

Document  
of Anti-Crisis Fund  
EurAsEC  
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Eurasian Development Bank  
Resources Manager of EurAsEC Anti-Crisis Fund

**APPRAISAL REPORT**

on Preliminary Application

of Kyrgyz Republic

for Investment Loan

to be provided by the EurAsEC Anti-Crisis Fund for the project  
“Start-up of Second Generator Unit of Kambarata HPP-2”

in the amount of US\$ 80 million

June 2014

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**Kyrgyz Republic**  
Fiscal year: 1 January –31 December

**National currency exchange rate**  
as of 01/06/2014

Currency	KGS
1 RUB	1.5048
1 KZT	0.2849
1 US\$	52.2705
1 EUR	71.1297

**Acronyms and Abbreviations**

ACF, Fund -	Anti-Crisis Fund of the Eurasian Economic Community
CIS -	Commonwealth of Independent States
EDB, Manager -	Eurasian Development Bank
EurAsEC –	Eurasian Economic Community
FS, FR -	Feasibility Study, Feasibility Report
GDP -	gross domestic product
GNI -	gross national income per capita
IFI -	International Financial Institutions
KR -	Kyrgyz Republic

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## Table of Contents

<b>1. KEY INDICATIVE PARAMETERS OF LOAN RECOMMENDED BY MANAGER .....</b>	<b>4</b>
<b>2. MANAGER'S APPRAISAL OF PRELIMINARY APPLICATION .....</b>	<b>6</b>
<b>3.1. Social and Economic Status of Kyrgyz Republic .....</b>	<b>8</b>
<b>3.2. Energy Sector of Kyrgyz Republic .....</b>	<b>12</b>
<b>3.3. Foreign Economic Relations of Kyrgyz Republic with Member States of Anti-Crisis Fund.....</b>	<b>15</b>
<b>3.4. Project Description.....</b>	<b>16</b>
<b>3.5. Current Status of Project .....</b>	<b>17</b>
<b>3.6. Project Funding Requirements.....</b>	<b>18</b>
<b>3.7. Expected Economic Benefits of Project.....</b>	<b>18</b>
<b>3.8. Project Compliance with EFSD Objectives.....</b>	<b>19</b>
<b>3.9. Project Funding Scheme.....</b>	<b>19</b>
<b>3.10. Government Support .....</b>	<b>20</b>
<b>3.11. Preliminary Risk Assessment.....</b>	<b>21</b>
<b>Appendix 1: Matrix of Project Compliance with ACF Mission Objectives.....</b>	<b>22</b>
<b>Appendix 2: Application of the Kyrgyz Republic for ACF Investment Loan.....</b>	<b>23</b>
<b>Appendix 3: Location and Schematic Layout of Kambarata HPP-2.....</b>	<b>26</b>
<b>Appendix 4: Key Economic Performance Indicators of Kyrgyz Republic.....</b>	<b>27</b>

## 1. KEY INDICATIVE PARAMETERS OF LOAN RECOMMENDED BY MANAGER

Borrower	Kyrgyz Republic
Implementation Agency/Organization	Ministry of Finance of Kyrgyz Republic
Project company	OAO “Electric Power Plants”
Sector	Electric Power Engineering (Hydropower)
Amount and terms of financing	<ul style="list-style-type: none"> <li>• Project total cost: US\$ 100 million (to be updated after preparation of the Project detailed business plan)</li> <li>• Requested amount of ACF funding (loan): US\$ 80 million (to be updated after final determination of the total cost of the Project)</li> <li>• Cofinancing contribution by the Borrower: US\$ 20 million - 20.0% of the total cost of the Project (final amount of co-financing to be determined after updating of the total cost of the Project)</li> <li>• Currency of funding - US dollars</li> <li>• Interest rate: 1.00% per annum</li> <li>• Risk premium: amount to be determined following preparation of the detailed business plan</li> <li>• Front-end fee: 0.625% of loan amount</li> <li>• Loan maturity, including grace period: 20 years</li> <li>• Grace period for principal repayment: 8 years</li> <li>• Grace period for interest repayment: n/a</li> <li>• Repayment of the principal is performed every six months in equal installments</li> <li>• Grant-element of the ACF loan: 38.92%.</li> </ul>
Type of transaction	Investment Loan
Main Objectives	<ul style="list-style-type: none"> <li>• Alleviating winter shortage of electricity supply in the country;</li> <li>• Enhancing reliability and ensure stable supply to power consumers;</li> <li>• Launching the power compensation facility for electricity generated by the Toktogul cascade and exported to Kazakhstan and other countries;</li> <li>• Consolidating the foreign trade balance by increasing electricity exports to the neighboring EDB member state under an intergovernmental agreement and eliminating power shortages in southern regions of Kazakhstan and other countries;</li> <li>• Enlarging capacity for settling issues regarding the use of water-power resources in the Aral Sea basin.</li> </ul>
Key performance indicators	<ul style="list-style-type: none"> <li>• Possibility of additional accumulation of water in the Toktogul reservoir in winter in amounts of up to 1.4 billion m<sup>3</sup>;</li> <li>• Increase in volumes of energy generation by the first and second units simultaneously up to 1.019 GWh, of which in the spring-</li> </ul>

	summer period - up to 0.864 GWh, and in the autumn-winter time - up to 0.155 GWh.
Principal risks and mitigation techniques	<p>The Project faces design, construction, social, environmental and marketing risks.</p> <p>To reduce the risks, the Manager recommends carrying out survey works and research in cooperation with a renowned international consultant, specializing in this area, to be engaged on a competitive basis; and based on the results of the survey and studies, prepare an updated business plan/feasibility report for the Project.</p>

## 2. MANAGER'S APPRAISAL OF PRELIMINARY APPLICATION

This Appraisal is presented on the basis of evaluation of the preliminary application of the Kyrgyz Republic (hereinafter - the Applicant) for an ACF investment loan (hereinafter - the Loan) in the amount of US\$ 80 million<sup>1</sup> (hereinafter – the Application). The main declared purpose of the Loan is to provide financing for the project "Start-up of Second Generator Unit of Kambarata HPP-2" (hereinafter - the Project).

Section 2 of this document contains the rationale for the Appraisal of the preliminary application by the ACF Resources Manager's (hereinafter - the Manager).

Having examined the Application, the Manager requests the ACF Council to consider the following recommendations and the Appraisal conclusions:

1) *The Application conforms to the mission of the Fund, its funding objectives, lending policy and conditionality, as defined by the Treaty on the Establishment of the Fund, Statute of the Fund, the Regulation on ACF Investment Loans and relevant decisions of the ACF Council.*

2) *The Application is executed in full compliance with the requirements of the Fund.*

The depth of elaboration of the Application in terms of the required data for preliminary assessment purposes (initial evaluation of the Project), and the available supporting documentation to enable preliminary approval, are deemed satisfactory.

3) *The Project is consistent with the ACF mission objectives.*

The Project is an integral part of the Medium-Term Strategy for Development of the Electric Power Industry of the Kyrgyz Republic for 2012-2017<sup>2</sup>. Its implementation will contribute to improving energy security and independence of the Kyrgyz Republic, will increase the volume of power generation, reduce its shortage, and also decrease the water flow rate from the Toktogul reservoir in winter. The Project has a strong integration potential, because:

- it is contemplated that the equipment for the second power generator unit will be manufactured and supplied by the relevant Russian producers, while the power generated will be purchased by OAO "Electric Power Plants";
- the Project implementation will enable generation of surplus power, which can be supplied to the southern regions of the Republic of Kazakhstan and other countries, as well as will provide additional options for settlement of issues of uses of water and energy resources in the Aral Sea basin.

4) *The Manager has developed a Matrix of Project Compliance with the ACF objectives (Appendix 2 hereto), which shows compliance of the Project with 11 criteria in all the categories (anti-crisis, integration, sustainable development). Kyrgyz Republic has met all the requirements defined by the Treaty on the Establishment of the Fund, the Statute of the Fund and decisions of the ACF Council.*

Commitments to make a down payment in cash have been executed in full, and according to the information available to the Manager, there are no outstanding debt liabilities either to any of the Fund member countries, or to any of the major international financial institutions. By the date of the Fund Council approval of the Loan, all the relevant supporting letters will have been received. The level of debt sustainability of the Kyrgyz Republic enables us to make a positive conclusion about the financial solvency of the Borrower.

To date, the Kyrgyz Republic has an approved investment loan in the amount of US\$ 100 million for financing the project "Rehabilitation of Bishkek-Osh Road, Phase IV", as well as an investment loan for the project "Funding of Farming Machinery Supplies to the Kyrgyz Republic" in the amount of US\$ 20 million.

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<sup>1</sup> Letter of the Ministry of Finance of the Kyrgyz Republic dated 17 January 2014 Ref. # 16-2-2/504

<sup>2</sup> Resolution of the Government of the Kyrgyz Republic of 28 May 2012 # 330

The amount requested for the Project is within the country eligibility limit established for the Kyrgyz Republic (3% of the amount provided by the Anti-Crisis Fund of the Eurasian Economic Community<sup>3</sup> or US\$ 255.39 million). Given the fact that Russian companies (OAO “Institute Hydroproekt”, OAO NPO “Elsib”, etc.) are expected to be heavily involved in the project implementation process, it appears advisable to take advantage of the country limits ascribed in the ACF to the Russian Federation and the Kyrgyz Republic as follows: US\$ 50 million - from the limit of the Russian Federation, and US\$ 30 million - from that of the Kyrgyz Republic.

However, in line with the commonly accepted EDB investment project preparation practice, the Manager will need extra budget funds for preliminary evaluation and preparation of the Feasibility Report, drafting of the loan agreements and procurement operations for the Project in an amount up to US\$ 500,000. In case the Fund Council approves the Loan, the ACF resources spent on the preparatory work should be included into the principal of the Loan (as a front-end fee).

- 5) *As defined by the Agreement on Management of Fund Resources, the Manager will control procurement of goods, works and services funded by ACF loans in accordance with its in-house procurement policies and regulations, and ensure compliance therewith by making relevant provisions in ACF lending agreements with borrowers.*

For a more detailed study of the Project, identification of technical, economic and other aspects, which may affect its implementation, and are indispensable for the Bank to make a decision on its financing, an independent and relevant consultant will be required. Such consultant’s services and preparation of his/her report should be financed by the Fund as per para 4) hereof.

- 6) *Monitoring and evaluation of the Project will be carried out by the Manager in accordance with the guidelines for strategic monitoring and project evaluation, currently being developed by EDB*  
The above monitoring procedures will require continuous collection of data on Project implementation progress, Project risk assessment to be carried out by the Manager on an ongoing basis, regular field trips of the Manager’s officers to visit the Project sites.
- 7) *The Project will be implemented in accordance with the Project Cycle Regulation of the Manager with due regard to specific details provided by the Regulation on the Use of ACF Resources for Providing Investment Loans.*

The in-house policies of the Manager contain detailed procedures for project structuring, risk assessment and disbursement of funds. To enable disbursement of funds in tranches, the above procedures require submission to the Manager of all relevant supporting documents (e.g. agreements, proforma invoices and other paperwork).

- 8) *In the process of Project implementation, the Manager recommends relying on the Environmental and Social Safeguards Policy of EDB*

The EDB's Environmental and Social Safeguards Policy affords application of both national standards of the Project host country, and policies of international institutions, such as the World Bank, ADB. The choice of additional environmental and social safeguards policies for the Project should be made upon receipt of the detailed report of the consultant, drafted in accordance with the terms of reference, containing requirements as per Appendix 5 hereto.

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<sup>3</sup> Approved by the decision of the Council of the Anti-Crisis Fund of the Eurasian Economic Community (Minutes # 3 of 25.02.2010)

### 3. RATIONALE OF APPRAISAL

#### 3.1. Social and Economic Status of Kyrgyz Republic

The Kyrgyz Republic is a low-income country with a population of 5.6 million people and a gross national income (GNI) per capita at around US \$ 1,500<sup>4</sup>. The poverty level in the country in 2012 was 38%<sup>5</sup> (compared to 52% in 2000). Despite a reduction in the level of extreme poverty (from 17.8% to 4.4%<sup>6</sup>), its overall level in 2010-2012 demonstrated an upward trend. The low-income level, high poverty level and unemployment are conducive to generation of a significant flow of labor migrants: about one-third of the working-age population are looking for jobs to earn their living in neighboring countries, mainly in Russia and Kazakhstan.

The economic growth in the country for the entire period since its independence is characterized by high volatility. During the first five years (1991-1996), after the disintegration of the Soviet Union, as a result of economic disarray and transformation-induced recession, the national GDP shrank by almost 50%. Starting from 1996, the GDP growth began to recover. From 1996 to 2008, the GDP grew by an average of 6% per year<sup>7</sup>. The rate of economic growth in the Kyrgyz Republic is primarily contingent on the growth in the gold mining sector, which is about 8% of GDP and about 40% of the overall industrial output, as well as cash remittances of labor migrants from countries where they make money, which account for about 30% of GDP. On the demand side, growth was supported by the same cash remittances of labor migrants from Russia and Kazakhstan

In the context of the global financial crisis, the GDP growth in 2009 slowed down to 2.9%, compared to 8.4% in 2008<sup>8</sup>. During the 2008 crisis, the growth trend was extremely volatile, owing to the political crisis of 2010, and because of the significant decline in gold production in 2012 at the Kumtor Mine. The resumption of Kumtor's operations in 2013 led to a 10.5% increase in the GDP (amounting to US\$ 7.09 billion). The GDP growth volatility has a negative impact on domestic investment funding sources.

Kyrgyzstan largely depends on the external market environment owing to the large share of gold in the total volume of exports of goods and services (about 40%), and on the very much so on imports: imports of goods and services in recent years have reached 100% of GDP (see the Chart below). Fuels and food account for more than one-third of imports. The principal trading partners are Russia, China, and Kazakhstan.

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<sup>4</sup> According to calculations of the ACF, based on data of the Statistical Committee of the Kyrgyz Republic and the National Bank of the country.

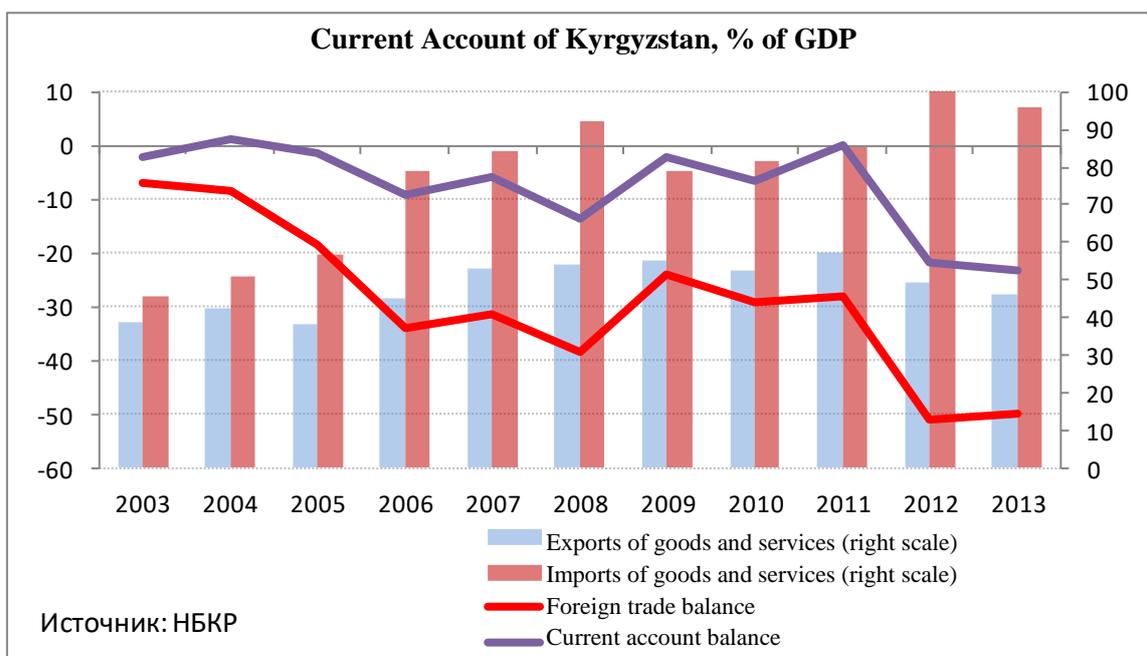
<sup>5</sup> According to the National Statistical Committee of the Kyrgyz Republic.

<sup>6</sup> Source: The Kyrgyz Statistical Committee

[http://stat.kg/index.php?option=com\\_content&task=view&id=45&Itemid=100](http://stat.kg/index.php?option=com_content&task=view&id=45&Itemid=100)

<sup>7</sup> The calculations did not factor in the data for 2002 and 2005; the negative growth rates of 0.02% and 0.2%, respectively, in those years were caused by an accident at the largest gold mine Kumtor in 2002, and by the political turmoil of 2005, which brought about a change of the government.

<sup>8</sup> The downturn in the growth was mainly due to a 7% drop in exports, a 30% decline in cash remittances and a 3% reduction of business in the retail banking sector



Narrow export base<sup>9</sup> and the high dependence of the Kyrgyz economy on imports are responsible for its strong reliance on the external markets and exposure to domestic production-related shocks, and constitute the main factors of generation of the significant foreign trade deficit. In the past 5 years, the deficit of the foreign trade balance amounted to about 39% of GDP with a manifest upward trend in 2012-2013 - to 55.1% of GDP and 49.8% of GDP, respectively. This was due to technological problems that materialized in 2012 in the gold mining sector, gold being the main export commodity, and due to the increase in global prices for some items of import in 2013. Moreover, the accelerated implementation of government-sponsored projects, funded by its development partners, served as an incentive for a significant influx of foreign direct investments. The inflow of current cash remittances offsets the negative foreign trade balance and payments of investment earnings by 75%. However, the current account deficit still remains high, on average in 2009-2013 equal to about 14% of GDP; 26% of GDP in 2012, and 23.1% of GDP in 2013.

The trends in global prices for energy resources and food are the key drivers of the price level in the country. The rate of inflation in Kyrgyzstan promptly stabilized at the beginning of 2000, as a result of the moderate monetary and fiscal policy. The high dependence on imports of food and energy resources, as well as the increase in prices for these items, boosted the inflation in 2007-2008 and 2010 up to 20% (compared to the average of 4.7% in all previous years). From 2000 to 2013, the average increase in consumer prices was 7.9% per year.

Kyrgyzstan is characterized by a chronic and volatile budget deficit, averaging in 2000-2011 at around 4% of GDP. At the same time, if in 2000-2005 the deficit exceeded 5.5% of GDP, as a result of consolidation, its value in 2006-2008 dropped to 0.8%. As a result, the national external debt was under control, while prior to 2009 it fluctuated within the range of 33-37% of the GDP. The impact of the global financial crisis in 2009 and the political turmoil in 2010, which required expansion of spending on social support for the population, resulted in an increase in the deficit in these years up to 3.6% of GDP and 6.3% of GDP, respectively. Moreover, the expenditures were increased in industries characterized by a high depreciation of fixed assets or poor condition of the infrastructure (in particular, power and roads sectors), which were financed primarily by foreign investors. External borrowings, the slowdown in GDP growth and weakening of the national

<sup>9</sup> Four commodities (gold, mineral products, metals, agricultural products) account for about 80% of total exports.

currency exchange rate led to a heavier external debt service burden, which rose to the level of 47.5% of GDP by the end of 2011. In 2012, an aggravation of the situation occurred, which was caused by the reduction in GDP, followed, as a result, by the diminished tax base. The situation improved somewhat after the debt had been written off pursuant to the relevant bilateral agreements with the Russian Federation, signed in 2012, and the ratio of the total external debt to GDP was equal to 83.3%, including to the public debt - 43.8%. Despite the high level of the external public debt, the repayment curve is subdued. The ratio of payments on the external public debt to the budget revenues is way lower than the threshold level: 3.7% in 2013, compared to 20%, respectively. According to the IMF, in the medium term this indicator will be at about 5%. The ratio of debt to the amount of export earnings and cash remittances of migrant workers is equal to about 110%, which, according to the IMF Guidelines, amounts to an average level of risk<sup>10</sup>.

The pending structural problems hinder the opportunities for economic growth. The trend toward a fall in the ranking of the Kyrgyz Republic in the Global Competitiveness Scale (World Economic Forum) in 2006-2012, when the country moved 17 steps down (127th out of 148 participants), changed only somewhat in 2013-2014, when it stepped into the 121st place<sup>11</sup>. Thus, it can be concluded that the Kyrgyz economy is in the first phase of development, and is characterized by a poor institutional and infrastructural environment. Quality of business environment is the only indicator out of the commonly known development reference indexes, which rates the Kyrgyz Republic in the midrange and not at the bottom amongst the CIS countries. At the same time, in recent years, the Kyrgyz Republic has been losing its position in the World Bank Doing Business ranking. Moreover, the quality performance of public institutions is low. Given all the ambiguity of ratings, their low values are still indicative of the lack of progress in the last decade. The poor rating of the business environment constitutes a serious constraint for the inflow of foreign investments and thus suppresses opportunities for diversification and modernization of the national economy.

The poor performance of the domestic production facilities compelled the economy to start refocusing toward growth, based on domestic demand, including on support by migrant workers' cash remittances. The high level of dependence on imports and cash remittances increases the risks for the balance of payments sustainability in the event of exposure to negative developments in the host countries for Kyrgyz migrant workforce (mainly the Russian Federation).

The increase in external labor migration also results in distortions of incentives in the domestic labor market. The incoming cash remittances more often than not significantly exceed the level of wages in the local economy, which leads to the degradation of incentives to work and puts constraints on wage increases. In general, in 2004 to 2013, the growth of wages in real terms exceeded GDP growth by a factor of 1.7. This is a factor that reduces competitiveness of the economy and puts additional pressure on the balance of payments.

To increase the economy's resilience to shocks and restore the trend towards poverty reduction in the context of natural growth of the population, it is extremely important to ensure creation of new jobs, especially in export-driven sectors. Despite the relatively high share of investments in fixed assets in the GDP structure (about 30% in 2012), about half of them end up in the mining sector and construction. These sectors are not adequately equipped to deal in principle with the problems of employment and resilience of the Kyrgyz economy to adverse developments. The investment capacity of the government is limited both by the need to ensure tight fiscal policies, and

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<sup>10</sup> The average risk ranges from 100 to 150%

<sup>11</sup> World Economic Forum, Klaus Schwab, Xavier Sala-i-Martin, "The Global Competitiveness Report 2013-2014", p.15 ([http://www3.weforum.org/docs/WEF\\_GlobalCompetitivenessReport\\_2013-14.pdf](http://www3.weforum.org/docs/WEF_GlobalCompetitivenessReport_2013-14.pdf)).

by its commitment to maintain the level of social spending. In 2013, the volume of budget investments was less than 1% of GDP. Besides, there is a significant requirement to provide funds for ensuring maintenance of the existing infrastructure, especially in the roads and energy sectors<sup>12</sup>.

The problem of the gap of funding the investments also stems from the limited capacity for raising capital from domestic sources, which is due to the inadequate condition of the financial market. The cost of borrowing in the domestic market for the private sector substantially exceeds the rate of inflation (given inflation of about 4%, the interest rates on national currency loans are about 20% per annum), the interest on foreign currency loans is also high - over 16% per annum, which keeps away private investment. Bottom line, the volume of loans issued by the banking system (net of mortgage and consumer loans), as well as lending of working capital to retail outlets, in 2013 accounted for about 7% of GDP<sup>13</sup>.

As is the case with most low-income countries, Kyrgyzstan, given its high investment requirements, is unable to provide adequate funds to finance them on its own.

One more factor holding up the development of Kyrgyzstan is its land-locked status, as well as predominantly mountainous terrain. It generates its high dependence on the condition of the road network infrastructure and constitutes a deterrent to the expansion of domestic and transboundary traffic flows. The southern and northern regions of the country are linked up by only one road (Bishkek-Osh), which passes across mountainous areas, and it creates problems for traffic in wintertime. According to the World Bank Logistics Performance Index, in 2012 Kyrgyzstan ranked 130th out of 155.

Increased economic security and sustainable economic growth can be achieved in the country through commercialization of the comparative advantages of Kyrgyzstan: its unique geographical location, improvements in the efficiency of traditional sectors, as well as building new points of economic growth in the context of Kyrgyzstan's plans to join the Customs Union<sup>14</sup>.

The current economic condition of the Kyrgyz Republic demonstrates its inability to provide financial support for large-scale investment projects by mobilizing its domestic resources, while the capacity to attract FDIs for these purposes is extremely limited.

The Project cannot be financed by the funds offered by commercial banks, due to the high cost of funding and the small amounts proposed as loans, as well as short terms of lending.

In view of the above, the proposed allocation of the ACF loan for financing installation of the second generator unit at Kambarata HPP-2 will help maintain the level of investments in the country's strategically important projects. Given the importance of ensuring power supply in winter, the start-up of the second turbine will contribute to enhancing energy independence of the economy and will alleviate regional tensions in regulation of water and energy control issues. Moreover, expansion of the power generation capacity will create opportunities for increasing agricultural production due to the potential emergence of additional small and medium-sized farming units, and will not only fully satisfy the domestic power supply needs, but will also open new prospects for exporting power surplus to Kazakhstan, Russia and other countries, which, to an extent, will contribute to GDP growth. A more specific estimate can be provided at a later stage of the Project development process.

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<sup>12</sup> As a result of the obsolescence and physical deterioration of the assets in 2014, Kyrgyzstan will for the first time experience a shortage of power supply, despite the availability of significant hydropower resources.

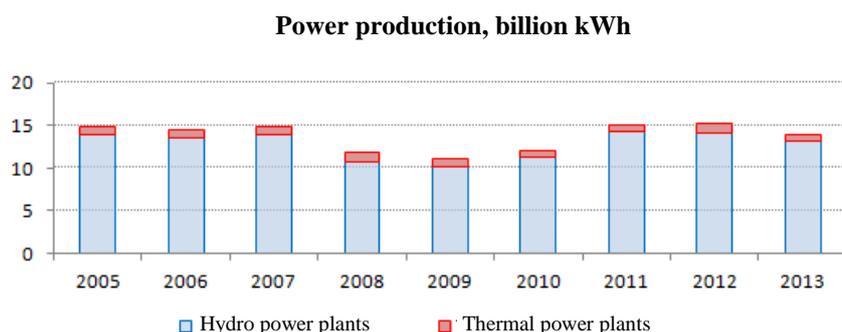
<sup>13</sup> According to calculations of the ACF, based on the data of the Statistical Committee and the National Bank of Kyrgyzstan.

<sup>14</sup> On 12 May 2014, the Government of Kyrgyzstan endorsed the "road map" for Kyrgyzstan's accession to the Customs Union.

The impact of the Loan on debt sustainability is estimated as negligible. According to the IMF, Kyrgyzstan has no problems in respect of external debt service. Provided Kumtor restores its business performance, and subject to continued conservative external borrowing policies, the budget and debt positions are rated as sustainable. Acceptance of the ACF loan in the amount of US\$ 80 million (less than 1.1 % of GDP in 2013) on the proposed terms and conditions will not increase significantly the total national debt service burden.

### 3.2. Energy Sector of Kyrgyz Republic

The energy sector is one of the most important in the national economy - it accounts for about 2.5% of GDP and 16.0% of its industrial production. The bulk of the currently available power



generation capacity (more than 95%) falls on hydropower facilities: an average of 14.7 billion kWh of electricity is generated annually, of which about 14 billion kWh is produced by hydropower plants. Access to electricity consumption is provided to

98% of the population of Kyrgyzstan. The sector employs more than 15% of those working in the production industries (about 1% of the total workforce).

The Kyrgyz Republic controls 2% of energy and 30% of the hydropower resources of Central Asia, as well as large reserves of coal. The theoretical hydropower capacity of the country's rivers, according to various estimates, is up to 163 billion kWh per year, of which the hydropower resources of small rivers and watercourses accounts for about 5-8 billion kWh per year. The availability of power generation facilities is one of the strategic comparative advantages of Kyrgyzstan. In terms of hydropower capability, Kyrgyzstan ranks third in the CIS after Russia and Tajikistan. Only one-tenth of the capacity of all hydropower resources of the country has been put into operation.

#### Structure of market:

- *Production (generation)* of electricity is carried out by hydroelectric power plants (HPP) and thermal (co-generation) power plants (TPP). All generation facilities on the market are owned by OAO "Electric Power Plants" (7 - HPPs, 2 TPPs, and 12 small HPPs).
- *Transmission (transportation and export)* of electricity and operational dispatching power control is the responsibility of OAO "National Electric Network of Kyrgyzstan" (the production base of the power transmission system includes power lines (power transmission lines) of a total length of 70,000 km and up to 500 kV).
- *Distribution* of electricity, i.e. delivering it to the end user, is carried out via distribution companies - independent enterprises with government ownership.

Power generating plants (HPPs, TPPs) sell electricity on the wholesale market to distribution companies and large end-users, and the transmission of electricity is effected along high-voltage power networks owned by OAO "National Electric Network of Kyrgyzstan" (NENK). OAO "Electric Power Plants" invoices the distribution companies on the basis of the balance of the actually sold electricity received from NENK. At the same time, technical power losses of OAO

"Electric Power Plants" are compensated by NENK, whereas commercial losses are allocated as overheads of the distribution companies.

Control over the energy sector is the responsibility of the State Department for Regulation of Fuels and Energy, which establishes and approves tariffs for electricity, heat, gas, licensing of relevant activities and monitors compliance with fuels and energy legislation.

#### Production and consumption balance

The production of electricity generated by HPPs depends on the flow of water in rivers; its variations during 2005-2013 were characterized by volatile behavior:

<b>Balance of production and consumption of electric power in Kyrgyz Republic, million kWh</b>									
<b>Indicators</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>
<b>Production</b>	14 687	14 326	14 645	11 789	11 083	12 063	15 158	15 168	13 991
<b>Consumption</b>	12 230	12 063	12 451	11 244	10 049	10 504	12 370	13 580	13 616
<b>Export</b>	2 576	2 437	2 380	552	1 034	1 635	2 794	1 589	375
<b>Import</b>	0	0	0	7	0	76	7	0	0

The decline in production in 2008-2010 caused a reduction in consumption because of the enactment of certain consumption limits for specific areas and regions of the country, whereas the current volume, channeled to the domestic market, increased from 83% in 2005 to 90% on average for 2008-2010.

<b>Structure of consumption of electric power in Kyrgyz Republic, %</b>									
<b>Indicators</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>
<b>Domestic market, including losses</b>	83	84	85	95	91	87	82	90	97
<b>Export</b>	34	33	31	31	25	25	20	21	20
	18	17	16	5	9	14	18	10	3

The per capita electricity consumption and tariffs in the Kyrgyz Republic are the lowest in Central Asia and almost the lowest in the world, within the range of 2.11 cents (for population) - 2.91 cents (for industry) per kWh.

Due to a decline in production volumes, the share of exports decreased from 13% in 2004 to 3% in 2013, relative to the total electricity production in the Kyrgyz Republic. The principal destination of exports is Kazakhstan, which is due to the shortage of electricity in its southern regions during the summertime, and because of the need to ensure authorized water releases from the Toktogul reservoir during the vegetation period for purposes of irrigation in the downstream countries.

The growth of domestic consumption with the existing generating plants acts as a significant deterrent to export opportunities in the energy sector of Kyrgyzstan. In 2010-2013, the growth of consumption averaged about 8% per year, and in 2014 the growth of demand is projected at about 10%.

The capacity of generating electricity is critically affected by the volume of water accumulated in the reservoirs. The significant reduction of the water content in the Syr Darya river in 2008-2010, 2013 and the current year, and the induced drawdown of water in the Toktogul reservoir to meet the domestic electricity requirements in winter, significantly cut down on both generation of electricity, and export opportunities. The subsequent decrease in water levels in 2013, led to a significant reduction in electricity exports, and in 2014 Kyrgyzstan suspended its export supplies and faced a shortage of electricity even in summer. Further increase in consumption will bring about serious shortfalls in electricity supplies, according to the World Bank forecasts, by 2020 the power shortage will reach 30% of the level of domestic consumption in 2012. In order to ensure

growth of the domestic consumption and to enable the recovery and growth of export earnings, it is critically important to put into operation new power generation facilities. In the context of limited domestic resources, after accession to independence, since 1991 Kyrgyzstan has commissioned only one generating plant, which is Kambarata HPP-2, where only one generator unit is installed and operating, through according to the design plan there should be three such units. The capacity of newly built small-scale hydropower plants have their positive impact only for local communities, and don't deal with the problem as a whole.

### Development plans

With a view to improving the efficiency of operation of the power sector and ensure reliability of electricity supply for domestic consumption, the Government of the Kyrgyz Republic is currently considering for adoption a Strategy for development of fuel and energy industries to 2025, and public discussion is underway to evaluate the Medium-term electricity tariff policy of the Kyrgyz Republic for the period 2014-2017<sup>15</sup>. In order to meet the current consumption requirement, eliminate wintertime energy shortages and increase exports, the Strategy makes provision for construction of new plants for a total amount of US\$ 5 billion. Starting from 2010, investors have been invited in the power sector: investments were made to power generation facilities (beginning of the construction of the Verkhne-Narynsky cascade of HPPs, Kambarata HPP-1, a number of small-scale HPPs, upgrading of the TPP in Bishkek, feasibility study for the Kara-Kechinskaya TPP, upgrading of the Toktogul HPP, At-Bashinskaya HPP, etc.), power transmission systems (Datka and Kemin substations, Datka-Kemin and Datka-Khujand transmission lines, cascade replacement of a number of transformers), and power distribution and sale processes (replacement of worn down cables and overhead lines, installation of advanced electronic meters, including prepayment devices, automated power consumption monitoring and metering systems).

Limitation of financing constitutes a major deterrent not only for putting into operation of additional capacity, but also in terms of ensuring safety of operation of the sector. In general, during 1991 - 2010, the energy industry absorbed about US\$ 370 million worth of investments, which is less than US\$ 20 million per year. According to some experts, the amount of investments needed for maintaining depreciation of fixed assets at the level as required by relevant regulatory documents, should be about US\$ 40 million per year throughout this period. The lack of investments resulted in wear increase up to 50%, given the critical level in the industry equal to 25%<sup>16</sup>.

In 2011-2013, there was a significant growth of investments in the sector (an average of about US\$ 130 million per year) spurred by process of implementation of several projects for construction of power lines and modernization of existing and commissioning of new facilities. These investments were financed mainly by soft loans provided by international organizations<sup>17</sup> and foreign countries.

Despite the growth of investments in recent years, the shortage of funds for financing the sector is a key constraint for development of both the sector, and the economy of Kyrgyzstan as a whole.

The main root causes of the shortage of financial resources lie in the inefficiency of the sector and the limited ability to engage private investors. The non-efficiency of the energy sector is largely a result of the tariff policy aimed at subsidizing consumers, primarily including households. According to the Ministry of Energy, the cost of electricity generation in 2013 was KGS 1.24 per kWh, and the average tariff equal to KGS 0.88 per kWh. Furthermore, despite the positive trend, the level of losses in the energy sector in recent years was very high, amounting in 2013 to about 20% of the generated electricity.

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<sup>15</sup> Source: website of the Ministry of Energy and Industry of the Kyrgyz Republic.  
[http://www.energo.gov.kg/en/press\\_tsentr/novosti\\_ministerstva/201](http://www.energo.gov.kg/en/press_tsentr/novosti_ministerstva/201)

<sup>16</sup> In the economy of the USSR, the average amount of annual investments in the energy sector is estimated at US\$ 65 million.

<sup>17</sup> Predominantly by the Asian Development Bank and the World Bank Group.

One more factor, limiting the efficiency of the sector, is the shortage of domestic power lines. The main sources of electricity in the country, i.e. the largest 5 HPPs, which account for 80 percent of the country's electricity generation capacity, are located in the Jalal-Abad region. From there, only a certain portion of electricity is supplied to the regions of the country through its territory. The rest is delivered via Uzbekistan, Kazakhstan and partly Tajikistan. As a result, Kyrgyzstan incurs losses in transportation of electricity across its external perimeter. In addition, this adversely impacts on energy security issues, since in the event of a breakdown in power supply networks, the northern regions would fall short of about 40-50% of electricity, the Osh region - about as much, and Batken region would lose 85%. The shortage of domestic networks is also a deterrent to the development of industrial production in these regions of the country.

It results in loss-making performance of the energy sector: according to the report of the Ministry of Energy and Industry, the income of the energy sector in 2013 was KGS11.4 billion (about US\$ 235 million), the expenditures were equal to about KGS 16 billion (about US\$ 330 million). The estimated loss for 2014, confirmed by the Antimonopoly Committee of Kyrgyzstan, is expected to be equal to KGS 6.3 billion (about US\$ 130 million)<sup>18</sup>.

The inflow of capital into the energy sector helped only to halt the degradation of the infrastructure. The chronic shortage of funds hampers not only new construction and modernization projects, but also to ensure comprehensive maintenance and repairs of the facilities. According to the Ministry of Energy, the equipment wear rate is currently 46%. It resulted in deterioration of the quality of services provided by the sector. According to the Ministry of Energy, in 2013 about 10 thousand emergency outages in the distribution networks were reported<sup>19</sup>, as well as 36 emergency shutdowns of the power plants, of which 30 happened due to equipment failure.

In fact, with its availability of significant potential hydropower resources, Kyrgyzstan, failing to put into operation additional capacity, becomes an energy-deficient country that cannot guarantee its own energy security.

The draft Medium-Term Tariff Policy lays down the principles of self-sufficiency of the energy sector, requirements for phased elimination of cross-subsidies in tariff policies and for annual improvement of the key performance indicators of the energy sector, and tariff increases. In order to mitigate the adverse impact that abrupt tariff hikes may have on vulnerable groups of the population, it provides certain social norms for electricity consumption.

Thus, the proposed start-up of the second generator unit at Kambarata HPP-2 will make a positive contribution in the energy sector of the Kyrgyz Republic, by expanding its export opportunities (electricity transmission to Kazakhstan and other countries), by increasing the production of electricity for domestic consumption, and by enabling continued modernization of the country's hydropower system.

### ***3.3. Foreign Economic Relations of Kyrgyz Republic with Member States of Anti-Crisis Fund***

According to official statistical data, EurAsEC countries account for almost 50% share in the export-import structure of the Kyrgyz Republic, and the balance 50% - for the rest of the world. Re-export of Chinese goods at reduced prices takes up a substantial proportion in the exports to EurAsEC countries.

The imports from ACF member states in 2009 amounted to a total of about US\$ 1.4 billion. Exports from KR in the context of its current market saturation in most cases satisfy only an insignificant portion of requirements of ACF countries in relevant products<sup>20</sup>. E.g., the total amount of imports to Russia from KR in 2011 amounted to US\$ 289.3 million<sup>21</sup>

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<sup>18</sup> At the current rate

<sup>19</sup> [http://www.energo.gov.kg/en/press\\_tsentr/novosti\\_ministerstva/118](http://www.energo.gov.kg/en/press_tsentr/novosti_ministerstva/118)

<sup>20</sup> [http://www.eabr.org/general/upload/docs/resume\\_kr\\_ts.pdf](http://www.eabr.org/general/upload/docs/resume_kr_ts.pdf)

<sup>21</sup> <http://www.kyrgyz.mid.ru/torgec.html>

It should be indicated that a substantial portion of foreign trade of the Kyrgyz Republic with ACF member countries is taken over by migrant labor and their cash remittances. In 2011 about 1 million Kyrgyz migrants were present in ACF member countries. In 2011, the total amount of cash remittances reached US\$ 1.7 million.<sup>22</sup>

The performance indicators of the Kyrgyz Republic are given in Appendix 4.

### **3.4. Project Description**

The Project envisages allocation of funds by the Anti-Crisis Fund of EurAsEC in favor of the Ministry of Finance of the Kyrgyz Republic in the form of an Investment Loan for financing the acquisition and installation of the second generator unit at Kambarata HPP-2. Power generation simultaneously by the first and second generator units will reduce water releases Toktogul reservoir in winter by 1.4 billion m<sup>3</sup> and will increase the amount of power produced up to 1,019 GWh, of which up to 0.864 GWh - in the spring-summer period, and up to 0.155 GWh - in autumn and winter.

The Kambarata cascade of HPPs is the largest construction project for the Kambarata-1 and Kambarata-2 hydropower plants, located on the Naryn River in the transient zone of the Toktogul reservoir. Kambara HPP-2 is expected to be operated in conjunction with the other existing HPPs. The technical specifications, preset by the design documentation, as well as the HPP schematic layout, are given in Appendix 3.

#### Project background

As commissioned by the Ministry of Energy of the USSR, the Central Asian branch of the Institute "Hydroenergoproekt" (Tashkent) developed a project for Kambarata HPPs. The feasibility study for several alternative projects was completed in 1982, and in 1988 the final report analyzing the selected configurations was issued. The proposed project envisaged construction of HPP-1 and HPP-2 with a total installed capacity of 2,260 MW and power generation of 6,260 GWh. The initial concept of the project made provision for HPP-2 to be part of the cascade and should play a counter-regulatory role, whereas HPP-1 should be responsible for water flow control. It was expected that the irrigation water requirements of Uzbekistan and Kazakhstan would be satisfied by flow control of the Naryn River in the existing Toktogul reservoir.

In 1986, pursuant to the decision of the Council of Ministers of the Kirgiz SSR, construction work was started on the cascade of Kambarata HPPs. However, in 1991 following the collapse of the Soviet Union, the construction works were suspended. At the same time in the period between 1986 and 1993, earth and rock excavation operations were carried out on the water intake trench of the HPP-2 powerhouse, transport tunnels were driven. From 1994 to 2003, almost no work was done.

The serious shortages of electricity in the country compelled the government to revert to the implementation of the project. In 2003, an agreement was signed with OAO "Tashgidroproekt" for conducting survey work. It is also known, that on the commission of the Government of the Kyrgyz Republic, in 2008 OOO "Hydrospetsproekt" (Russia) carried out updating of the project design documentation.

By the time the construction work was resumed, the drilling of the blasting drifts for a large-scale explosion, required for the erection of the dam, had been completed, and a considerable volume of work had been performed on the pressure head station and on the construction service

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<sup>22</sup> [http://www.eabr.org/general/upload/CII%20-%20izdania/Proekti%20i%20dokladi/Kyrgyzstan%20-%20CU/EDB\\_Centre\\_Report\\_13\\_Full\\_Rus\\_1.pdf](http://www.eabr.org/general/upload/CII%20-%20izdania/Proekti%20i%20dokladi/Kyrgyzstan%20-%20CU/EDB_Centre_Report_13_Full_Rus_1.pdf)

spillway. In 2009, the large-scale explosion was detonated, which formed a rock pile in the channel of the Naryn River.

In 2003 to 2010, the project was financed by the government and its institutions<sup>23</sup> in a total amount of about US\$ 278 million<sup>24</sup>. According to the consultant (Aiten Consulting Group), from the project inception to early October 2009, about 45% of the works envisaged in the project design estimates, had been completed.

The first unit of Kambarata HPP-2 was started up in November 2010. Since the start-up of the first unit to date 1.576 billion kWh have been generated. The first unit of Kambarata HPP-2 annually produces up to 500 million kWh of electricity supplied to local 110 kV networks. After putting into operation of the 500 kV Datka-Kemin power line, the first unit can increase the output to 700 million kWh of electric power, and the two units will generate up to 1.019 billion kWh.

### ***3.5. Current Status of Project***

In early 2014, the ACF Resources Manager received an application from the Ministry of Finance of the Kyrgyz Republic for provision of ACF funds in the amount of US\$ 80 million to finance implementation of the project "Start-up of Second Generator Unit of Kambarata HPP-2".

Based on the information contained in the Preliminary Application it may be concluded that the project is in compliance with the mission objectives of the ACF, its implementation will have serious stabilization and integration-related benefits, including:

- Improved energy security and sustainability of the power supply system in the Kyrgyz Republic;
- Increased surplus power export capacity of the Kyrgyz Republic for sale to EFSD member countries and improved balance of payments of the Kyrgyz Republic;
- Higher level of electric power availability for the population;
- Expanded trade with the EurAsEC member countries, including in supplies of equipment and services.

In February 2014, the Manager received a letter and an explanatory note from OAO "Electric Power Plants", indicating the amount of expenses required for the preparation, purchase and installation of the second generator unit, estimated at KGS 4.45 billion (approximately US\$ 84 million)<sup>25</sup>.

The distinctive feature of the unfinished HPP-2 is that originally it was contemplated to include this power plant into the cascade of Kambarata HPPs with a counter-regulatory role, and HPP-1 was expected to ensure the water flow (including floods) control function. Over time, the safety of explosions for the HPP-1 dam erection purposes was questioned by engineering professionals, including from the neighboring states, and therefore, the updating of the HPP-2 construction project was carried out in a context where the prospects for the construction work on HPP-1 to proceed, did not appear too unambiguous. Nevertheless, the energy resource potential of the upstream Naryn River, including the cascade of both Kambarata HPPs, exceeds the potential of the Toktogul cascade

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<sup>23</sup>. Resolution of the Government of the Kyrgyz Republic of 04.02.2003 # 43 "On resumption of construction of Kambarata HPP-2". KGS 0.20 billion allocated (about US\$ 4.78 million), Resolution of the Government of the Kyrgyz Republic # 502 dated 23 October 2007 "On construction of Kambarata HPP-2"; funding plan in the amount of KGS 5 billion (about US\$ 142,88 million). Resolution of the Government of the Kyrgyz Republic of 13.09.2008 # 466-P - additional KGS 0.30 billion (about US\$ 8.40 million). Resolution of the Provisional Government of the Kyrgyz Republic, dated 7 May 2010 # 43 "On construction of Kambarata HPP-2" approved the funding plan for the amount of KGS 1, 23 billion (about US\$ 26.74), the Development Fund of the Kyrgyz Republic, 2009 (US\$ 100 million).

<sup>24</sup> Letter with an explanatory note of Zh. Nazarov, Deputy CEO of OAO "Electric Power Plants". of 28.02.2014 # 112-3/B-189 addressed to A. Shirokov, Head of the EDB Bishkek Office.

<sup>25</sup> Letter from OAO "Electric Power Plants" # 112-3/B-189 of 28 February 2014 with an explanatory note.

HPPs, which motivated the renewed interest in planning on construction of HPP-1. Kazakhstan and Uzbekistan do not insist on banning the construction of HPP-1, but they favor a preliminary independent expert evaluation of the project reliability. Thus, in case the construction of HPP-1 goes ahead, HPP-2 will again revert to its counter-regulatory function, its current mode of operation will change, and its throughput capacity will be increased<sup>26</sup>.

The construction of the Kambarata HPP-2 is not completed; the plant is currently running in a temporary mode of operation. In view of the revised design planning regulatory requirements, the category of solidity of the dam was upgraded from 3 to 2, which resulted in a shortfall of the rated flow capacity of the Kambarata HPP-2. In order to eliminate it, additional spillways must be built.

Thus, the decision to go ahead with the installation and start-up of the second generator unit at Kambarata HPP-2 should be based on a preliminary evaluation of the project as a whole. In particular, it is necessary to update the project design estimates, determine the costs of works, of purchase of materials and equipment, assess the consumers and volumes of sales, analyze the condition of the hydropower market of the Kyrgyz Republic and its impact on the energy market in Central Asia.

At the same time, the preliminary analysis of the existing documentation for the Kambarata HPP-2 project by the Manager revealed significant potential project risks discussed in Section 3.11 hereof.

In view of the above, if the ACF Council approves the Preliminary Application of the Ministry of Finance of the Kyrgyz Republic, it will be necessary to conduct a detailed evaluation of potential project risks and prepare a plan of action for ensuring reliable, safe and cost-effective operation of Kambarata HPP-2, including for updating the existing Project business plan in cooperation with a consultant, to be engaged on a competitive basis to carry out this study.

### ***3.6. Project Funding Requirements***

Currently, the project cost is estimated by the Ministry of Finance of the Kyrgyz Republic at US\$ 100 million, of which 80% is expected to be financed by the Anti-Crisis Fund of the EurAsEC. Other financing terms under consideration are as follows:

- Interest rate: 1.00% per annum
- Risk premium: amount to be determined upon completion of project evaluation.
- Front-end fee: 0.625% of loan amount
- Loan maturity, including grace period: 20 years
- Grace period for principal repayment: 8 years
- Grace period for interest repayment: n/a
- Repayment of the principal is performed every six months in equal installments
- Grant-element of the ACF loan: 38.42%.

The amount of financing will be updated following an evaluation of the current condition of the HPP, an estimate of the volume of construction work to be completed in the installation of the second generator unit, as well as on the basis of the updated cost of such works and the turbine.

### ***3.7. Expected Economic Benefits of Project***

Project Implementation will enable:

- increasing the output of Kambarata HPP-2 electric power from 797 million kWh per year to 1019 million kWh year;

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<sup>26</sup> A notice on safety issues in the operation of the Kambarata HPP-2 on the Naryn River, prepared by the experts of OAO "Institute Hydroproekt".

- higher level of economic security and independence of the country from external supplies of fuel and electricity;
- less acute winter shortage of electricity supply in the country;
- enhancing reliability and stability of supplies to power consumers;
- launching the power compensation facility for electricity, generated by the Toktogul cascade and exported to Kazakhstan or other countries;
- consolidating partly the foreign trade balance by increasing electricity exports to the neighboring EDB member state under an intergovernmental agreement and eliminating power shortages in southern regions of Kazakhstan;
- reducing tensions in settling issues regarding the uses of water and energy resources in the Aral Sea basin.
- reducing water flow from the Toktogul reservoir in winter by up to 1.4 billion m<sup>3</sup>.

Detailed forecasts will be developed in the process of updating the current business plan of the project.

### ***3.8. Project Compliance with EFSD Objectives***

The Project is an integral part of the Medium-Term Strategy for Development of the Electric Power Industry of the Kyrgyz Republic for 2012-2017<sup>27</sup>. Its implementation will contribute to improving energy security and independence of the Kyrgyz Republic, will increase the volume of power generation, reduce its shortage, and also decrease the water flow rate from the Toktogul reservoir in winter.

The Project has a strong integration potential, because:

- it is contemplated that the second power generator unit will be manufactured and supplied by the relevant Russian producers, and the power generated will be purchased by OAO "Electric Power Plants";
- the implementation of the Project will allow the supply of surplus electricity to the southern regions of the Republic of Kazakhstan and other countries, as well as to mitigate the contradictions in the hydropower- and irrigation-related issues between the countries of Central Asia.

In full compliance with the Regulation on ACF Investment Loans, the Project is classified as 'National', since:

- The Borrower under the Project is the Government of the Kyrgyz Republic;
- It is implemented by a Project Company;
- It is implemented within a member state of the Fund;
- It provides for the expansion of HPP production capacity.

### ***3.9. Project Funding Scheme***

The ACF loan is provided to the Ministry of Finance of the Kyrgyz Republic for subsequent financing of the Project Company - OAO "Electric Power Plants". Debt service liabilities to ACF will be sovereign liabilities of the Kyrgyz Republic.

The Kyrgyz Republic will enter the funds borrowed from ACF in its national budget as a source of funding its budget deficit and as expenditure item for financing the Project, as well as it will post into the national budget the budget outlays allocated for repayment and service of the borrowed funds of ACF.

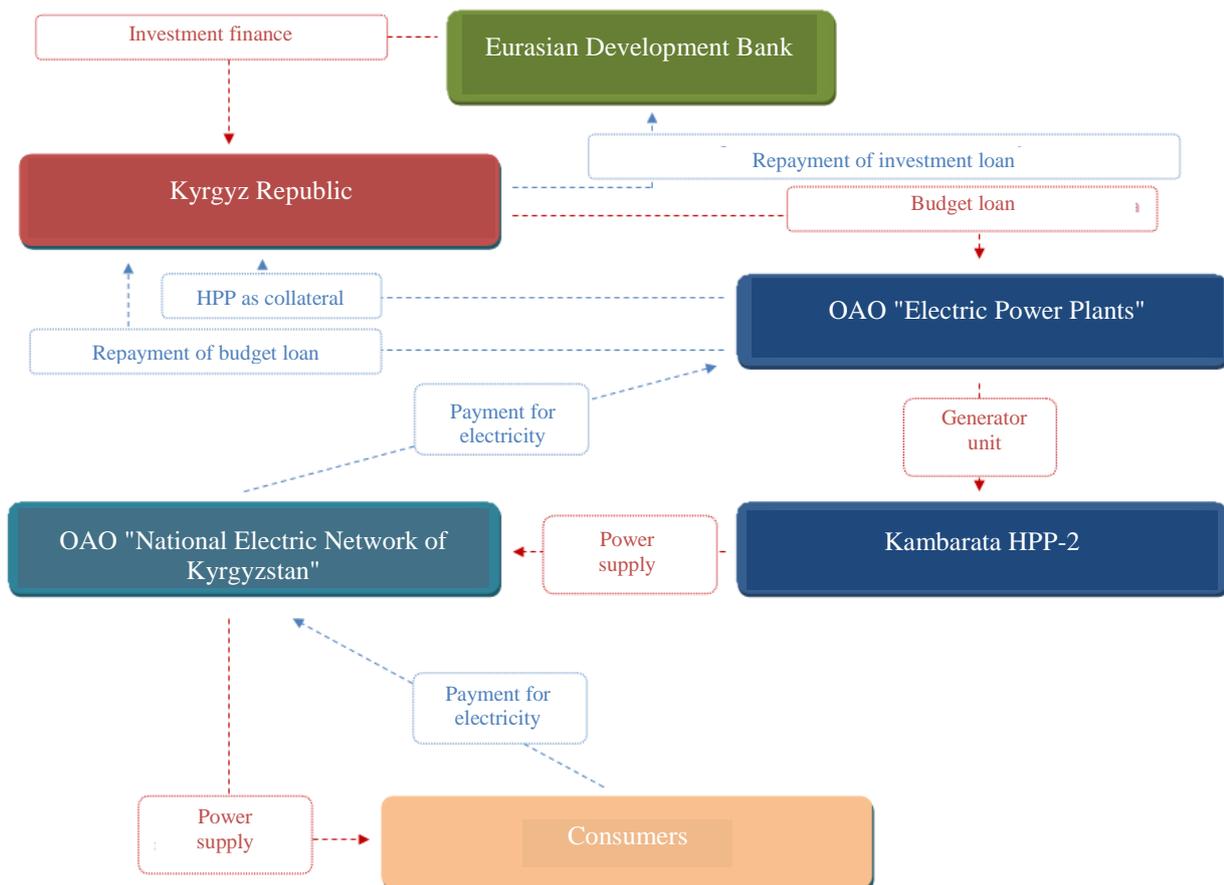
The funds provided alongside with the investments of the Kyrgyz Republic in the form of a budget loan will be used for the preparation of HPP-2 for the installation of the second generator

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<sup>27</sup> Resolution of the Government of the Kyrgyz Republic of 28 May 2012 # 330

unit, for its acquisition and installation at the power plant, and for its start-up. The electricity thus generated, will be transmitted to large-scale industrial enterprises directly and to the distribution companies, which will then deliver electricity directly to consumers. Repayment of arrears on electricity bills will be made by drawing on payments of end users, which in turn will ensure repayment of debt on budget and sovereign loans. It should be noted that Kambarata HPP-2 is pledged to the government, whereby the authority of pledge holder is delegated to the Ministry of Finance of Kyrgyz Republic.

The funding scheme of the Project conforms to the Regulation on the Use of ACF Resources for Providing Investment Loans.



### 3.10. Government Support

The borrower is the Kyrgyz Republic represented by the Ministry of Finance.

The Project is an integral part of the Medium-Term Strategy for Development of the Electric Power Industry of the Kyrgyz Republic for 2012-2017, which addresses its implementation as top priority.

### 3.11. Preliminary Risk Assessment

Category	Level	Description	Mitigation measures	Rating following corrective action
<b>Construction risks:</b> <ul style="list-style-type: none"> <li>• <b>poor-quality blasting</b></li> <li>• <b>exceeding original project cost estimates</b></li> <li>• <b>quality of installation and construction works</b></li> </ul>	High level of risk	<p>The project construction documentation is way out of date (surveying and design planning documents were originally prepared in 1988 and contain subsequent selective revisions, and the business plan "Completion of construction of Kambarata HPP" is dated 2009).</p> <p>No data on the scope of work completed to date, no assessment of their quality and acceptability for further construction. No updated business plan or feasibility study.</p>	<p>The Manager will announce a competitive selection to engage a consultant to evaluate the current phase of construction, the project is currently in, and its status as a whole, to determine the volume and quality of works performed, their sufficiency for installing the second generator unit, to confirm or correct the data (including cost-related) contained in the business plan provided the Kyrgyz Republic. Selection of the consultant will take place in accordance with the requirements of the international bidding guidelines; supervision should follow the rules of the ACF Procurement Policy.</p>	Medium level of risk
<b>Social and environmental risks</b>	High level of risk	<p>Risk of sedimentation of the reservoir; melting glaciers due to global warming; risk of pipeline rupture due to the activation of the tectonic fault "Yuzhny"</p>	<p>These risks are identified by experts and are in part contained in the documentation submitted by the Ministry of Finance. The project risks will be further evaluated by an independent consultant, and measures for their mitigation and offsetting will be proposed, as well as the costs involved will be assessed.</p>	Medium level of risk
<b>Corruption and fiduciary risks</b>	Medium level of risk	<p>Corruption Perception Index, estimated for Kyrgyzstan by Transparency International, is deteriorating: in 2012 Kyrgyz Republic was rated 154th out of 183 countries; compared to 150th in 2007.</p> <p>In the process of funding the Project, potentially various corruption and fiduciary risks may arise in connection with alleged inappropriate use of funds.</p>	<p>To reduce such potential risks, in the process of Project implementation IBRD procurement and disbursement policies and procedures will be applied, to provide for the possibility of withdrawal of disbursed amounts for non-compliance. For monitoring of procurement operations provision is made for engaging IBRD experts. In addition, if necessary, special compliance review procedures of the EDB will be applied.</p>	Low level of risk

## Appendix 1: Matrix of Project Compliance with ACF Mission Objectives<sup>1</sup>

	Objectives				
	Anti-Crisis	Integration-specific	Sustainable development		
			Social sustainability	Economic sustainability	Environmental sustainability:
<b>Criteria</b>	<ul style="list-style-type: none"> <li>• <b>Project implementation in depression-stricken sector<sup>2</sup></b></li> <li>• <b>Project implementation in sector exposed to crises.</b></li> <li>• <b>Funding of project, whose failure may provoke adverse social and economic impacts (threats to energy security)</b></li> <li>• Implementation of project of strategic importance in the context of increasing budget constraints</li> <li>• Restoration of sector in the aftermath of armed conflicts, mass riots, etc.</li> <li>• Creation of new jobs in the context of growing unemployment</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Growth of mutual investments in EurAsEC countries</b></li> <li>• <b>Growth of trade between EurAsEC countries</b></li> <li>• Quantitative growth of product items for trading between EurAsEC countries</li> <li>• Growth of passenger and freight traffic flows in EurAsEC countries</li> <li>• Reduced overheads on traffic of passengers and goods between EurAsEC countries</li> <li>• Reduced transit time for passengers and goods between EurAsEC countries</li> <li>• Improved access (reduced costs and time) to key transport hubs (not necessarily located in EurAsEC) linking EurAsEC countries</li> <li>• Project implementation with a view to preparation of country to joining Customs Union</li> </ul>	<ul style="list-style-type: none"> <li>• Creation of new jobs</li> <li>• Creation of new jobs for disadvantaged groups of population</li> <li>• Improvement of food security</li> <li>• Reduction of volatility of prices for food and basic services</li> <li>• Increased access to basic services (education, health care, etc.)</li> <li>• Improved access to higher quality water resources</li> <li>• <b>Increased access to electric power supply for communities in inaccessible and sparsely populated areas</b></li> <li>• Broader coverage of inaccessible and sparsely populated areas with communications services</li> <li>• Provision of access to housing utility services (sewerage, gas supply, district heating) for communities in inaccessible and sparsely populated areas</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Growth of tax revenue (both directly from project implementation, and indirectly, by creating conditions for development of other industries and/or businesses)</b></li> <li>• <b>Development of export-driven sectors</b></li> <li>• Growth of share of domestic value added products.</li> <li>• <b>Support of stability of operation of national power supply systems</b></li> <li>• Reduction of logistics overheads</li> <li>• Diversification of economy and/or exports</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Project implementation is carried out in compliance with stringent environmental protection policies (IFI safeguards)</b></li> </ul>

<sup>1</sup> An investment project, accepted for consideration by the Manager, must meet one or more criteria in each column of the Matrix.

<sup>2</sup> Matrix criteria the Project is in compliance with are highlighted.

## Appendix 2: Application of the Kyrgyz Republic for ACF Investment Loan

### MINISTRY OF FINANCE OF KYRGYZ REPUBLIC

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17/01/2014 # 16-Z-Z/504

Resources Manager of the Anti-Crisis Fund  
of the Eurasian Economic Community –  
Eurasian Development Bank,  
Republic of Kazakhstan

The Ministry of Finance of the Kyrgyz Republic hereby expresses its interest in raising investment funding from the Anti-Crisis Fund of the Eurasian Economic Community for financing the project "Start-up of Second Generator Unit of Kambarata HPP-2", which will be implemented by OAO "Electric Power Plants".

In order to be able to proceed with preparations for the proposed investment project in accordance with the ACF procedures, please find enclosed herewith our Project Concept, drafted pursuant to the ACF Regulation on Investment Loans approved by the Fund Council.

The enclosed Concept contains full and authentic information on OAO "Electric Power Plants" and the above investment project, which can be verified by means of relevant supporting documents. We hereby consent to any validation check of the data contained therein and are ready to provide any documents in support of the above information. We undertake to report to the Resources Manager promptly about any changes in the above data, as well as about substantive changes in the financial status of the Borrower, and any other supporting documents, as well as any reasonable additional data you may request.

Enclosure: Investment Project Concept – 10 pgs

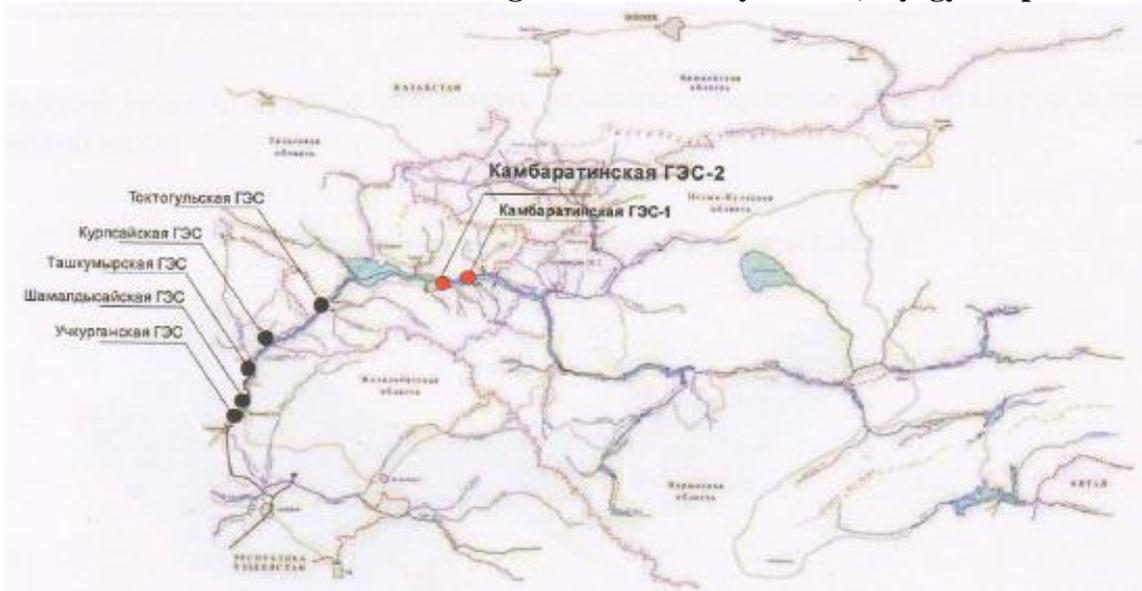
MINISTER

*Signed*

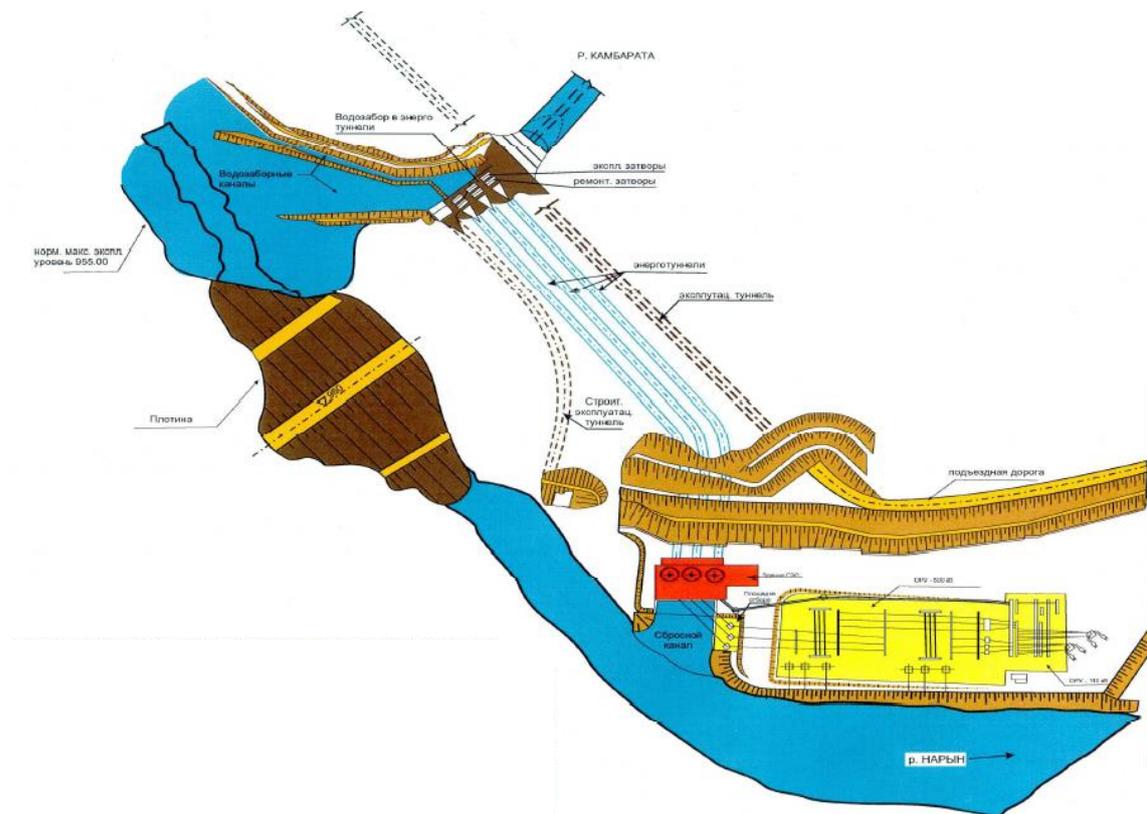
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## Appendix 3: Location and Schematic Layout of Kambarata HPP-2

### Cascades of Kambarata and Toktogul HPPs on Naryn River, Kyrgyz Republic



### Schematic of Kambarata HPP-2



## Appendix 4: Key Economic Performance Indicators of Kyrgyz Republic<sup>1</sup>

Performance Indicator	2009	2010	2011	2012	2013
GDP (growth to previous year, %)	102.9	99.5	106.0	99.9	110.5
including net of Kumtor	103.4	97.9	106.3	106.3	105.8
GDP per capita, US\$	880.0	875.0	1,120.5	1,181.8	1,280.0
Inflation (average annual, %)	6.8	7.8	16.6	2.8	6.6
Investments (% of GDP)	22.9	23.9	24.3	26.2	26.5
Consolidated budget revenues (% of GDP) <sup>2</sup>	32.3	30.5	33.3	28.6	20.8
including taxes	22.2	22.3	24.2	21.0	20.8
Consolidated budget expenditures (% of GDP)	35.9	36.8	38.1	34.8	32.8
Consolidated budget deficit (% of GDP)	-3.6	-6.3	-4.8	-6.2	-12.0
Sovereign debt (% of GDP)	57.9	60.3	52.4	51.9	47.8
Exports of goods and services (increase to previous year,%) <sup>3</sup>	1.0	-16.7	17.4	5.2	8.1
Imports of goods and services (increase to previous year,%) <sup>3</sup>	-13.1	-15.8	12.0	30.5	8.9
Current account transactions (% of GDP)	-4.0	-6.6	-10.8	-25.9	-23.1
External debt (% of GDP)	84.6	88.7	80.0	82.0	83.3
including public debt (% of GDP)	53.7	55.4	47.5	47.9	43.8
Sovereign debt service burden to exports of goods and services (% of exports of goods and services)	3.6	3.9	3.1	3.4	3.0

<sup>1</sup> According to calculations by ACF

<sup>2</sup> 2012-2013 - national budget

<sup>3</sup> In 2013 - exports and imports, net of services