Implementation Completion Report (ICR) Review

Report Number: ICRR0024153

1. Project Data

Project ID P147348	•	Project Name Transmission Grid Strengthening Project		
Country Georgia	Practice Area(Lead) Energy & Extractives			
L/C/TF Number(s) IBRD-83770	Closing Date (Original) 31-Mar-2019		Total Project Cost (USD) 58,005,596.87	
Bank Approval Date 13-May-2014	Closi 31-Ma			
	IBRD	/IDA (USD)	Grants (USD)	
Original Commitment	60,000,000.00		0.00	
Revised Commitment	58	0.00		
Actual	58,005,596.87 0.00			
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2. Project Objectives and Components

a. Objectives

The project development objectives, as cited in the Loan Agreement (p.6), as well as on p.5 of the PAD, were "to provide reliable power transmission to the southwestern part of the grid, upgrade electricity exchange systems and provide economically efficient, environmentally and socially sustainable electricity sector planning".

In assessing the project, the objectives will be parsed as follows:

- (a) To provide reliable power transmission to the southwestern part of the grid,
- (b) To upgrade electricity exchange systems, and
- (c) To provide economically efficient, environmentally and socially sustainable electricity sector planning.
- b. Were the project objectives/key associated outcome targets revised during implementation?
 Yes

Did the Board approve the revised objectives/key associated outcome targets?

c. Will a split evaluation be undertaken?

d. Components

Component 1: Transmission System Strengthening (Estimated cost at appraisal: US\$52.35 million. Actual cost at closing: US\$63.38). This component financed the construction of the ABTL, a double circuit 220 kV high-voltage line connecting the Akhaltsikhe DC converter station with back-to-back configuration and 500/400/220 kV substation to Batumi 220 kV substation (US\$45.46 million), including contingency (US\$2.5 million) and a supervision consultant (US\$4.2 million). The ABTL was intended to provide redundancy and hence reliability to the southwest part of the grid, while supporting the evacuation of excess power to Türkiye during the warm months.

Component 2: Wholesale Power Exchange Platform (**Estimated cost at appraisal**: US\$7.5 million; **Actual cost at closing**: US\$4.135 million). The component financed the supply and installation of a power exchange platform, including hardware and software for metering, balancing and trading systems. It would also finance the design and supervision of this platform.

Component 3: Electricity Sector Strategic Environmental and Social Assessment (**Estimated cost at appraisal**: US\$1.25 million; **Actual cost at closing**: US\$0.857 million). This component financed the preparation of the Strategic Environmental and Social Assessment (SESA) report, based on terms of reference from the Ministry of Environment & Natural Resources (MoENR), to be finalized through joint public consultations and incorporated into the revised power sector strategy to be developed for the country.

Component 4: Project Management and Transmission System Studies (**Estimated cost at appraisal**: US\$0.62 million; **Actual cost at closing**: US\$1.857 million). The aim of the component was to support (a) consultants' services to assist the Project Implementing Entity for the purposes of: (a) a new transmission-system expansion plan, (b) prospective transmission line feasibility studies, and (c) preliminary designs for the prospective transmission lines.

e. Comments on Project Cost, Financing, Borrower Contribution, and Dates

Project Cost and Financing

The cost of the project was initially estimated at US\$61.875 million, based on an IBRD loan of US\$60 million and Borrower contribution of US\$1.875 million. The cost of the ABTL however turned out to have been overestimated, as bidding for the contract resulted in a lower price of US\$36.65 million in lieu of the estimated price of US\$45.65 million, or a saving of US\$9 million. The savings allowed additions to be introduced to the components in the form of the reconstruction and rehabilitation of 102 km for three 220 kV transmission lines and the upgrading of various substations, under Component 1 and software to upgrade the existing Supervisory Control and Data Acquisition (SCADA) system and the energy management system (EMS, under Component 2 – thereby enhancing the scope of the project.

Borrower contribution

A Borrower contribution of US\$1.875 million equivalent was envisaged at appraisal, as part of the project's financing. Actual disbursements on this account turned out to be much higher, to the extent of US\$12.594 million equivalent.

Dates

The project was approved on May 13, 2014, becoming effective on December 29, 2014. A Mid-Term Review was held on June 21, 2017. The original closing date of March 31, 2019 was extended twice – by an initial 24 months, through the March 2019 restructuring, and by another 25 months in the February 2021 restructuring, to the final closing date of March 30, 2023. This brought the project's implementation from approval to closing to just under nine years, in lieu of the original four years and 10 months.

3. Relevance of Objectives

Rationale

Country and Sector Context

Georgia's economy grew at around 6 percent during 2004-13, fueled by strong inflows of foreign direct investment (FDI). However, the 2008 conflict with Russia and the global financial crisis led to a sharp economic downturn and a contraction of GDP by 3.8 percent in 2009. The Government of Georgia (GoG) responded with a fiscal stimulus package and public investments, which led to a recovery in economic growth, at more than 5 percent during 2010-13, though FDI amounted to only a third of its previous high in 2007.

Despite the economic recovery, at the time of appraisal, the country had a high rate of unemployment and its poverty rate was among the highest within the Europe and Central Asia region. The role of infrastructure in promoting economic growth was increasingly seen as critical, with an emphasis on affordable, reliable, clean energy to enable the private sector to compete, grow and contribute to the job creation necessary for boosting shared prosperity.

The GoG had made major strides towards improving the performance of the power sector during the preceding decade. Commercial management had improved dramatically and collections for billed electricity

had improved enormously, to nearly 100 percent. Although Georgia had no overall shortage of supply, it was highly dependent on imported power to meet seasonal demand, raising concerns over security of supply. The country's power consumption peaked in winter, when hydropower generation was at its lowest, necessitating reliance on substantial imported electricity or domestic natural gas-fired thermal generation to make up the shortfall. In summer, no imports of power were required and – on the contrary – a surplus was available for export. By increasing the share of hydropower plants with seasonal storage capability, Georgia would be able to lessen its seasonal dependence on imported energy sources, enhancing the security of supply.

It was estimated that without major investments in domestic seasonal generation, the security of power supply would diminish further as Georgia's economy grew, creating increased demand for power. Even with a major increase in generation, weak parts of the transmission grid were likely to impede security of supply. The northern, southwestern and northwestern branches of the transmission grid did not have sufficient capacity to transmit power from the new generation facilities in that area. The Transmission Grid Strengthening project was relevant in so far as it could help improve the stability and security of the grid's supply by constructing a new high voltage transmission line from Akhaltsikhe to Batumi to evacuate power from the newly developed Adjaristsqali hydropower project there.

Alignment with Country Strategies

The Project's development objectives were consistent with those of the World Bank Group (WBG)'s country strategy for Georgia, over the period of implementation. By contributing to the provision of infrastructure, the project supported Focus Area 2 ("Enabling Job Creation by the private sector through improving competitiveness"), Objective 8, of the Country Partnership Strategy, 2014-17, which highlighted the potential for enhancing energy independence, energy efficiency and increased electricity exports. The project's objectives continued to be broadly consistent with those of the most recent Country Partnership Framework (CPF), (2019-22) under Objective 3.3, dealing with the management of natural resources and climate risks, activities in the electricity sector complementing the resilience agenda, which underpinned Focus Area 3 of the Framework. The project's objectives were also consistent with Focus Area 1 of the CPF, which aimed to enhance inclusive growth and competitiveness, in so far as it contributed to the country's energy connectivity with neighboring countries like Armenia, Azerbaijan, Russia and Türkiye via a regional power exchange hub. The ICR further argues (p.14) that the addition of the three transmission rehabilitation subcomponents in the Imereti region would help enhance, through more reliable electricity, the participation of the local population in economic activities and would increase regional economic participation, consistent with Objective 1.4 of the CPF.

Since 1997, the World Bank had financed eight projects in the country's energy sector for a total of US\$300 million. The Georgian State Electrosystem (GSE), as implementing partner, had successfully managed three projects as well as investments financed by other development partners, and had established a good track record of operating transmission assets. Against this background, the project marked an enhanced level of complexity and ambition, consistent with GoG and GSE's implementation capacity. The project recognized the power market development potential that sector unbundling had created, for both trading power domestically and for exporting power as a tradable, through installation of a wholesale power exchange platform and related metering, whilst also augmenting GoG's hydro development plan with least cost and environmentally and socially sustainable planning.

Based on the above, Relevance is rated High.

Rating

High

4. Achievement of Objectives (Efficacy)

OBJECTIVE 1

Objective

"To provide reliable power transmission to the southwestern part of the grid"

Rationale

Theory of Change (TOC)

At appraisal, the operation was structured around the objectives of providing reliable power in the southwestern part of the grid, upgrading electricity exchange systems and providing efficient and environmentally sustainable planning. Key activities consisted of (a) installation/rehabilitation of transmission lines plus substations, (b) installation of a wholesale power exchange platform, providing metering, balancing and trading, (c) preparation of a Strategic Environmental and Social Assessment (SESA) report, along with transmission systems studies. These in turn were expected to lead to the main outcomes of more reliable power transmission provided to the Southwestern part of the grid, power being traded via the new exchange platform, and economically efficient, environmentally and socially sustainable electricity sector planning being provided.

Indicators used to measure the achievement of objectives were fairly straightforward. Key outcome indicators included the elimination of outages in Batumi substation, the successful evacuation of electricity from newly developed power stations in Southwestern Georgia via the grid, the successful exchange of power using the new Wholesale Exchange Platform, and the results of the least cost planning and strategic environmental assessment being included in the Government's hydropower development plan. The 2016 restructuring introduced additions to the components, based on contract savings, including the reconstruction/rehabilitation of 102 km for three 220 kV transmission lines and upgrading of substations, and software to upgrade the existing Supervisory Control and Data Acquisition (SCADA) and energy management (EMS) systems. Changes were accordingly made to indicator targets and an additional core indicator added. It should be noted, as mentioned by the ICR (p.21) that the results indicators were oriented more towards outputs than outcomes, which had a bearing on the monitoring of achievements.

Assumptions underpinning the TOC were that (a) least-cost planning would in fact be part of the Government's hydro development plan, and (b) that actions other than the power exchange system, necessary for power trading, would also be undertaken elsewhere in the sector.

Outputs

By March 2024, the following outputs were delivered by the project:

- 1. Rehabilitation of a total of 102 km of three existing 220 kV transmission lines (Menji-Kutaisi, Tskaltubo-Kutaisi and Kutaisi-Zestaphoni), accompanied by the upgrade of Menji, Tskaltubo, Kutaisi and Zestaphoni substations.
- 2. Construction of the Western Section of the ABTL consisting of 52.4 km of 220 kV double circuit transmission line connecting Batumi substation to Shuakhevi HPP (175 MW) via the Koromkheti HPP (150 MW).
- 3. Construction of Part 3 of the Eastern Section of the ABTL, for a total of 56.8 km of 220 kV double circuit transmission line, comprised of 40.3 km connecting Adigeni to Akhaltsikhe and 16.5 km connecting Adigeni to Beshumi.

In total, the project constructed or rehabilitated 211.2 km (86 percent) of the targeted 244 km of transmission lines. Construction of Part 3 of the Eastern Section of the ABTL was not however completed by project closing, leaving 39 km connecting Shuakhevi to Beshumi – equivalent to 26 percent of the ABTL - pending completion.

Outcomes

Despite the shortcoming in terms of completing the ABTL, the project registered some important outcomes:

- (a) The key PDO indicator relating to total electricity evacuated from the newly developed power generation station in southwestern Georgia through the grid was more than fully achieved, with 443 GWh being successfully evacuated, against a target of 400 GWh. This went a long way toward easing the overload on the transmission lines and the substations, and could reasonably be expected to lead to fewer electricity outages, especially during the summer months, when demand was high.
- (b) The Batumi substation saw a decrease in total duration of outages from a baseline of 136 hours to zero (target was 0.50). While, technically, this would be a measure of system reliability rather than transmission reliability *per se*, it would not be possible to achieve a system reliability of zero outages without reliable transmission capacity to evacuate power generated; hence, it can be taken as a dependable proxy for achieving transmission reliability.

In this way, there was overall a clear improvement in the reliability of power transmission to the southwestern part of the grid, consistent with the objectives of the project. This was a consequence of western section of the ABTL, connecting Batumi to Shuakhevi HPP, and the rehabilitation/upgrading of the three existing lines, now providing stability by acting as backup to the transmission grid backbone. That said, the original intent was to improve reliability through establishment of redundancy in the system via the ABTL, 26 percent of which remained to completed at the time of closing. On account of this important shortcoming, but taking into account the significant progress made on other fronts, efficacy of Objective 1 is rated Substantial.

Rating Substantial

OBJECTIVE 2

Objective

"To upgrade electricity exchange systems"

Rationale

To achieve this objective, the project was to finance the design, supply, supervision and installation of an upgraded power exchange platform – including hardware and software for metering, balancing and trading systems. The project was additionally to upgrade the SCADA/EMS, to make it compatible with the more advanced metering systems being added to the platform.

Outputs

- Both the wholesale power exchange platform and the SCADA/EMS were installed and upgraded. By project closing, the platform had been tested for 1.5 years and was technically functional, though not yet operational.

Outcomes

Power was nominally exchanged (traded) using the new platform; though this represented a virtual (rather than actual) trading volume of 60 percent of Georgia's total electricity demand, as reported by the dry run day ahead market (DAM). Operationalization of the platform however required a functioning wholesale market (as per the assumptions underpinning the TOC), in turn necessitating politically sensitive policy reforms by the Government to liberalize and deregulate the market. Since it was unclear when such reforms would be undertaken, without which actual trade and exchange of power could not take place, achievement of PDO2 is rated as Modest.

Rating

Modest

OBJECTIVE 3

Objective

"To provide economically efficient, environmentally and socially sustainable electricity sector planning"

Rationale

Under this objective, the project was expected to finance consultancy services to prepare a strategic environmental and social assessment (SESA) of the electricity sector. The Ministry of Economy (MoE) and Ministry of Environment and Natural Resources (MoENR) were tasked with jointly preparing terms of reference for the preparation of an assessment, conduct public consultation meetings and seek feedback. The findings of the assessment would feed into a revised power sector strategy that would be developed. Achievement of this objective would be measured by the results of the least cost planning and strategic environmental assessment being incorporated into the GoG's hydropower development plan - which was in practice a somewhat narrower measure than the objective of efficient and sustainable sector planning. The SESA document was meant to serve as an important input into the Strategic and Environmental Assessment (SEA) of the ongoing draft National Energy and Climate Plan (NECP), being supported by The United States Agency for International Development (USAID).

Outputs

- The Strategic Environmental Assessment was prepared, prior to project closing, based on the feedback received from all stakeholders. The required public consultation was kicked off by public disclosure of the document (completed in December 2023), upon holding two meetings of national stakeholders.

Outcome

The SESA developed four scenarios, of which Scenario 1 was the least cost generation plan. The Government however adopted Scenario 4, the National Energy and Climate Plan, which – though not technically the least cost generation plan – turned out (per the ICR's analysis) to result in the lowest overall energy consumption of all the scenarios; hence, in practical terms was the least cost approach. As such, the results of the least-cost planning and strategic environmental assessment were incorporated into GoG's hydropower development plan.

Rating Substantial

OVERALL EFFICACY

Rationale

The project contributed substantially to the achievement of the development objectives by helping to improve reliability of power transmission to the southwestern part of the grid. It succeeded in upgrading the electricity exchange systems, but only modestly succeeded in its objective of operationalizing the new exchange platform due to the inability of GoG to create the necessary (functioning) wholesale market. The project however substantially succeeded in providing economically efficient, environmentally and socially sustainable electricity sector planning. Based on this, overall efficacy is rated Substantial.

Overall Efficacy Rating

Substantial

5. Efficiency

Economic Efficiency

Economic analysis conducted at appraisal indicated an economic internal rate of return (EIRR) of 13.4 percent and a Net Present Value (NPV) of US\$3.12 million, discounted at 12 percent. After the first restructuring, which increased the scope of the project out of the savings obtained in contracting, without increasing its cost, the EIRR was recalculated at 56.5 percent, and the NPV to US\$216 million. Due to reconsideration of some of the

assumptions underlying these calculations, the ICR re-estimated the EIRR at both appraisal and restructuring at 13 percent and 81 percent respectively (and the NPV at US\$2.05 million and US\$215 million respectively). In comparison, the estimated EIRR at project closing, as calculated by the ICR, worked out to 60 percent, with NPV estimated at US\$194 million. These estimates suggest that the project was mostly efficient, overall, principally on account of the inclusion of the three transmission line rehabilitations in the first restructuring, which were successfully carried out.

Operational/Administrative Efficiency

The project faced several implementation issues resulting in delays and cost overruns on some items (though these were offset by the overall contract savings). Disputes with the contractor over compensation led to a sixmonth suspension by the World Bank of further construction on the Eastern section of the ABTL in 2018, until issues were settled. As noted in the Borrower's ICR, resistance from the local population to particular construction locations and activities had also been a significant challenge causing delays in construction. The project's overall implementation period, including the 24-month extension of closing date required for the expanded scope of the operation, was nine years compared to the nearly five years originally envisioned.

Taking into account the positive economic efficiency estimated for the operation, tempered by implementation delays negatively impacting administrative and operational efficiency, the project's overall efficiency is rated Substantial.

Efficiency Rating

Substantial

a. If available, enter the Economic Rate of Return (ERR) and/or Financial Rate of Return (FRR) at appraisal and the re-estimated value at evaluation:

	Rate Available?	Point value (%)	*Coverage/Scope (%)
Appraisal	✓	13.40	100.00 □ Not Applicable
ICR Estimate	✓	60.00	100.00 □ Not Applicable

^{*} Refers to percent of total project cost for which ERR/FRR was calculated.

6. Outcome

The project's development objectives were highly relevant to the World Bank's most recent Country Partnership Framework (FY2019-22). The project was substantially effective, overall, in its objectives of providing reliable power transmission to the southwestern part of the grid and of providing environmentally and socially sustainable electricity sector planning, but modestly effective in upgrading electricity exchange systems. The project's efficiency was rated Substantial. As such, the project's Overall Outcome is rated Moderately Satisfactory.

a. Outcome Rating Moderately Satisfactory

7. Risk to Development Outcome

The overall risk of the project was rated Moderate in the ICR. Uncertainties existed on account of the fact that the eastern section of the grid is yet to be completed and fully energized. Once that is done, the risk would be expected to decline to Moderate, over time. At a technical level, the risk to reliability of power transmission, manifested in outages arising in the Batumi service area, is considered to be low, and would be a function of higher-than-expected demand growth rather than the operations of the transmission capacity constructed on the ABTL or rehabilitated within the Imereti region.

The risk that the power exchange system will not be sustained is Moderate at the technical level, since the platform has already been constructed. A greater risk is that the wholesale market does not function, that the average clearing prices remain in excess of least cost, due to strategic bidding and other market inefficiencies, over protracted periods, leading to eventual market failure and consequently redundancy of the exchange system.

Political and governance risks are rated low, in view of the expected transition from a merit order and central dispatch configuration to a market-based trading configuration. However, there would be a moderate risk that sector planning could itself be superseded by investments driven by market forces, sidelining the role of sector planning.

8. Assessment of Bank Performance

a. Quality-at-Entry

The design of the project was consistent with the objectives of the sector, as laid out in the World Bank's Country Program Strategy, namely to meet a critical need for the country in addressing concerns regarding the security of its supply of electricity. It drew upon the lessons learned from similar Bank engagements in countries such as Azerbaijan and Kazakhstan, as well as in Georgia. The appraisal identified (PAD, p.9) substantial risks arising on account of the complex environmental, social and technical challenges associated with the design, construction and operation of the transmission line. It also reflected the complexity of aligning the completion of the transmission line with the development of the associated hydropower project, with its multiple stakeholders. A lack of consensus among the various stakeholders on the best way to transition from a merit-order central dispatch system to a market-based wholesale trading system, and on the final design of the wholesale power market, turned out to be a key constraint impacting the design and implementation of the power exchange system.

The ICR mentions (para 47) that while the objectives of the project were mostly realistic, they were oriented more towards outputs than outcomes, and with a results framework that did not always yield a

measure of the objectives. This meant that monitoring of the indicators would not necessarily provide a good assessment of the achievement of objectives.

On the basis of the above, the project's quality at entry is rated Moderately Satisfactory.

Quality-at-Entry Rating Moderately Satisfactory

b. Quality of supervision

According to the ICR (pg. 29), project supervision was thorough, though the 15 Implementation Status & Results Reports (ISRs) that were completed over the nine-year implementation period indicated a frequency that was less than standard. Five task team leaders (TTLs) were assigned to the project over the period. The team was proactive in restructuring the operation to utilize and reallocate contract savings and to arrange for the closing date extensions that were necessitated. When issues arose regarding compensation for project-affected persons (PAPs), the Bank team intervened to suspend further project-related civil works until all RAP (Resettlement Action Plan) entitlements were settled. The ICR also indicates that on-site local supervision by the locally-resident TTL and project team was instrumental in achieving much of the implementation progress that was actually achieved. The Bank team was also instrumental in facilitating a smooth transition of Component 3, by arranging for SESA public consultations to take place as part of the NECP public discussions being supported by USAID.

Based on this, quality of supervision is rated Satisfactory.

Quality of Supervision Rating Satisfactory

Overall Bank Performance Rating Moderately Satisfactory

9. M&E Design, Implementation, & Utilization

a. M&E Design

As indicated earlier, results indicators were biased towards outputs rather outcomes, making it somewhat more difficult to monitor achievement of objectives. This shortcoming was to some extent mitigated by the frequency of monitoring, which was provided for in the Results Framework. The ICR (para 58) also points to a slight lack of clarity at the outset as regards the monitoring arrangements for environmental & social safeguards, as to whether these lay with the Resettlement Management Team of GSE or the Environmental and Social Safeguards Unit. Though the issue was eventually resolved, according to the ICR this could be considered a moderate shortcoming in M&E design.

b. M&E Implementation

Overall, M&E arrangements appear to have been adequate and satisfactorily implemented. According to the ICR (para 59), GSE diligently reported on the monitoring indicators for the ABTL as well as for the rehabilitation of the three 220 kV lines and the creation of the power exchange platform. PDO and intermediate indicators were regularly updated in the ISRs, reflecting GSE's compliance with monitoring reporting requirements. On the ground, monitoring of contractor activities was also detailed and enabled timely response by the supervision team.

c. M&E Utilization

M&E utilization was adequate, as reflected in timely restructurings of the project, as well as proactivity in terms of resource allocation, guidance and consultation in dispute resolution and efforts to find alternative solutions to resolve the lack of consensus among stakeholders.

M&E Quality Rating Substantial

10. Other Issues

a. Safeguards

Environmental: The project was classified as Category A, triggering OP/BP 4.01, requiring preparation of a full-scale ESIA), public consultations and development of a Resettlement Policy Framework (RPF) and a Resettlement Action Plan (RAP). The following other safeguards were triggered under the Bank's Safeguards Policy: OP/BP 4.04 (Natural Habitats), OP/BP 4.11 (Physical Cultural Resources), OP/BP 4.36 (Forests) and OP/BP 4.37 (Dam Safety). As of March 2023, all OP/BP 4.01 items were in compliance. An ESIA was prepared and rated Moderately Satisfactory, and compliance with all remaining safeguard policies was rated Satisfactory. A supplemental ESIA for the entire ABTL corridor, produced on account of the realignment of parts of the Eastern section of the ABTL, was disclosed and consultations held with stakeholders. The ICR does not clarify whether all other safeguard polices were in compliance. However, the ICR does indicate (para 63) that in the operations phase of the overhead transmission line (OHL), GSE - as owner – would ensure functioning of the environmental, health and safety system in compliance with ISO 14000, local legislation and the World Bank's requirements, with an estimated budget of US1.72 million over its 30-year operating lifespan.

<u>Social</u>: In view of the implications of the right-of-way (ROW), common to most transmission projects, OP/BP 4.12 (Involuntary Resettlement) was triggered, as ABTL was expected to acquire some 10 ha of land with easement for the ROW, requiring relocation of roughly 60 houses. This called for preparation of an RPF by GSE, with site-specific RAPs to be prepared once the exact positioning of the line was established. A rating of Moderately Satisfactory was provided for compliance of this policy at project closing. Since more than 80 percent of the original routing had to be changed during implementation, three new ESIAs and four new RAPs had to be prepared. Complicating the resulting social issues was the fact

that the project was out of social compliance and suspended for six months – notwithstanding which the outstanding actions from the RAP completion report for the three completed sections were successfully completed and compensation for the remaining portion of the Eastern section was almost fully paid.

GSE has continued to maintain a Grievance Redress Mechanism (GRM) under a new Energy Supply Reliability and Financial Recovery Project (P169117), with assistance from the World Bank's global surge initiative. A consolidated grievance log was created by GSE, with an improved classification system for grievances, and providing gender sensitization for its staff. At end-2022, GSE also introduced software that helped track and manage E&S issues, including progress on resettlement and the status of GRM.

b. Fiduciary Compliance

According to the ICR (page 28), GSE was responsible for financial management (FM) for all components except for Component 3, which would be implemented by MoE; though GSE retained responsibility for consolidation and submission of the project's annual budgets, quarterly interim financial reports (IFRs) and annual financial statements to the World Bank. The project's overall FM risk was assessed as Moderate at inception.

FM arrangements were found to have been satisfactory at project closing and acceptable to the World Bank during implementation. Unaudited IFRs were submitted on time and were of acceptable quality. During the Covid-19 pandemic, audited project financial statements for the year ended December 31, 2021 were submitted with a delay of one month, but nevertheless found acceptable. The auditor issued an unmodified opinion on the entity financial statements. No potential FM-related issues or risks were flagged that could hinder project implementation.

A Procurement Risk Assessment and Management Report conducted at appraisal identified a risk that GSE did not necessarily have the capacity to coordinate procurement activities under the project or to properly evaluate the bids in timely manner without external consulting support. To mitigate these risks, the Bank's procurement specialist conducted a bid evaluation course, and organized attendance at regional procurement training in April 2014 (also, subsequently, in March and April 2022). Procurement risk was evaluated as Moderate after applying these mitigation measures. A Procurement Plan was prepared (to be updated annually), and the e-procurement platform was to be used for procurement of goods. As of September 2022, the project's procurement risk remained Moderate and procurement performance was rated Moderately Satisfactory (on account of the remaining work contract not being completed by closing).

c. Unintended impacts (Positive or Negative)

The ICR indicates (para 43) that the project helped strengthen GSE's Environmental and Social Management System. Prior to the project, GSE had just one safeguards specialist; but as the project was being prepared, an E&S safeguards unit was created in the International Projects and Reporting Department. The preparation of the SESA under Component 3 would further strengthen electricity generation expansion planning in Georgia through incorporation of adequate E&S considerations.

d. Other

11. Ratings			
Ratings	ICR	IEG	Reason for Disagreements/Comment
Outcome	Satisfactory	Moderately Satisfactory	The ICR rates outcome as MS in the main text.
Bank Performance	Moderately Satisfactory	Moderately Satisfactory	
Quality of M&E	Substantial	Substantial	
Quality of ICR		Substantial	

12. Lessons

IEG derives the following lessons from the ICR:

- 1. The transition from a merit order-based regulated system to a market-based system for providing stable low-cost power to the consumer needs to take into account the level of development of the system: As demonstrated by the project, the degree of volatility identified by the market opening study and the initial lack of consensus on an appropriate market structure suggested that careful consideration needed to be given to the structuring of the wholesale market in terms of its institutions and regulatory framework, to provide assurance of a stable revenue stream for new entrants. Secondly, the regulatory environment for such a market needed to provide assurances early on of prevention of market abuse. Thirdly, the relative fiscal costs of the safety net under market-based pricing (as against a regulated tariff) needs to be carefully considered in designing the structure of the market.
- 2. The form of contract for power transmission or large projects with potential E&S impacts needs to separate activities by responsibility, for more efficient execution: Specifically, for power transmission projects, route planning and the related ESIA need to provide for a waiting phase during which the Government would complete all necessary processes for registering lands and properties, complete any RAP compensations, and issue all necessary permits. Under this scenario, the contractor would remain in standby during this "permitting period" without incurring any costs, until this phase is completed. This approach was utilized for ESRFRP-funded contracts for the Jvari-Tskaltubo 500 kV transmission line construction, as well as for the KfW-funded transmission line, and appeared to be successfully avoiding the typical complications that could arise.
- 3. While quality and cost considerations are important, it is important not to lose sight of the fact that contractor capabilities constitute an important criterion: This is especially true with respect to E&S issues and also with respect to supervision contracts needing more careful consideration of procurement which would apply to most large transmission projects. In this

regard, adherence to pre-qualification under the Bank's procurement guidelines is a key factor to consider for large transmission projects.

13. Assessment Recommended?

No

14. Comments on Quality of ICR

The ICR is generally clearly written, concise and candid. The theory of change is outlined in a detailed diagram, though a discussion of its underpinning assumptions would have been helpful. The achievement of objectives is adequately analyzed, and the project's efficiency is outlined in a fair degree of detail. However, the discussion on the performance of the Bank, particularly of quality at entry, would have benefited from a fuller discussion of such issues as the adequacy of the project's components for achieving the project's objectives, the capacity of the implementing agency and lessons learned in prior operations that informed the project's design. There is also inconsistency in the outcome rating in the main text (Moderately Satisfactory) and ICR data sheet (Satisfactory).

 a. Quality of ICR Rating Substantial