Economic Cost-Benefit Analysis of Nenskra Hydropower Project: Summary Report

Report to IFC

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Executive Summary

Government of Georgia (the Government) has signed a contract with K-Water for supply of energy from the 280MW Nenskra River Hydropower Project (the Nenskra Project). This will provide an indigenous, renewable source of power and reduce dependence on imports from neighboring countries. The Government has engaged IFC as transaction advisor. IFC has commissioned Castalia to perform a cost-benefit analysis of the Project.

Our analysis shows that the project is cost benefit justified. The negotiated tariff in the power purchase agreement (PPA) in real terms in 2019 is US$79.75/MWh, which is US$5.48/MWh less than estimates of the long run marginal cost of power in Georgia in 2019 prices.[1] The tariff is also lower than the price Georgia pays to import power in winter months from neighbors, including Russia.

The Nenskra project will also benefit Georgia by increasing net downstream power by 1,922,000MWh across the life of the Project because of the additional storage that the Project will build. Georgia will also benefit because tax payments to the Government will be higher because the Project will pay corporate income tax, withholding tax, and land taxes to the Government. The Government does not receive income tax revenues from power generated by companies in neighboring countries that export power into Georgia.

As Table 0.1 shows, the net effect of this is quantifiable net benefits of **US$136 million** in Present Value terms. This does not include the non-quantifiable benefits of increased energy independence in a region in which control of energy flows has been used as a tool of geopolitical influence.

[1] To estimate 2019 prices, we assumed an annual inflation rate of 3 percent per year and inflated 2015 estimates from the World Bank. For consistency, we used the same inflation estimates applied in the Project's financial model which we found reasonable.

Table 0.1: Cost Benefit Analysis Results (US$ millions)

Costs and Benefits	Present Value Without Project	Present Value With Project	Present Value of Cost Savings (Incremental Costs)
Cost of power - Summer	$387	$362	($25)
Cost of power - Winter	$345	$315	($30)
Total Costs	**$733**	**$678**	**($55)**
Net additional power	-	$31	$31
Tax benefits to the Government	-	$50	$50
Total Benefits	-	**$81**	**$81**
NPV of Net Economic Benefits			**$136**

Note: NPV calculated at a Social Discount Rate of 9 percent. All figures rounded to the nearest million. Negative net-costs are equal to savings.

A sensitivity analysis indicates that the Project's returns are most sensitive to changes in the import price of energy from neighboring countries (i.e. Russia). An average decrease in the price of electricity imports from Russia of 22.13 percent would make the project create net costs for Georgia in present value terms.

1 Introduction

The Government of the Republic of Georgia (the Government) wants to decrease its dependence on imports of power from neighboring countries, including Russia, during winter months. Government intends to utilize its hydropower potential to help achieve this goal. It has made progress towards energy independence by entering into a Joint Venture (JV) with K-Water of Korea to develop the 280 megawatt (MW) Nenskra River Hydropower Project (Nenskra HPP or the Project).

The Government engaged International Finance Corporation (IFC) to serve as advisor for the development of the Nenskra HPP. Under the proposed transaction structure, K-Water and the Partnership Fund will establish a project company (JSC Nenskra), which will finance the Project, build, operate, and transfer (BOT) the hydropower plant to the Government. IFC hired Castalia to conduct an economic Cost-Benefit Analysis (CBA) of the Project.

This report presents the results of the Cost-Benefit Analysis and details the methodology we applied to conduct this analysis. We have organized the report as follows:

- Section 2 provides an overview of the Project and the rationale for developing it
- Section 3 presents the results of the CBA and our calculations
- Section 4 presents the results of a sensitivity analysis on the CBA.

2 Nenskra Hydropower Project Overview

The Nenskra Hydropower Project (the Project or Nenskra HPP) is a planned 280 megawatt (MW) hydropower facility located in the Samegrelo-Zemo Svaneti District of the Republic of Georgia. The Project will dam the Nenskra river and be operated year around. See Figure 2.1 for the Project's location.

Figure 2.1: Nenskra HPP Location

Source: JSC Nenskra Hydropower Project. http://www.nenskrahydro.ge/en

2.1 Project Timeline and Status

The Government began preparing the Project in 2009—completing the pre-feasibility study in March 2010 and the feasibility study in 2011. The environmental and social impact assessment (ESIA) started in 2011 with the final version submitted to the Government in 2015 by Gemma consulting. Government awarded the Project its environmental permit in October 2015. Since, the Government has requested a supplementary environmental and social impact analysis which it expects to disclose in mid-2017.

JSC Nenskra selected Salini Impregilo as the engineering, procurement, and construction (EPC) contractor following a competitive procurement. Early construction of the Project has started, including topographical surveys, geotechnical surveys, rehabilitation of access roads, construction of workers camps and technical installations.

Once complete, the Project will consist of a 135 meters high dam on the Nenskra River and three 93.3MW turbines. It will also include a 12.5-kilometer transfer tunnel to divert water from the Nakra River to the Project's reservoir. The reservoir will store several months' supply of water. K-Water plans to run the plant during the day only to maintain a minimum storage capacity of a several months. The Government expects construction to take 5 years and that the Project will be operational in 2021.

2.2 Project Financial Structure

The Government and K-Water are developing the Project as a Joint Venture. The Government, through the state-owned JSC Partnership Fund, is an equity holder in project-company JSC Nenskra. JSC Nenskra will operate, and transfer (BOT) the Project to the Government at the end of the 36-year concession period. IFC is serving as the Government of Georgia's transaction advisor.

The total capital cost of the Project is US$801 million including development costs. Total costs including financing are US$1,040 million. The cost will be financed by 30 percent equity and 70 percent debt. In addition to K-Water and The Government's equity commitments, the Project has secured debt financing from Korea Exim Bank, Asian Development Bank, European Investment Bank (EIB), SACE, and European Bank for Reconstruction and Development (EBRD) which is also providing an equity loan.

The Project will sell electricity to the Electricity System Commercial Operator (ESCO) under a 36-year power purchase agreement (PPA). The tariff under the PPA in real terms (2019 US$) is US$79.75/MWh; n 2020, when operations begin, the nominal tariff is US$82.15/MWh[2]. The PPA escalates the tariff by 3 percent each year for the first 13 years; the tariff is then flat in nominal terms for the remaining 23 years.

2.3 Project Rationale

The Project is expected to improve Georgia's energy security and create net benefits for the people of Georgia. It will accomplish this by:

- Providing power at a price lower than World Bank estimates of the long-run marginal cost of power in Georgia
- Reducing the seasonal supply gap
- Reducing the long-term power supply gap
- Decreasing reliance on electricity imports.

An explanation of each of these reasons follows below.

2.3.1 Providing low price clean power

The World Bank estimates that the long-run marginal cost of power in Georgia will be roughly US$78 per MWh in real terms in 2016 US$.[3] Assuming an average annual inflation rate of 3 percent, this equals US$85.23/MWh in 2019. This is US$5.48 less than the tariff Georgia will pay to the project in real terms.

2.3.2 Closing the seasonal electricity supply gap

Georgia has an energy supply gap. In the summer months, the country's generators produce more energy than the country demands. In the winter, Georgia cannot supply all the energy that the country needs. Currently, Georgia covers this supply gap by importing electricity from neighbors, including Russia. Figure 2.2 shows supply and demand for 2016.

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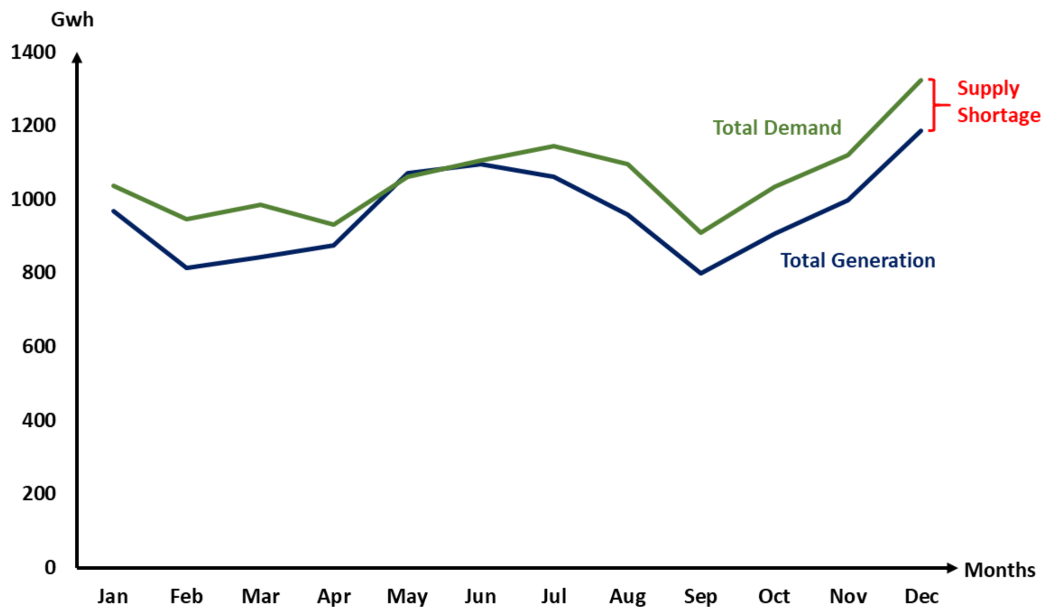
[2] This corresponds to the most conservative Scenario (#9 in Schedule 3 of the Implementation Agreement), which assumes that the entire contingency will be used (no savings, relative to Projected Total Project Costs).

[3] The World Bank (June, 2016). Georgia Power Sector Policy Note

Figure 2.2: Seasonal Power Deficits in Georgia—2016



Source: Castalia; ESCO

Notes: Winter production is from October to April and summer production is from May to September

Adding the Project to Georgia's generation mix will partly address this gap. For one, building Nenskra HPP increases Georgia's domestic generation capacity by an average of 12 percent across the year.[4]

Secondly, its storage capacity enables additional energy generation downstream from the Enguri dam for no additional cost. Stucky Caucasus[5] estimates that the Project will enable Enguri to generate additional energy equal to 20 percent of Nenskra's outputs during the winter months.

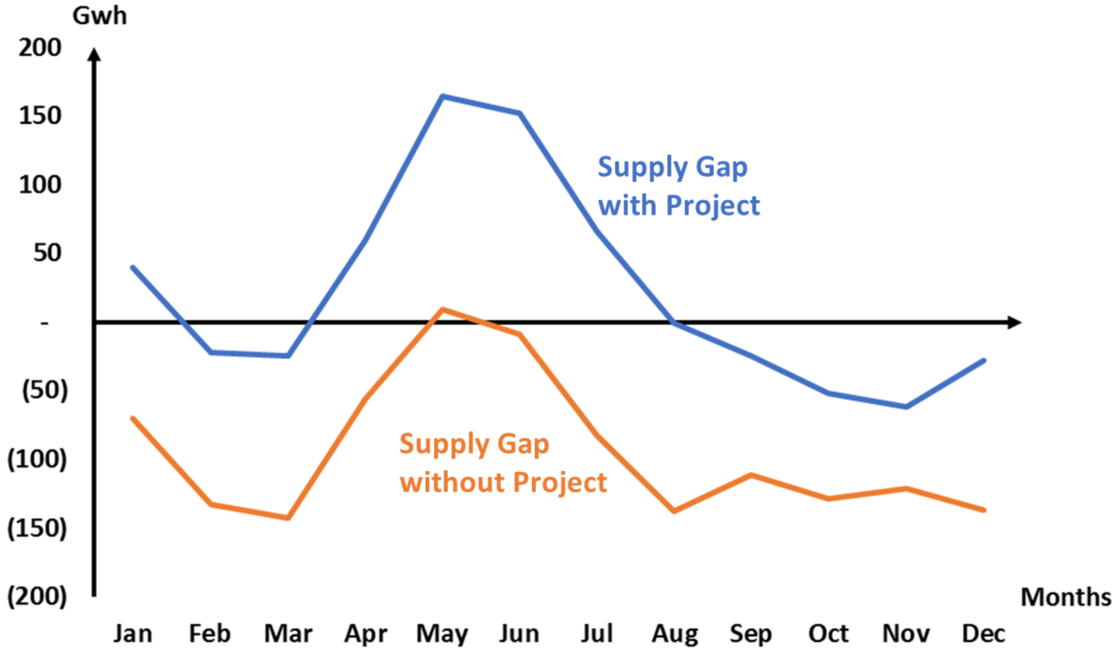
Figure 2.3 compares the supply gap with, and without, the Project. The calculations for the graph use 2016 demand and generation data from ESCO and generation data from the Project's financial model.[6]

[4] Based on ESCO's 2016 energy balance data.

[5] Stucky Caucasus conducted the Economic and Financial Analysis for the Proejct's Phase I Feasibility Study in May 2011.

[6] Project financial model dated 9 June 2017.

Figure 2.3: Supply Gap With and Without Nenskra



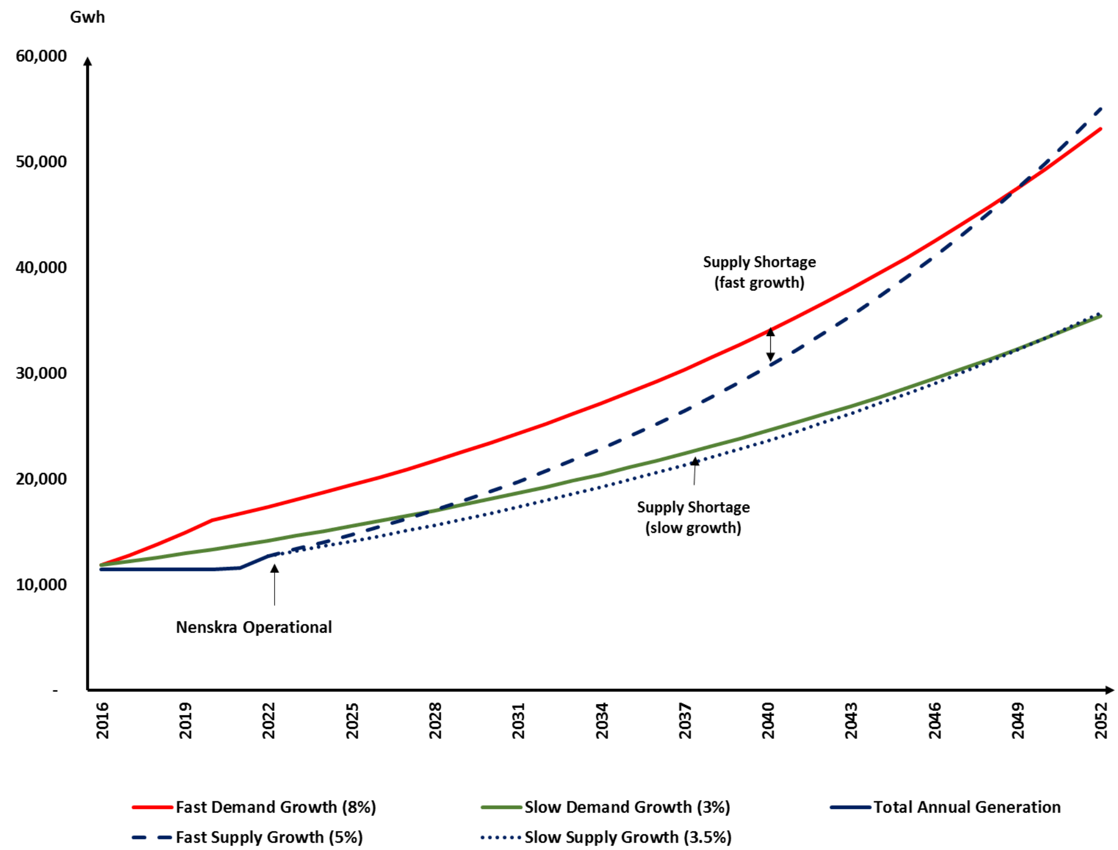
Source: Castalia; ESCO

2.3.3 Reducing the long-term supply gap

Georgia's demand for electricity is growing faster than it can add new capacity to the national grid. Completing the Project is one step The Government is taking to reduce the country's long-term capacity needs. Figure 2.4 shows forecasts for two scenarios of electricity supplied and electricity demanded in Georgia. The scenarios assume:

- Fast growth: demand grows by 8 percent per year, and supply grows by 5 percent per year
- Slow growth: demand grows by 3 percent per year, and supply grows by 3.5 percent per year.

Figure 2.4: Long-term Demand and Supply Forecasts for Georgia



Sources: Castalia; ESCO; ECA

In both scenarios, Georgia will need to build more capacity to fully meet demand. Even in the slow growth scenario—where the rate of supply growth exceeds the rate of demand growth—Georgia would not close its supply gap until 2048. Nenskra's contribution to closing this gap is significant, but clearly will not be enough.

2.3.4 Reducing reliance on electricity imports from neighbors

Georgia depends on electricity supply from neighbors in the winter, including—in particular—Russia. This creates significant political and strategic risk for Georgia. The 2008 conflicts in Abkhazia and South Ossetia show how Russia's pursuit of strategic goals with its military infringes on Georgia's sovereignty. Georgia accepted a Russian military presence in these regions at the end of the 2008 war.

Russia may have been able to force Georgia to accept other unfavorable terms had it shut off the flow of electricity in winter months, or even if it had simply threatened to do so. Either approach would cost Russia much less than military action and is a real risk to Georgia.[7] Considering that Georgia imports 9.8 percent of its total power from Russia during the winter,

[7] In 2006 Russia threatened to cut off gas supplies into Belarus and Georgia unless the countries accepted a price increase of more than 100 percent. Buckley, Neil, and Arkady Ostrovsky. "Gas Dispute Threatens Belarus, Georgia." *Financial Times*. Financial Times, 13 Dec. 2006. Web. 18 May 2017. See: https://www.ft.com/content/92fee430-8ae2-11db-8940-0000779e2340

bringing the Project's production into Georgia's national grid will reduce the amount of electricity supply that is at risk by almost 10 percent.

3 Cost-Benefit Analysis

A Cost-Benefit Analysis (CBA) determines the economic viability of a project. A project is economically viable if:

- It generates net economic benefits with a positive Net Present Value (NPV), and
- The Economic Internal Rate of Return (EIRR) exceeds the social discount rate.[8]

Net benefits are the incremental economic benefits resulting from a project less the incremental economic costs. To calculate the net benefits, we applied two scenarios:

- **'Without Project'** is the counterfactual, or the business-as-usual case. In this scenario, the Government continues to import power from Russia during the winter months and buy power from Georgian power companies during summer months. The amount of electricity purchased from Russia in this scenario is equivalent to the winter outputs of the Project. We assume that Georgia continues to be able to generate enough electricity to meet demand during the summer months
- **'With Project'** assumes that the Project is developed and sells 100% of its outputs to ESCO at the tariff specified in the PPA (US$79.75/MWh in real terms in 2019 US$). In the winter months, we assume the Project replaces the equivalent amount of imports of Russian electricity.[9]

3.1 Results of the Analysis

We calculated the net benefits for the Project to Georgia and globally. We present:

- The results for Georgia in Section 3.1.1
- The global results in Section 3.1.2.

3.1.1 Results for Georgia

Our analysis shows that the Project creates net-benefits for Georgia in present value terms of approximately **US$136 million** in present value terms. The project meets criteria set out by the Asian Development Bank for determining that a project is economically justified.[10] We were not able to estimate an economic internal rate of return for the project (EIRR).

Approach to the Calculations

We developed an economic model to quantify the costs and benefits, which we used to estimate the NPV of net economic benefits. The costs of the Project in the With Project scenario are:

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8 The Asian Development Bank recommends a social discount rate of 9 percent. *Guidelines for the Economic Analysis of Projects*. Asian Development Bank. 2017

9 To price alternatives, we have chosen the Long-Run Marginal Cost of gas fired generation in Georgia. This cost is higher than the current average cost of power because Georgia will have exhausted its least-cost generation sources and will need to add more expensive firm capacity to the grid. **See:** The World Bank (June, 2016). Georgia Power Sector Policy Note

10 See footnote 8.

- The cost Georgia pay for the power from the Project[11]
- The reduction in summer energy generation at Enguri caused by the Project.

We calculated the incremental costs of the Project next. The incremental costs are the difference between the price of power from the Project and the price of power imported from Russia.

In the case of the Project, we included the following benefits calculations in our model:

- Additional downstream winter generation from the Enguri dam, which is 33 kilometers downstream from the Project
- The tax benefits to the Government of Georgia paid by the Project to the Government based on a corporate income tax rate of 15 percent, land tax, and withholding taxes.

We estimated the lifetime costs, calculated on a monthly basis, for each of the cost and benefit items under both the 'With Project' and 'Without Project' scenarios. We then calculated the difference between the two scenarios. These calculations required inputs from the Project financial model and economic studies, in addition to our own assumptions about the economic impact of the Project. Table 3.1 details the results of our calculations.

Table 3.1: Cost Benefit Analysis Results to Georgia (US$ millions)

Costs and Benefits	Present Value Without Project	Present Value With Project	Present Value of Cost Savings (Incremental Costs)
Cost of power - Summer	$387	$362	($25)
Cost of power - Winter	$345	$315	($30)
Total Costs	**$733**	**$678**	**($55)**
Net additional power	-	$31	$31
Tax benefits to the Government	-	$50	$50
Total Benefits	-	**$81**	**$81**
NPV of Net Economic Benefits			**$136**

Note: NPV calculated at a Social Discount Rate of 9 percent. All figures rounded to the nearest million.

Negative net-costs are equal to savings.

There are other costs and benefits that we have not calculated. These include the economic multiplier effects—backward linkages—that the Project will have on the Georgian economy. The Project will benefit labor and local industry by temporarily increasing employment in

[11] Calculated as the total generation times the tariff. We have not included capital and operating costs of the Project as individual line items because the tariff was calculated to cover these costs. Including them in the calculations would therefore result in double counting.

construction and demand for construction services. Domestic industries that generate Project inputs, like concrete and steel, will also benefit from the Project's development.

We have not calculated these benefits because the project is cost-benefit justified without the additional benefits.

3.1.2 Global results

The Project generates further benefits when we include avoided greenhouse gas (GHG) emissions resulting from the Project. Including these benefits results in net economic benefits of **US$162 million** in present value terms for the Project globally. Table 3.2 details the results of our calculations.

Table 3.2: Cost Benefit Analysis Results to Georgia (US$ millions)

Costs and Benefits	Present Value Without Project	Present Value With Project	Present Value of Cost Savings (Incremental Costs)
Cost of power - Summer	$387	$362	($25)
Cost of power - Winter	$345	$315	($30)
Total Costs	**$733**	**$678**	**($55)**
Net additional power	-	$31	$31
Tax benefits to the Government	-	$50	$50
Benefits of avoided GHG emissions	-	$26	$26
Total Benefits	-	**$107**	**$107**
NPV of Net Economic Benefits			**$162**

Note: NPV calculated at a Social Discount Rate of 9 percent. All figures rounded to the nearest million. Negative net-costs are equal to savings.

Our approach to the calculations for global benefits was the same as the approach to calculate benefits to Georgia. The calculation of global benefits includes all of the costs and benefits of the calculations for Georgia, with the addition of the benefits of avoided GHG emissions (highlighted in green in Table 3.2).

3.2 Cost Calculations

Generally, the Project saves costs for the Government and for the people of Georgia. This represents benefits for Georgia. Power from Nenskra costs US$79.75/MWh in real terms, which is approximately US$5.48/MWh less than estimates of the long-run marginal cost of gas power[12] in Georgia, and approximately US$7 less than the price of imported power from

[12] Gas power is assumed to be the least-cost alternative to power in Georgia.

Russia inflated to 2019 prices. Over the life of the project, the cost of Nenskra's outputs will be **US$55.21** million less than alternative power sources in present value terms.

Price of power

The World Bank estimates that the average price of imports of electricity from Russia during the winter months is US$80/MWh in 2015 US$—inflated to 2019, the price would be more than US$87/MWh.[13] The price that ESCO will pay for power from the Project is US$79.75/MWh in real terms in 2019.[14] This means that the Project would save Georgia at least US$7/MWh if the price of power from Russia stays the same in real terms in 2019.[15]

All else equal, the Project will likely be one of the cheaper power sources in Georgia. We compared the Project's tariff to the estimated long-run marginal cost (LRMC) of the natural gas fired generation in Georgia, which is assumed to be the next-best least-cost alternative. The World Bank estimates the LRMC of natural gas in Georgia to be US$78/MWh in 2015 US$. Inflated to 2019, this price would be more than US$85/MWh, which is at least US$5/MWh more than the Project's tariff.[16]

We have not built volatility in gas prices into our assumption about Russian electricity imports into our base case scenario. We deal with this in our sensitivity analysis.

3.3 Benefits Calculations

The Project will benefit the people of Georgia directly. We calculated the direct effects of:

- Growth in downstream power generation
- Taxes to the Government of Georgia
- Global savings from avoided GHG emissions.

3.3.1 Increased power generation downstream

The Project will enable the downstream Enguri dam to increase its net yearly generation because of the Project's additional storage. The Georgian Railway has indicated that it would purchase this additional power, and has agreed to buy it for US$62.20 per MWh.

Stucky Caucasus[17] estimates that the Project will allow Enguri to generate additional electricity equivalent to 20 percent of the Project's outputs during the winter months.[18] In summer, the Project will reduce Enguri's generation by an average of 65GWh per summer season. By increasing yearly output at Enguri, the Project will create direct benefits for Georgia's economy of **US$31 million** in present value terms.

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13 The World Bank (June, 2016). Georgia Power Sector Policy Note.

14 Project financial model dated 9 June 2017.

15 To make this calculation, we inflated the average price of imports from Russia in 2015 US$ to 2019 prices using an average annual inflation rate of 3 percent. To be consistent, we applied the inflation rate used by the Project's financial model, which we found to be reasonable.

16 See footnote 9.

17 Stucky Caucasus conducted the Economic and Financial Analysis for the Proejct's Phase I Feasibility Study in May 2011.

18 "Nenskra Hydropower Project – Final Phase I Feasibility Study Economic and Financial Analysis". May 2011. Stucky Caucasus.

We calculated the value of the additional value by multiplying the tariff Georgia Railway will pay by the total additional power generated on a MWh basis across the Project's lifetime. Table 3.3 shows the inputs and output of these calculations.

Table 3.3: Additional Power Generation at Enguri dam

	Additional Lifetime Power (MWh)	Cost per MWh (US$)	Present Value of Additional Power (US$ millions)
(+) Additional winter power	4,327,400	$62.20	$67
(-) Summer power losses	2,405,000		$36
Total	**1,922,400**		**$31**

Note: NPV calculated at a Social Discount Rate of 9 percent. All figures rounded to the nearest million.

3.3.2 Tax benefits to the Government

The Nenskra Project will generate direct benefits in present value terms to Georgia by paying taxes to the Government of **US$50 million**, or approximately US$1.06/MWh sold. The Government can use this money to pay for programs and infrastructure that will benefit Georgian people.

Table 3.4: Taxes Paid to the Government (US$ millions)

Tax Item	Total in Present Value Terms (US$ millions)
Income Tax	$36
Withholding Tax	$9
Land Tax	$5
Total Taxes	**$50**

Note: NPV calculated at a Social Discount Rate of 9 percent. All figures rounded to the nearest million.

The Project creates these benefits when it purchases power from Nenskra because consumers pay a price which includes the tax that the Government then gets back. On the other hand, when ESCO purchases power from Russia, consumers still pay for power, which goes to generation companies in neighboring countries. These companies may pay taxes in their home country, but none of this money comes back to Georgia.

The Project financial model[19] calculates the total taxes to be paid by the Project to the Government. The model applies a corporate income tax rate of 15 percent to these

[19] Project Financial Model dated 9 June 2017.

calculations. It should be noted that there is a risk that the taxes are engineered, and that the Government will not receive this amount.

3.3.3 Savings from avoided CO_2 emissions

The Project creates savings in the form of avoided greenhouse gas emissions against the Without project scenario. In present value terms, the Project will save the global environment **US$26 million** in avoided CO_2 emissions. To calculate these savings, we multiplied the emissions factors for Russia's electricity grid and for large hydropower projects[20] by the amount of power generated by Nenskra during winter months. We took the difference of these products which we multiplied by the cost of damage done by emitting an additional ton of CO_2 into the atmosphere.[21]

Table 3.5: CO_2 Emissions Factors (ton per GWh)

Factor	Tons CO_2 Emitted per MWh
Russia national grid	538
Large hydropower projects	200

Source: EBRD; IEA

We applied annual price per ton estimates developed by the Government of the U.K. The prices escalate across the life of the project. The price per ton of CO_2 in 2016 is US$44.84 per ton. By 2058, the Government of the U.K. estimates that the cost of adding an additional ton of CO_2 to the atmosphere will be greater than US$87 dollars. We have not estimated effects of how changes in the amount of forested land may influence emissions factors.

[20] *Electricity Emission Factors Review*. European Bank for Reconstruction and Development. November 2009. See: http://www.ebrd.com/downloads/about/sustainability/cef.pdf

[21] *The Social Cost of Carbon And The Shadow Price Of Carbon: What They Are, And How To Use Them In Economic Appraisal In The UK*. Government of the U.K. Department for Environment, Food, and Rural Affairs. December 2007. See: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/243825/background.pdf

4 Sensitivity Analysis

We tested the sensitivity of the Project's economic returns to changes in four key variables. The changes tested follow:

- Percent change in the price of imported Russian electricity
- Percent change in the amount of taxes collected
- Percent change in net power gains at Enguri.

We applied the sensitivity changes uniformly across 'With Project' and 'Without Project' Scenarios. Our analysis finds that the Project is most sensitive to changes in the price of power imports from Russia.

4.1 Sensitivity Analysis Results

We conducted the analysis of the Project's robustness against changes in each variable independently. Generally, the Project's economics are resilient to changes in key cost and benefit factors. The following sections present the outcomes of these tests.

4.1.1 Change in the price of imported Russian electricity

The Project is most sensitive to changes in the price of imported Russian electricity. We estimate that a **22.13 percent decrease** in the price of Russian electricity will result in the Project breaking even in economic terms. This equates to a decrease in the price paid of US$17.70/MWh below the current price of US$80/MWh.

Table 4.1: Percent Change in Price of Russian Electricity

Percent Change in Tax Revenue	NPV of Benefits to Georgia (US$)
-25.0%	($15,131,791)
-22.13%	$0
-15.0%	$40,130,353
-5.0%	$102,300,265
0.0%	$135,975,634
5.0%	$171,377,945
15.0%	$247,363,393
25.0%	$330,256,609

4.1.2 Changes in taxes collected

For the base case, we assumed that the Project's financial model accurately reflects the Project's cash flows and pre-tax earnings. The model uses a corporate income tax rate of 15 percent. We tested the Project's sensitivity to changes in the taxes collected uniformly across each period. This means that when we assume that Government collects 5 percent fewer taxes across the Project's life, that every income tax payment or refund decreases by 5. Table 4.2 lists the outcome of this analysis.

Table 4.2: Sensitivity to Changes in Taxes Collected

Percent Change in Tax Revenue Collected	NPV of Benefits to Georgia (US$)
-25.0%	$123,502,555
-15.0%	$128,491,787
-5.0%	$133,481,018
0%	$135,975,634
5.0%	$138,470,250
15.0%	$143,459,482
25.0%	$148,448,713

We do not expect the Government to raise or lower income tax rates by these amounts. Instead, we have modeled changes in the tax collected to capture the Project's sensitivity to changes in revenues or costs, all else equal. For instance, if the amount of revenue decreases while costs remain the same, the Project's pre-tax earnings will decrease as will the income tax liability. Similarly, if the Project's costs increase while revenue remains the same, pre-tax earnings and tax liability will decrease.

4.1.3 Change in net downstream power gains in at Enguri

The project creates net downstream power gains. The technical consultants[22] assume that the Project's storage enables Enguri to add 20 percent to the Project's total generation in winter months. The base case assumes that the Project creates losses equal to 65 GWh spread across the summer months. Table 4.3 details the Project's sensitivity to changes in power generated at Enguri.

Table 4.3: Sensitivity to Changes in Downstream Power Generated—Winter

Percent Change in Downstream Gains	NPV of Benefits to Georgia (US$)
-25.0%	$128,257,829
-15.0%	$131,344,951
-5.0%	$134,432,073
0.0%	$135,975,634
5.0%	$137,519,195
15.0%	$140,606,317
25.0%	$143,693,439

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