ADB

Concept Paper

Project Number: 49006-003
July 2018

Proposed Policy-Based Loan and Administration of Technical Assistance Grant
Georgia: Georgian State Electrosystem Corporatization and Electricity Market Reforms Program

Asian Development Bank

CURRENCY EQUIVALENTS
(as of 29 May 2018)

Currency unit	–	lari (GEL)
GEL1.00	=	$0.404858
$1.00	=	GEL2.47

ABBREVIATIONS

ADB	–	Asian Development Bank
EEC	–	European Energy Community
EU	–	European Union
FDI	–	foreign direct investment
GDP	–	gross domestic product
GSE	–	Georgian State Electrosystem
HPP	–	hydropower plant project
IMF	–	International Monetary Fund
MOESD	–	Ministry of Economic and Sustainable Development
PPA	–	power purchase agreement
TA	–	technical assistance
TWh	–	terawatt-hour

NOTE

In this report, "$" refers to United States dollars.

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PROGRAM AT A GLANCE

1.	**Basic Data**			**Project Number:** 49006-003
	Project Name	Georgian State Electrosystem Corporatization and Electricity Market Reforms Program	**Department/Division**	CWRD/CWEN
	Country	Georgia	**Executing Agency**	Ministry of Finance
	Borrower	Government of Georgia		

2.	**Sector**	**Subsector(s)**	**ADB Financing ($ million)**
✓	**Energy**	Energy sector development and institutional reform	50.00
		Total	**50.00**

3.	**Strategic Agenda**	**Subcomponents**	**Climate Change Information**	
	Inclusive economic growth (IEG)	Pillar 1: Economic opportunities, including jobs, created and expanded	Climate Change impact on the Project	Low
	Regional integration (RCI)	Pillar 1: Cross-border infrastructure		

4.	**Drivers of Change**	**Components**	**Gender Equity and Mainstreaming**	
	Governance and capacity development (GCD)	Institutional development Organizational development Public financial governance	No gender elements (NGE)	✓
	Private sector development (PSD)	Conducive policy and institutional environment		

5.	**Poverty and SDG Targeting**		**Location Impact**	
	Geographic Targeting	No	Nation-wide	High
	Household Targeting	No		
	SDG Targeting	Yes		
	SDG Goals	SDG7, SDG8		

6. Risk Categorization: Low

7. Safeguard Categorization **Environment:** B **Involuntary Resettlement:** C **Indigenous Peoples:** C

8. Financing

Modality and Sources	**Amount ($ million)**
ADB	**50.00**
Sovereign Stand-Alone Policy-Based Lending (Regular Loan): Ordinary capital resources	50.00
Cofinancing	**0.00**
None	0.00
Counterpart	**0.00**
None	0.00
Total	**50.00**

I. THE PROPOSAL

1. The proposed Georgian State Electrosystem Corporatization and Electricity Market Reforms program aims to strengthen the corporate governance and financial management of Georgia's electricity transmission company, Georgia State Electrosystem (GSE), and improve electricity market competition by supporting an independent market operator. These reforms are critical to strengthen GSE's corporate governance, financial management, transparency, and debt sustainability; and to improve electricity market competition. The proposed policy-based loan will be implemented during 2018–2019. Transaction technical assistance (TA) will facilitate program implementation, including providing technical advice to and building the capacity of the Ministry of Economy and Sustainable Development (MOESD).[1] The proposed program is in line with the Asian Development Bank (ADB) country partnership strategy for Georgia, 2014–2018.[2]

II. PROGRAM AND RATIONALE

A. Background and Development Constraints

2. Georgia is one of the top ten countries globally in terms of water resources per capita. The country's hydropower resources are estimated at 15,000 megawatts, with annual generation of about 80 terawatt-hours (TWh). Currently only about 22% of the hydropower potential has been harnessed. Between 2008–2017, Georgia's gross domestic product (GDP) has grown at an average annual rate of 5%, mostly because of the supportive environment for businesses, liberalized foreign trade, and increasing foreign direct investment (FDI). FDI is estimated at 15% of GDP and concentrated in construction and services. Projections indicate that mobilizing FDI in hydropower generation could increase annual generation from the current 11 TWh to 24.8 TWh in 2026, making an additional 9.0 TWh of capacity available for export, with an economic value of $700 million to $1,200 million (about 7%–10% of GDP).

3. Georgia presently has no overall supply shortage, with HPPs contributing about 80%–90% of total power generation. However, the country is highly dependent on imported energy—which accounts for about 60% of energy use—to meet seasonal demand. Georgia's power consumption peaks in the winter, when hydropower generation is lowest. In winter, Georgia relies on imported electricity and domestic thermal generation using imported natural gas; power from these sources provides 40% of the winter electricity supply, while in summer surplus power from HPPs is exported. Without balanced regional trade and HPP investments power supply security will further diminish: Georgia's economy is growing steadily at a projected 4.5% annual rate, while electricity consumption is increasing at 7% per year, with an estimated winter deficit peak of 20%.

4. Georgia is naturally positioned as a regional power hub, with an advanced electricity grid and interconnections with Armenia, Azerbaijan, Russia, and Turkey. Government policies to restructure the electricity sector coupled with public investment to repair dilapidated transmission infrastructure have transformed a power sector on the verge of collapse to one of the most technologically advanced grids; electricity losses have declined from 15% in 2000 to less than 2% in 2017.[3] Georgia has significantly expanded its regional interconnection infrastructure, and

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[1] The lending proposal is included in ADB. 2017. *Country Operations Business Plan: Georgia, 2018–2020.* Manila. The project name was changed through a departmental review meeting discussion and reflects the government's preference of showing the linkage with the International Monetary Fund program. An initial draft of the design and monitoring framework is in Appendix 1. The TA comprises Technical Assistance for Program Preparation (accessible from the list of linked documents in Appendix 2).

[2] ADB. 2014. *Country Partnership Strategy: Georgia, 2014–2018.* Manila.

[3] Government of Georgia. 2016. *GSE Ten Year Network Development Plan, 2017–2027*. Tbilisi.

transit and cross-border trade capacity has increased by over 80% to about 3 gigawatts. This capacity is expected to double by 2021, but the actual regional power trade remains very seasonal, and uses less than 10% of available transit and cross border trade capacity.

5. **Government's reform agenda and sector structure**. Georgia's electricity sector has successfully transformed from a state monopoly to a liberalized market. Most sector entities are privately owned, except for GSE, the Enguri and Vardnili hydropower plants, and the electricity market operator.[4] Georgia signed an Association Agreement with the European Union (EU) in June 2014, undertaking an obligation to become a member of the European Energy Community through continuous reforms and legal approximation with the third energy package adopted by the EU member states.[5] Reforms have commenced with technical support from the EU energy community, and the government is committed to continuing the reforms. Reforms include the establishment of an independent energy sector regulator, unbundling and privatization of power generation and distribution assets, and introduction of long-term concessions and guaranteed power purchase agreements (PPAs) for private investments in HPPs. While PPAs have been instrumental for hedging major risks of HPP developers in Georgia, the cumulative total of PPAs executed is highlighted by the International Monetary Fund (IMF) as a key source of the country's fiscal risk. The contingent liabilities of PPAs (estimated at about 8% of GDP) are a key sector challenge that impose risks to liquidity and the need to increase end-user tariffs by 2023–2024. To manage the contingent fiscal risks and sector sustainability, the government approved Public–Private Partnership (P3) legislation in 2018, and is making major efforts to improve GSE's financial performance and its corporatization before the end of the rehabilitation plan in 2023.

6. **Inadequate management structure and insufficient trade volumes**. GSE (transmission system operator and Despatcher) owns 75% of the high-voltage transmission lines. Since 2008, GSE has operated under a 15-year bankruptcy recovery (financial rehabilitation) plan approved by the Ministry of Finance. Prior to 2008, GSE was unable to pay its liabilities because of low tariffs and collection rates, and accumulated debts resulting from poor management. The rehabilitation plan has targets for GSE's debt repayment and the level of government support for the financing of transmission rehabilitation and expansion, but not for GSE's corporate transformation into a commercial and financially sustainable corporate entity. GSE currently lacks corporate-style management and independent decision making.

7. Georgian electricity transmission is characterized by relatively strong defensive qualities, including noncyclical and inelastic demand with stable growth in sales and predictable revenues backed by a new tariff setting. The tariffs are based on a transparently determined cost plus return on regulated asset-base, providing a strong basis for GSE's revenue generation from domestic transmission operations. However, the new tariffs have not improved GSE's financial position because of its weak internal management structure, lacking corporate ring fence provisions to commercialize assets, and due to insufficient volumes adversely impacting transit volumes.

8. **Weak financial management and unsustainable government financial support**. Currently, the government must support transmission grid expansion through sovereign debt and budget cofinancing because of commitments made with investors under PPAs, and to safeguard

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[4] Enguri HPP (1,300 megawatts) and Vardnili HPP (220 megawatts) are the two largest hydropower plants, contributing almost half of the total hydropower generation in Georgia.

[5] Official Journal of the European Union. 2014. 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. The EU's Third Energy Package comprises legislation related to the opening of the EU's gas and electricity market. It was proposed by the European Commission in September 2007 and adopted by the European Parliament and the Council of the European Union in July 2009.

the broader energy sector reform commitments made with the EU. Under the existing management structure and low trade volumes, GSE will be unable to meet its future capital expenditure requirements and full debt service obligations, and may impose an increasing burden on the government accounts and debt sustainability. Implementing GSE's rehabilitation plan and borrowing for the planned transmission network expansion without increased revenues from regional trade and transit will distort GSE's sustainability by impacting its capital structure and liquidity gap.[6] The Ministry of Finance is the sole guarantor for GSE borrowings, and GSE's financial instability will impose greater fiscal and debt management risks to the government.

9. **Lack of competition in electricity trading**. Under the current reforms, the government is considering establishing an independent market operator to align its market practices with the EU. Independent and competitive market operations need to be established to promote private sector operations and a competitive electricity trade. Existing PPAs currently limit dispatch to PPA terms. Excess power trade and open competition through a newly created market operator will increase transparency and competition in electricity trading. KfW is supporting the government in establishing a market operator as part of the policy actions under an agreed program, but technical and financial support to create related structures, an operational strategy, and interim financial support—including developing an innovative business model as part of market operations—will help make the operator functional.

B. Policy Reform and ADB's Value Addition

10. Georgia's Parliament adopted the State Policy in Energy Sector (2015) to support (i) diversification and utilization of renewable generation to fully meet the domestic demand for electricity, (ii) Georgia's emergence as a regional platform for generation and trade of clean energy, (iii) implementation of east–west and north–south transit projects to strengthen regional connectivity, and (iv) gradual harmonization with the EU's third energy package (footnote 5). Sustainability of the key components of the strategy requires a strong and stable transmission network run by a fully independent and financially stable GSE, and electricity trading through open market operations. The government intends to rationalize the financial management and enhance the financial stability of GSE to reduce its reliance on the government's budget. Rationalization of state-owned enterprises in general is also a key reform under the IMF program.

11. In April 2018, Parliament ratified the accession agreement to the European Energy Community (EEC) and the country's subsequent membership in the EEC. The membership framework requires that the government align its energy market practices with EU's best practices, which requires changing the tariff calculation methodology for electricity, and adopting a competitive electricity market structure. ADB's proposed policy-based program is in line with the government's Energy Sector Strategy and its commitments under the EEC accession agreement.

12. Given its long experience in designing and implementing policy-based loans in this region that cover similar areas, ADB is well prepared to design the proposed program. Experience and knowledge of the regional electricity market in Azerbaijan and Armenia and earlier work on transmission sector development in Georgia will contribute to effective program design and delivery, with a focus on enhancing cross-border trade with Georgia's neighbors.

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[6] GSE's capitalization is well below the industry requirement of 3:1, resulting in a high risk of insolvency. Estimated foreign exchange losses of over $40 million have produced negative operating income and eroded GSE's equity. GSE's debt service capacity is projected to be below the industry requirement of 1.2, and is projected to remain insufficient in 2019–2022. GSE's liquidity gap is widening, and projected at over $30 million during 2018–2022.

13. To comply with EEC membership requirements, international development partners are supporting the reform agenda: (i) KfW, through a policy-based loan, is supporting energy market reforms, liberalization and unbundling; and (ii) the IMF is providing advice regarding Georgia's fiscal risk, public debt sustainability, and contingent liabilities. Gaps do remain, with GSE's sustainability a key challenge (especially following expiration of its ring-fenced rehabilitation period). ADB support through this program (i) complements and leverages other energy sector reform support, especially the IMF's program (corporatization of GSE and lessening its reliance on government support will improve the Georgia's macroeconomic situation); and (ii) can constitute a GSE-focused reform framework to coordinate and maintain momentum in implementing challenging sector reforms. ADB consulted with IMF, KfW and the World Bank during March–May 2018 and will continue engagement during project preparation.

C. Impacts of the Reform

14. The impacts of the reforms will be financial sustainability and sector performance enhanced in the energy sector of Georgia. The outcome of the program will be GSE autonomy and competition in electricity trading enhanced. The reform areas will be (i) GSE's corporate governance; (ii) GSE financial management, transparency, and debt sustainability; and (iii) electricity market operations.

D. Development Financing Needs and Budget Support

15. The stand-alone policy-based program is estimated to cost $50 million and will be required in 2019.[7] The program size is reasonable, considering the client's financing needs, efficiency, absorption capacity, and ADB's strategic intervention in the sector. The loan will be provided through ADB's ordinary capital resources (regular).

E. Implementation Arrangements

16. The Ministry of Finance will be the executing agency, MOESD will be the implementing agency, and GSE will lead in implementing policy actions. A technical team established within MOESD and the Ministry of Finance, comprising ministry staff and experts hired under the TA, will be responsible for implementing the program actions and coordinating with development partners. The policy gaps and required actions will be identified and implemented with support from the transaction TA experts during July 2018–January 2019.

III. TECHNICAL ASSISTANCE

17. The attached transaction TA is estimated to cost $850,000, of which $700,000 from ADB's Technical Assistance Special Fund (TASF-Others) is proposed to be attached to the loan to help implement the policy actions under the loan.

IV. DUE DILIGENCE REQUIRED

18. The following assessments will be carried out during the program preparatory work:

(i) **Safeguards.** Direct and indirect impact assessment of the proposed policy actions on the environment, involuntary resettlement, and indigenous peoples.

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[7] The government may consider one or two tranches, depending on fact-finding outcomes. If some policy actions are found to be not achievable by the Board circulation date, the program will include two tranches.

(ii) **Economic.** The economic viability and sustainability of the program will be assessed, and the economic benefits of the proposed policy reforms evaluated.
(iii) **Financial.** GSE's financial position assessment as per ADB guidelines.[8] Conduct financial, development coordination and detailed sector analysis.
(iv) **Governance.** Public financial management, anticorruption, and capacity issues and mechanisms will be agreed with the government as part of the program design. Corporate governance analysis will cover GSE. Country procurement and governance and its impact on program will be assessed.
(v) **Poverty and social.** No poverty, social, or gender issues requiring specific attention were identified. The program impact will indirectly benefit the poor.

V. PROCESSING PLAN

A. Risk Categorization

19. The proposed program is categorized *low* risk as (i) the loan amount does not exceed $50 million; (ii) ADB has a positive record of energy sector intervention in Georgia; and (iii) the executing and implementing agencies have good experience with externally financed projects, including implementing similar sector reform projects financed by development partners.

B. Resource Requirements

20. The program will be processed by ADB sector staff with expertise in the energy sector reforms. Staff will dedicate an estimated total of 10 person-months in processing the program.

C. Processing Schedule

21. The indicative processing schedule is in Table 1.

Table 1: Proposed Processing Schedule

Milestones	Expected Completion Date
Consultation mission	May 2018
Concept paper and TA approval	July 2018
Fact-finding mission	January 2019
Staff review meeting	March 2019
Loan negotiations	April 2019
Board consideration	May 2019
Loan signing	July 2019

TA = technical assistance.
Source: Asian Development Bank staff.

VI. KEY ISSUES

22. The key issues are (i) to develop and implement the corporate governance plan—support from experts hired under the TA will be provided to address this issue; (ii) weak capacity of stakeholders in implementation of policy actions—the proposed TA will provide capacity support; and (iii) coordination among stakeholders—the government will be requested to organize regular meetings and information sharing with stakeholders with support of experts hired under the TA.

[8] ADB. 2015. Financial Management Assessment. *Financial Management Technical Guidance Note.* Manila.

DESIGN AND MONITORING FRAMEWORK
(Initial Draft)

Country's Overarching Development Objective

Financial sustainability and sector performance achieved (Georgia State Energy Policy).[a]

Results Chain	Performance Indicators with Targets and Baselines	Data Sources and Reporting Mechanisms	Risks
Effect of the Reform GSE autonomy and competition in electricity trading enhanced	By 2020 a. All technical, financial, and administrative decisions are made by the board of directors of GSE (2017 Baseline: decision-making at ministry level) b. GSE board of directors delegated financial and technical powers to GSE management for day–to-day affairs (2017 Baseline: not delegated) c. Electricity traded based on open market competition (2017 Baseline: Electricity trade fully regulated)	a. GSE board resolution b. GSE board resolution c. IMO's annual energy statistics	Increasing volatility of regional power market

Results Chain	Performance Indicators with Targets and Baselines	Data Sources and Reporting Mechanisms	Risks
Reform Areas	**Indicative Policy Actions**		
1. GSE's corporate governance	1.1 Corporate integrity procedures approved for risk, audit, and compliance management (2017 Baseline: not approved)	1.1 GSE annual financial statements	New government and Parliament do not prioritize these reforms
	1.2 Independent supervisory and management board established (2017 Baseline: not established)	1.2 Minutes of first board meeting issued by secretary	
2. GSE financial management, transparency, and debt sustainability	2.1 Long-term sustainable debt management strategy approved (2017 Baseline: not approved)	2.1 MOF notification and GSE annual financial statements	
	2.2 CFO, treasury, and risk management functions established (2017 Baseline: not established)	2.2 GSE notification	
	2.3 Reporting and disclosure procedures approved (2017 Baseline: not approved)	2.3 GSE notification	
3. Electricity market operations	3.1 Corporate structure of IMO approved and strategy on handling of PPAs made (2017 Baseline: not applicable).	3.1 MOESD notification	
	3.2 IMO management board and key staff appointed and business account with seed money provided. (2017 Baseline: not applicable).	3.2 IMO notification	

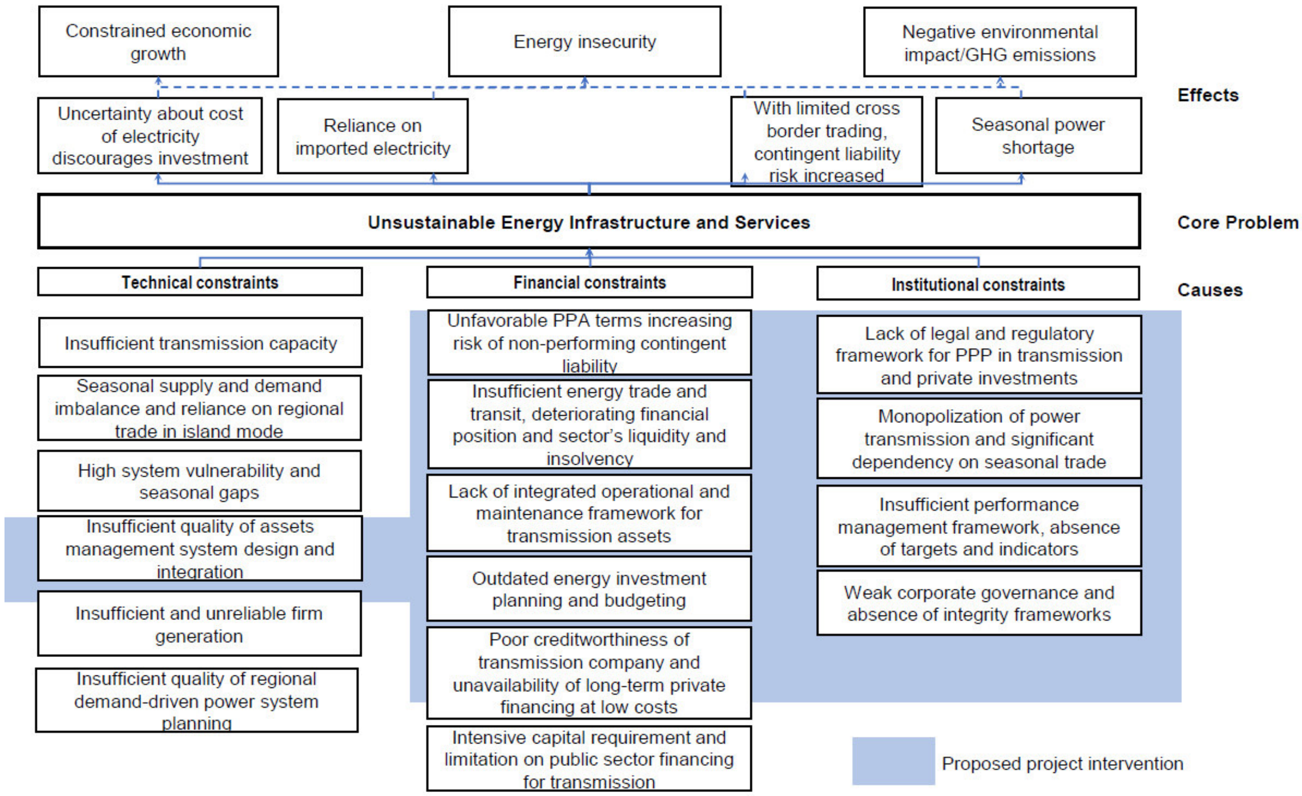
Budget Support
ADB: $50 million (loan); $700,000 (transaction TA)

ADB = Asian Development Bank, CFO = chief financial officer, GSE = Georgian State Electrosystem, IMO = independent market operator, MOESD = Ministry of Economic and Sustainable Development, MOF = Ministry of Finance, PPP = power purchase agreement, TA = technical assistance.

[a] Government of Georgia. 2015. *State Policy in Energy Sector.* Tbilisi.

Source: Asian Development Bank.

PROBLEM TREE



GHG = greenhouse gas, PPA = power purchase agreement, PPP = public–private partnership.

LIST OF LINKED DOCUMENTS

http://www.adb.org/Documents/LinkedDocs/?id=49006-003-ConceptPaper

1. Initial Poverty and Social Analysis
2. Technical Assistance for Program Preparation