non-ministerial directors, with separate committees for audit, compensation, nomination, investment, and risk management. Perhaps most importantly, it adopts a rigorous stakeholder review process for infrastructure investment decisions, rationalized with GSE's financial sustainability and risks.

5. The program will help meet important national objectives including COVID-19 recovery. The program is expected to: enhance system efficiencies; increase trade volumes; eliminate the need for further government support; and expand funding sources for sector investment to ensure a reliable and growing energy supply. The cumulative effect of these initiatives is to create GSE as a fully independent and sustainable transmission company, and to continue national progress toward a secure, transparent and competitive electricity market. The initiatives will also aid the nation in reducing external debt; as of December 2020, MOF on-lending balances to GSE

[1] ADB. 2018. "Concept Paper: Proposed Policy-Based Loan and Administration of Technical Assistance Grant Georgia: Georgian State Electrosystem Corporatization and Electricity Market Reforms Program."

Consolidated were 1,186 million[2] representing 2.4% of 2020 GDP. These objectives are foundational to both the national energy plan,[3] and debt management strategy.[4] The reforms will also assist the nation in its COVID-19 recovery. Enhanced international trade in electricity will improve trade balances and foster regional growth. Removing the fiscal obligation of government support for GSE will free up public money for direct COVID-19 recovery needs. Finally, expanding funding sources for sector investment will ensure a reliable and growing energy supply, a crucial element for long-term economic recovery.

B. Macroeconomic Overview

6. Georgia's economic outlook had been positive, with steady annual growth averaging 4.7% during the decade leading up to 2019.[5] Also in 2019, Georgia achieved its lowest fiscal deficit in 10 years (2.2% of GDP), a historically low current account deficit (5.1% of GDP), its lowest unemployment rate (11.6%), and its lowest rate of poverty (still high at 20.1%, but nearly halved compared with 2007). The public debt-to-GDP ratio was 44.5%, well below the 60% ceiling, with expenditure as a share of GDP at 28.3%. In 2019, the lari depreciated by 8.9% against the United States dollar, continuing a long trend, before losing additional ground in 2020.[6]

7. However, the economy contracted by 6.2% in 2020 as restrictions on movement and economic activity took a toll. Many sectors of the economy were affected, but the tourism industry was particularly hard hit as international arrivals fell by over 80% and revenues by 90%.[7] The unemployment rate reached 20.4% in the fourth quarter of 2020, rising sharply from 2019, when it was at 12%. Poverty is estimated to have risen by 5.4 percentage points, to 24.9% in 2020, from 19.5% in 2019 as the government's support package likely prevented an even greater increase.[8] Government tax revenue fell from 24.1% of GDP in 2019 to 22.2% in 2020. Currency depreciation, steady for almost a decade, continued as the lari depreciated by 5.6%.[9] The 2020 current account deficit widened significantly to 12.3% of GDP, 7.2% higher than in 2019. Inflation accelerated to 3.6 percent (y/y) by February 2021, exceeding the national target of 3.0%.[10] Finally, FDI deteriorated in 2020, from 5.6% of GDP to 3.7% (footnote 9).

8. Georgia's fiscal policy response to the pandemic has been robust. In 2020 tax relief amounted to GEL362 million (0.7% of GDP), fiscal expenditures totaled GEL1,504 million (3% GDP)[11], and capital spending was GEL73 million (0.1% GDP). Due to declining revenues, and increasing expenses, the government deficit reached 9.3% of GDP, but remained below the IMF ceiling of 10.1%. Budgetary response to COVID-19 continues in 2021 with an additional GEL1,247 million (2.3% GDP) assistance package (footnote 9). Recent ADB analysis indicates that the fiscal deficit will narrow in 2021 but remain high at 7.5% of GDP.[12] The public debt-to-

---

[2] Ministry of Finance of Georgia. "On-lendings from External Financial Resources in Credit Currency (as of December 31, 2018)." www.mof.ge/images/File/sagareo-dafinanseba/Onl(web)-eng%20-ziritadi-2018-dec-31-N-pdf.pdf. 2019.
[3] Ministry of Energy of Georgia. Main Directions of the State Policy in Energy Sector of Georgia. http://www.energy.gov.ge/ministry.php?id_pages=12&lang=eng. 2018.
[4] Ministry of Finance Georgia. "Debt Management Strategy." 2019.
[5] Ministry of Finance, Georgia. 2020. Economic Indicators. Available at https://mof.ge/en/4553 (accessed 11 May 2020).
[6] ADB. 2019. Asian Development Outlook 2019: Strengthening Disaster Resilience. Manila. Local currency declined an additional 20.0% against the dollar in March 2020.
[7] ADB. 2021. *Asian Development Outlook 2021: Financing a Green and Inclusive Recovery*. Manila. P 168.
[8] World Bank. 2021. "The World Bank in Georgia. Available at: https://www.worldbank.org/en/country/georgia/overview#3.
[9] IMF. 2021. "Georgia: Eighth review under the extended fund facility arrangement." .
[10] ADB. 2019. *Asian Development Outlook 2019: Strengthening Disaster Resilience.* Manila. p 153.
[11] A portion of these expenditures were subsidies for utility bills, which covered subscribers who consumed less than 200 kWh of electricity and 200 m^3 of natural gas per month.
[12] ADB. 2021. "Asian Development Outlook 2021." P 169.

GDP ratio is projected to peak at 61% percent of GDP in 2021 before falling back to Georgia's legal ceiling of 60% of GDP by 2023 (footnote 9).

9. Due in part to Georgia's response, the economy is expected to rebound in 2021. Growth is expected to turn positive with an increase in GDP of 3.5% in 2021, and a further increase of 5.8% in 2022. The tourism sector should experience a gradual recovery, growing by 56% from its low 2019 level (footnote 9). Tax revenue is also expected to grow to 22.6% of GDP in 2021, a modest 2% growth rate (footnote 9). The current account deficit is expected to narrow to 10.9% of GDP in 2021 and then to 5.7% by 2026. Inflation is expected to increase further reflecting higher input costs, energy prices and exchange rate depreciation pass-through. Finally, FDI is expected to begin a gradual recovery increasing from 3.7% of GDP to 4.5% in 2021 and then 4.8% in 2022 (footnote 9).

10. Having navigated a second wave of COVID-19, and commenced vaccinations, Georgia may be at a turning point in overcoming the worst of the pandemic's consequences with daily COVID-19 falling from peak levels. Georgia's robust policy response to the pandemic likely prevented worse affects and rightly focused on the most vulnerable. At the same time, the government's increased spending casts a light on structural weaknesses. Financially, a disorderly depreciation of the lari may threaten financial stability. Fiscally, the high degree of exposure to foreign exchange risk (due to the large amount of loans denominated in hard currency) could put pressure on the deficit.[13] This exposure includes contingent liabilities from loans to GSE and other SOEs, expected to reach 54.3% of GDP by the end of 2021 before falling to 49.6% in 2022 (footnote 9).

C. The Energy Sector in Georgia

11. The energy industry was directly impacted by COVID-19 and the global response. Energy consumption has shifted with increases experienced in the residential sector and decreases in non-residential demand. The net effect was a 4.9% reduction in consumption for 2020, followed by an increase of 3.1% y/y during the first quarter of 2021. Importantly, at the end of Q1 in March 2021, consumption had risen by 16% y/y indicating a robust recovery in demand. In terms of international trade in electricity, Georgia remained a net importer in 2020 with a trade deficit of $58.7 in terms of value (a drop of 16.8%), and 1.4TWh in terms of volume (an increase of 5.3%).[14]

12. The Georgian government is committed to the growth of the energy sector as demonstrated by recent reforms, and investments in the industry. Industry reforms include the successful transformation of the sector from a state monopoly to a liberalized market, with most sector entities operating as private companies. Some notable exceptions are GSE, the two largest hydropower plants, Enguri and Vardnili, and the market operator, ESCO.

13. In 2012, the Ministry of Energy of Georgia (MOE) approved the Georgian Electricity Market Model 2015 (GEMM 2015) and Electricity Trading Mechanism (ETM) as core strategies. The primary objective at the time was to attract private sector investment to develop the nation's wealth of hydropower resources by "providing transmission paths, trading tools and risk mitigation options to sell electricity in the Turkish and other regional electricity markets."[15] It was hoped that new investments would improve Georgia's energy trade balance by reducing dependency on fuel imports, while simultaneously increasing electricity exports. Under the framework of GEMM 2015

[13] World Bank. "Georgia Economy," 2019. www.worldbank.org/en/country/georgia/overview#3.
[14] Galt and Taggart. 2020. Georgia's Energy Sector Electricity Market Watch. 21 May 2021.
[15] USAID. Georgian Electricity Market Model. Electricity Trading Mechanism (Draft) – USAID Hydropower Investment Promotion Project. 2015. p 18.

and ETM, various market and regulatory reforms were undertaken to harmonize electricity market legislation with that of Turkey and South-East European countries and to “enable competitive electricity cross-border trading by establishing a legal framework and commercial conditions necessary for the development of a transparent and non-discriminatory electricity market.”[16] Unfortunately, not all hoped-for trading has been realized. Inexpensive natural gas has depressed electricity prices in neighboring markets, though opportunities remain.

14. The energy reform agenda was strengthened by signing the European Energy Community Treaty in 2016, but work remains. Georgia’s Association Agreement with the European Union in 2014 regulates its opening to the European electricity and gas markets.[17] Reforms under this regime include establishing an independent regulator of the sector, unbundling and privatizing of generation and distribution assets, and introducing long-term concessions and guaranteed power purchase agreements (PPAs). These reforms are underway, and the government is committed to continuing. However, Georgia’s existing legal frameworks do not sufficiently align with EU rules, and draft legislation is still under discussion. Furthermore, a recent EU Energy Community Secretariat report on Georgia’s progress in regulatory compliance, gave the nation an overall score of only 23%, indicating there is significant progress to be made in transposing the EU rules into Georgian legislation.[18]

15. Despite the government’s commitment, there are several long-term constraints on the sector; removing these constraints will ensure long-term public service delivery and aid in the COVID-19 recovery. One, operational and network inefficiency reduces the ability to adequately manage and maintain system assets, resulting in insufficient trade volumes. The absence of increased revenues from regional trade distorts GSE’s sustainability, negatively impacting its capital structure and liquidity gap.[19] Two, a lack of financial sustainability limits the availability of capital. The constraint is illustrated by GSE’s need to raise funds exclusively from the government and IFIs. Three, inadequate corporate management results in overall poor performance and investment decisions. These threaten long-term service delivery. The program objectives are also aligned with Georgia’s COVID-19 recovery. A reliable electricity supply is necessary to restore damaged industries and accelerate growth as the country rebuilds its economy. Cross-border trade can be a key part of enhancing the balance of payments from a national income standpoint. Finally, pressure on the fiscal budget in the face of the pandemic has increased; the reforms from the program will remove some of this pressure as GSE will be self-sufficient.

D. Transmission Mechanism

16. The transmission mechanism for the policy proposal centers on creating an independent and financially viable GSE, which will drive several outcomes designed to overcome sector constraints. Foremost, a financially strong GSE is required to expand network capacity, and open new investment possibilities in power generation. Implementing the governance recommendations will ringfence the corporation and put in place a rigorous process for budgeting

[16] USAID. Georgian Electricity Market Model. Electricity Trading Mechanism (Draft) – USAID Hydropower Investment Promotion Project. 2015. p 18.

[17] Official Journal of the European Union. “Association Agreement between the European Union and the European Atomic Energy Community and their Member States, of the one part, and Georgia, of the other part.” L261/4, Volume 57, 30 August 2014.

[18] Georgia presents a complicated case when it comes to adopting EU rules; it does not share physical borders with the EU and is tightly integrated with its neighboring countries. It must take into consideration the effect of increased transparency and regulation on existing energy contracts and trading relations with neighboring countries that are not members of the Energy Community. As a result, new primary legislation is still under discussion at the Ministry level.

[19] ADB. 2018. “Concept Paper: Proposed Policy-Based Loan and Administration of Technical Assistance Grant Georgia: Georgian State Electrosystem Corporatization and Electricity Market Reforms Program.”

and investment. Investment decisions will be vetted by the investment committee, with full transparency to shareholders. This disciplined investment process will, over time, attract new capital, allowing grid expansion to occur more quickly, maximizing Georgia's position as a regional energy hub. A financially strong and independent GSE will also attract other sector investors. As transmission grid capacity grows, investors in electricity supply are expected to respond to opportunities for cross-border trading and meeting domestic market demand. Without the policy interventions, a business as usual scenario prevails, and GSE remains on a slow growth pathway and constrained to a very limited capital market.

E. Overall Approach and Methodology

17. The economic analysis compares economic outcomes with program implementation to outcomes "without" implementation. The analysis was carried out in accordance with the *Financial Management and Analysis of Projects* (2005),[20]*Economic Analysis of Sub Regional Projects* (1999)[21] and *Guidance Note for the Economic Assessment of Policy-Based Lending* (2020)[22] of the Asian Development Bank (ADB).

F. Economic Benefits

18. The proposed interventions are expected to lead to an improvement in operational and network efficiency which combined with improved governance and better financial management will result in attracting new investments, allowing grid expansion and more reliable electricity supply. The economic benefits mainly emanate from energy consumption. When electricity is made available to existing and new consumers, it will bring incremental as well as non-incremental benefits. Incremental benefits arise from additional consumption of electricity by both existing consumer and new consumers connected to the national grid, while non-incremental benefits emanate from replacing current sources of energy with the more efficient and reliable sources of energy. The reforms will also help enhance the fiscal space thereby allowing the government to better allocate resources for productive investments. For example, based on conservative scenario, the program's implementation may result in budgetary headroom over 10 years of GEL276 million or 0.6% of 2020 GDP, enabling the government to invest in critical areas including COVID-19 economic recovery in accordance with the national debt management strategy.[23] This will have a significant and positive impact on economic growth and employment.

G. Effects of Reforms

19. The proposed program will result in strengthening the transmission sector structure and institutional environment of Georgia's electricity transmission company and enhance sector efficiency and improve its financial performance. Overall, the economic benefits from different interventions will eventually contribute to building an affordable, reliable, and sustainable energy system in Georgia by enhancing energy transmission and supply capacity, and improving operational efficiency and transparency; a sustainable energy sector will in turn support the economic recovery and growth in the medium to long-run.

---

[20] ADB. Financial Management and Analysis of Projects. Manila, 2005.
[21] ADB. Economic Analysis of Subregional Projects. Manila, 1999.
[22] ADB. 2020. Guidance Note for the Economic Assessment of Policy-Based Lending.
[23] Figure based on the avoidance of historically-averaged subsidies over 10 years. Benefits may be higher: a fiscal analysis shows that government contributions may include the equity portion of capital investments (valued at GEL395 million plus the difference in cash flow from operations if ET is allowed to change its rated asset base from 17.53% to 100% (valued at GEL280 million). See also, Ministry of Finance Georgia. 2019. "Debt Management Strategy."