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December 17, 2009

Dear Council Member:

I am writing to notify you that we have today posted on the GEF's website at www.TheGEF.org, a medium-sized project proposal from UNDP entitled ***Kyrgyzstan: Small Hydro Power Development***, to be funded under the GEF Trust Fund (GEFTF).

The project's goal is to reduce GHG emissions by creating favorable legal, regulatory and market environment and building institutional and administrative capacities to promote development of Kyrgyzstan's abundant small hydropower potential for grid-connected electricity generation. The objective is to help the government achieve a significant increase in new small hydro power generating capacity by the close of the project.

The project proposal is being posted for your review. We would welcome any comments you may wish to provide by January 06, 2010, in accordance with the new procedures approved by the Council. You may send your comments to gcoordination@TheGEF.org.

If you do not have access to the Web, you may request the local field office of the World Bank or UNDP to download the document for you. Alternatively, you may request a copy of the document from the Secretariat. If you make such a request, please confirm for us your current mailing address.

Sincerely,



Attachment: Project Document

Copy to: Country Operational Focal Point
GEF Agencies, STAP, Trustee



REQUEST FOR CEO ENDORSEMENT/APPROVAL
PROJECT TYPE: MEDIUM-SIZED PROJECT
THE GEF TRUST FUND

Submission Date: 17 November 2009
Re-submission Date: 15 December 2009

PART I: PROJECT INFORMATION

GEFSEC PROJECT ID: 3931 **Project Duration:** 48 months

GEF AGENCY PROJECT ID: 3134

COUNTRY(IES): Kyrgyzstan

PROJECT TITLE: Small Hydro Power Development

GEF AGENCY(IES): UNDP

OTHER EXECUTING PARTNER(S): Directorate for Small and Medium-scale Power Projects in the Kyrgyz Republic (DSMP), Ministry of Energy

GEF FOCAL AREA(s): Climate Change

GEF-4 STRATEGIC PROGRAM(s): CC-SP3-RE

NAME OF PARENT PROGRAM/UMBRELLA PROJECT: N/A

Expected Calendar (mm/dd/yy)	
Milestones	Dates
Work Program (for FSPs only)	N/A
Agency Approval date	Dec 2009
Implementation Start	Jan 2010
Mid-term Evaluation (if planned)	Dec 2012
Project Closing Date	Dec 2013

A. PROJECT FRAMEWORK (Expand table as necessary)

Project Objective: To promote grid-based small hydro power (SHP) in Kyrgyzstan								
Project Components	Indicate whether Investment, TA, or STA	Expected Outcomes	Expected Outputs	GEF Financing		Co-Financing		Total (\$) c=a+ b
				(\$ a)	%	(\$ b)	%	
1. Policy, institutional and regulatory framework for SHP.	TA	Streamlined and comprehensive market-oriented energy policy and legal/regulatory framework for SHP development.	Streamlined land tenure, water use rights and redefined/strengthened role of DSMP. Established procedures for the introduction of competition in the award of sites/concessions. Standard PPA to facilitate DSMP negotiations with IPPs. One-stop shop for issuance of construction licenses and permits to developers.	170,000	53	150,000 (DSMP)	47	320,000
2. Financial.	TA	Capacity available within DSMP/country to evaluate the economic and financial viability of SHP projects and leverage investments through conducive tariffs, financial	Methodology for the economic and financial evaluation of SHP plants. Standard PPA for purchase of power from IPPs. Standard financial evaluation methodology for calculating SHP tariffs to be paid to IPPs and the tariffs to be	200,000	32	280,000 (MDG CF) + 150,000 (DSMP)	68	630,000

		incentives, appropriate guarantee and risk mitigation instruments and CDM activities.	charged to consumers. Financial and other incentives to be provided to project developers. Guarantee and risk mitigation instruments that facilitate IPP investment. PIN and PDD for CDM.					
3. Technical.	TA	Capacity available within DSMP to assess hydrological resources, design, evaluate and implement projects, and provide maintenance and repair services.	Programme for updating the 30-year old hydrological data. Guidelines and technical standards for SHP development. Capacity within DSMP to design, evaluate and implement projects. Local capacity for maintenance and repair services.	150,000	50	150,000 (DSMP)	50	300,000
4. Additional SHP capacity.	TA/Inv	Addition of 20 MW of SHP capacity.	Full feasibility and technical design studies for 5 SHP plants totalling 20 MW. Investors identified and supported throughout full project cycle resulting in financial closure and construction and commissioning of the five SHPPs	300,000	1.4	20,000,000 (Priv. Sector) + 300,000 (DSMP) + 200,000 (IWRMP)	98.6	20,800,000
5. Information and Awareness.	TA	Outreach programme, monitoring and project experience/best practices/lessons learned for replication throughout the country/region.	Plan to implement outreach/promotional activities targeting investors. Capacity development of DSMP to monitor and document project experience. Published materials on project experience/best practices and lessons learned/website.	80,000	62	50,000 (DSMP)	38	130,000
6. Project Management (PM)*				50,000	33	100,000 (UNDP)	67	150,000
Total Project Costs				950,000		21,380,000		22,330,000

*PM costs include only the costs of project management for TA component, while PM cost for investment are included in the budget for Component 4 and will be borne by private sector

B. SOURCES OF CONFIRMED CO-FINANCING FOR THE PROJECT (expand the table line items as necessary)

<i>Name of Co-financier (source)</i>	<i>Classification</i>	<i>Type</i>	<i>Project</i>	<i>%*</i>
Directorate for Small and Medium-scale Power Projects (DSMP) ¹⁾	Government	In-kind	800,000	3.7
UNDP CO ²⁾	Multilateral Agency	Grant	100,000	0.5
MDG Carbon Facility ³⁾	Multilateral Agency	Grant	280,000	1.3
UNDP-EU Integrated Water and Resource Management Project (IWRMP) ⁴⁾	Multilateral Agency	Grant	200,000	0.9
Tbd ⁵⁾	Private Sector	Investment	20,000,000*	93.6
Total Co-financing			21,380,000	100%

*Percentage of each co-financier's contribution at CEO endorsement to total co-financing.

** In Kyrgyzstan, construction costs of SHP are estimated at \$ 1 million/MW of installed capacity.

- DSMP co-financing, in kind, will be used to finance activities under Components 1-5. As an added incentive to private sector developers, the Government proposes to lease to them free of charge and for a period of 25 years the land required for development of small hydropower stations. Over this 25-year period, the total in-kind contribution related to the land lease is estimated at \$ 75,000 (rate of \$ 600 per site per year).
- UNDP CO contribution will cover PM cost for TA
- MDG Carbon Facility will cover the cost of carbon project development (PDD, validation and verification) under Component 2
- UNDP-EU IWRM Project will co-finance the cost of feasibility studies and engineering design for pilot SHP projects (Component 4)
- At the PPG stage, a Framework Agreement was signed and a Letter of Intent was secured from South Korean company Cotec LLC for a total of \$ 10.5 million to develop 4 SHPs among those listed in Annex F. In addition, a Framework Agreement was signed between The Directorate and Seloga Engineering of Malaysia on 25 November 2009 to "carry out investigation and feasibility study for the construction of up to 20 hydropower plants of various capacities from 1.0 MW to 30 MW each and for their total capacity of approximately 240 MW ...".

C. FINANCING PLAN SUMMARY FOR THE PROJECT (\$)

	<i>Project Preparation a</i>	<i>Project b</i>	<i>Total c = a + b</i>	<i>Agency Fee</i>	<i>For comparison: GEF and Co-financing at PIF</i>
GEF financing	50,000	950,000	1,000,000	95,000*	950,000
Co-financing	50,000	21,380,000	21,430,000		21,280,000
Total	100,000	22,330,000	22,430,000	95,000*	22,230,000

*Excluding 5,000 US\$, Agency Fee for PPG, already received by UNDP based on GEF CEO Letter dated 22 April 2009

D. CONSULTANTS WORKING FOR TECHNICAL ASSISTANCE COMPONENTS:

<i>Component</i>	<i>Estimated person weeks</i>	<i>GEF amount(\$)</i>	<i>Co-financing (\$)</i>	<i>Project total (\$)</i>
Local consultants*	GEF-557	139,250	DSMP- 800,000	939,250
International consultants/ Sub-contracts*	GEF-166	Cons: 338,250 Subc: 250,000	MDGCF- 280,000 IWRMP- 200,000	1,068,250
Total	GEF-723	727,500	1,280,000	2,007,500

* Details to be provided in Annex C.

E. PROJECT MANAGEMENT BUDGET/COST:

<i>Cost Items</i>	<i>Total Estimated person weeks (for GEF component only)</i>	<i>GEF amount (\$)</i>	<i>UNDP Co-financing (\$)</i>	<i>Project total (\$)</i>
Local consultants*	135	50,000	78,000	128,000
Office facilities, equipment, vehicles and communications*			12,000	12,000
Travel*			10,000	10,000
Total		50,000	100,000	150,000

* Details to be provided in Annex C.

F. DOES THE PROJECT INCLUDE A “NON-GRANT” INSTRUMENT? yes no

(If non-grant instruments are used, provide in Annex E an indicative calendar of expected refloes to your agency and to the GEF Trust Fund).

G. DESCRIBE THE BUDGETED M & E PLAN:

1. A Project Board, consisting of representatives of the Ministry of Energy and its Directorate for Small and Medium-scale Power Projects in the Kyrgyz Republic, the State Agency for Environmental Protection and Forestry (as the GEF focal point), National Electricity Generation Company, Regional Electricity Distribution Companies and UNDP, will provide overall guidance to project execution. Private sector investors interested in participating in joint ventures or as independent power producers and other interested parties will be invited to participate in the meetings of the Project Board, as and when required.

2. UNDP will monitor and report on progress in project implementation in accordance with the UNDP Programme Manual and GEF Monitoring and Evaluation (M&E) guidelines. In undertaking this, it will be supported by a National Project Director, to be designated by the Directorate for Small and Medium-scale Power Projects in the Kyrgyz Republic, a Project Management Unit (PMU) that will be supported by an international part-time Chief Technical Adviser and the UNDP-GEF Regional Coordination Unit (RCU) in Bratislava. The PMU will be required to report relevant progress to the National Project Director and UNDP on a quarterly basis. Regular monitoring of the project will occur through this reporting mechanism as well as through site visits, as required.

3. Progress will be measured against targets set out in the Work Plan and Project Logical Framework. For each of the project components, a detailed monitoring plan will be prepared during project inception. In this connection, a Project Inception workshop will be organized at the start of project activities to review the Logical Framework; specifically detailed indicators, means of verification, assumptions, etc. will be revisited and adapted as necessary, including measures to track any major project risks and taking into consideration the situation prevailing in the

country. These indicators will draw upon all sources of information, including those of other donors active in the energy/renewable energy/small hydropower field in the country. Appropriate and specific performance benchmarks will be established prior to project implementation to effectively monitor project progress and to make crucial management decisions.

4. Annual Tripartite Review meetings (TPRs), with the participation of the project team and stakeholders, will be held to review progress, identify problems, and agree on solutions to maintain timely provision of inputs/achievement of results. The Project Board will review annual work plans as well as provide strategic advice on the most effective ways and means of implementation. Reporting to GEF will be accomplished through annual Project Implementation Reviews (PIRs).

5. Additionally, the project will be the subject of an independent mid-term evaluation midway through project implementation and a final evaluation at project completion. The independent evaluations will review the relevance, timeliness and impact of project inputs and discuss lessons learned for use in improving the quality of future development interventions with similar activities that could be undertaken in collaboration with other development partners to the project. The results of the final evaluation, incorporating the lessons learned, will be disseminated both within and outside Kyrgyzstan. All reports will be posted on the project website.

6. The costs for Monitoring and Evaluation are estimated at \$ 50,000 (Table 1 below). This budget allocation includes activities related to preparing quarterly progress reports, undertaking Project Implementation Reviews, Annual Project Reviews and independent mid-term and final evaluations, and organizing/participating in Project Board Meetings, as required.

Table 1: Monitoring and Evaluation Work Plan* and Estimated Associated Budget.

Type of M&E activity	Responsible Party(ies)	Estimated Budget (\$) (Excluding Project Team staff time)	Time-frame
Inception Workshop (IW)	- Project Manager - Chief Technical Adviser - UNDP Country Office (CO) - UNDP/GEF RCU	\$ 5,000	Within first two months of project start-up.
Inception Report	- Project Team - UNDP CO	None	Immediately following IW.
Measurement of Means of Verification for Project Purpose Indicators	- Project Manager will oversee the commissioning of specific studies and institutions, and delegate responsibilities to relevant team members	\$ 5,000 (Note: To be finalized during inception phase and at Inception Workshop).	Start, mid and end of project
Measurement of Means of Verification for Project Progress and Performance (measured on an annual basis)	- Oversight by part-time Chief Technical Adviser and Project Manager - Measurements by regional field officers and local IAs	\$ 5,000 (Note: To be determined as part of the Annual Work Plan's preparation).	Annually prior to APR/PIR and to the definition of annual work plans
Annual Project Report / Project Implementation Review (APR/PIR)	- Project Team - UNDP CO - UNDP/GEF RCU	None	Annually
Tripartite Project Review (TPR) and TPR report	- Government Counterparts - UNDP CO - Project team	None	Annually, upon receipt of APR

Type of M&E activity	Responsible Party(ies)	Estimated Budget (\$) (Excluding Project Team staff time)	Time-frame
	- UNDP/GEF RCU		
Project Board Meetings	- Project Manager - UNDP CO	None	Following Project IW and subsequently at least every six months
Periodic progress reports	- Project Team	None	To be determined by Project Team and UNDP CO
Technical reports, as per project activities	- Project team - Consultants, as needed	Cost to be covered by consultancy budget	To be determined by Project Team and UNDP CO
Mid-term Evaluation	- Project team - UNDP CO - UNDP/GEF RCU - External Consultants (i.e. evaluation team)	\$10,000	At the mid-point of project implementation.
Project Terminal Report	- Project Team - UNDP CO	None	At least one month before the end of the project
Independent Final Evaluation	- Project Team, - UNDP CO - UNDP/GEF RCU - External Consultants (i.e. evaluation team)	\$ 15,000	At the end of project implementation
Lessons learned/Best practices	- Project Team - UNDP/GEF RCU	\$ 5,000	Yearly
Audit	- UNDP CO - Project team	\$ 5,000	Yearly
TOTAL		\$ 50,000	

* A more detailed Monitoring and Evaluation Plan is provided in Annex I.

part ii: project justification: In addition to the following questions, please ensure that the project design incorporates key GEF operational principles, including sustainability of global environmental benefits, institutional continuity and replicability, keeping in mind that these principles will be monitored rigorously in the annual Project Implementation Review and other Review stages.

A. STATE THE ISSUE, HOW THE PROJECT SEEKS TO ADDRESS IT, AND THE EXPECTED GLOBAL ENVIRONMENTAL BENEFITS TO BE DELIVERED:

7. Problem Statement: With a per capita GDP of US\$ 600, the Kyrgyz Republic is among the poorest countries in the world, while at the same time it is among 30 most GHG intensive economies globally¹. Despite nearly universal 98% grid connection rate, since early 2000s inadequate access to electricity services has attained a chronic character in Kyrgyzstan, which has by now translated into the biggest energy crisis. Official data for 2008 show electric power generation dropping by 18.5% during the first eleven months of 2008. A shortfall of some 1.0-1.5 billion kilowatt hours was recorded only for the period of November 2008 – March 2009. The shortfall between demand and supply is exacerbated by high losses within the extensive, inefficient and obsolete distribution system, which in

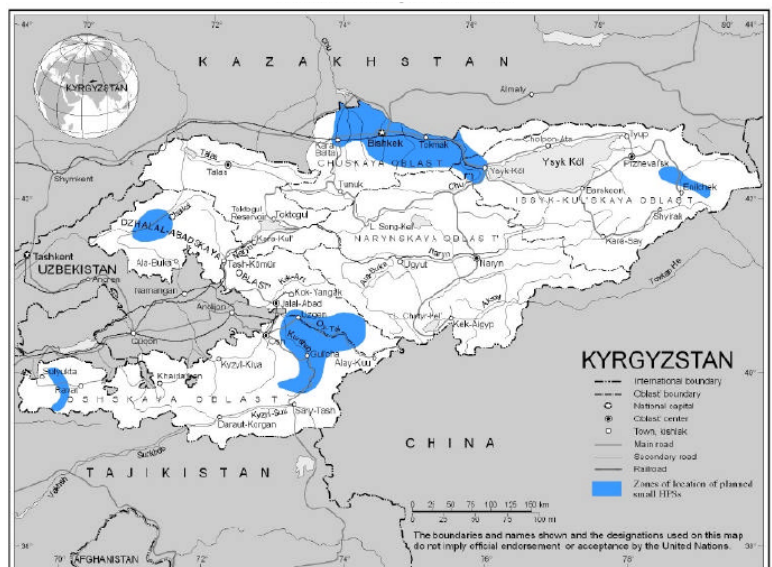
¹ Kyrgyzstan carbon intensity is 675 tCO₂/Mill.Intl. \$ (based on PPP) - higher than in Saudi Arabia or Kuwait. Source: Climate Analysis Indicators Tool (CAIT) Version 5.0. Washington, DC: World Resources Institute, 2008

2008 were estimated at 42% of total electricity distributed (or 4.9 billion kilowatt hours). Current power supply in many regions is characterized by frequent interruptions due to load shedding. Consequently, many households and enterprises are forced to switch to individual diesel and mazut (heavy oil)-fired generators to provide for back-up power when grid supply is not available.

8. To cope with the crisis, the government of the Kyrgyz Republic introduced several short-term response measures, with a focus on energy security. Planned blackouts (load shedding) were introduced in March 2008, lifted in mid-June, and then re-imposed in August. On 7 October 2008, it was announced that power cuts would be extended to 12 hours per day in most provinces. Only nine hours of electricity per day were supplied in Batken province; in Bishkek, only 14 hours of electricity per day was guaranteed. A similar situation is expected this year. Further suppression in energy demand is to result from the closure of schools that use electricity for heating from 25 December 2009 through 1 March 2010 (coal-heating systems are to be installed in all new schools). Generation capacity of the coal-fired 600 MW Bishkek combined Heat and Power Plant is to be upgraded via refurbishing; additional fuel has been procured, thanks to a \$5 million World Bank emergency energy assistance grant. Electricity tariffs for households and other users have risen sharply and are expected to rise further in the next 12-24 months.

9. The Kyrgyz Republic views the expansion of generation capacity - primarily via the construction or expansion of large dams and fossil fuel-based plants in Bishkek and Osh - as central to its longer-term development prospects. However, in light of their large capital requirements and long gestation periods, these projects are very unlikely to materialize in the short- or even medium-term. As an alternative, faster and climate-friendly solution to the acute energy crisis in Kyrgyzstan, this project will support the Government of Kyrgyzstan in harnessing its abundant small-hydro power potential based on the premises that smaller projects with lower capital requirements and shorter implementation periods represent a more economically and environmentally viable option.

10. Potential for small hydro power development: According to EBRD, by absolute indices of potential hydro resources and by concentration of potential hydro resources on the territory, Kyrgyzstan is ranked third among the CIS countries, after Russia and Tajikistan. The largest small hydropower potential is concentrated in northern, southern and eastern districts of the Republic, as illustrated in blue colour on the map at the right. Its hydro potential electricity generation is estimated to total 163 TWh/yr, while only 73 TWh/yr is technically feasible and 48 TWh/yr economically exploitable. Roughly 162 MWh/yr is currently being exploited. During the Soviet era, Kyrgyzstan was assigned the role of providing hydro generation to the regional interconnected system. But the policy of the former USSR was to focus primarily on the construction and exploitation of large projects. As a result, many small plants (mainly up to 10 MW) that were in operation in the 1950s and 1960s were abandoned. At the moment, out of total 18,500 MW of installed hydro power capacity, only 32 MW constitute small hydro plants; all are more than 40 years old and in dire need of modernization.



11. It is only now after decades of under-investment and neglect, that attention is turning to small hydro power, whose total potential is estimated to be between 570 and 900 MW, out of which some 311 MW (Annex F) are earmarked for development by 2012, as per Presidential Decree No. 365 of 14 October 2008. However, as indicated in the Deputy Prime Minister's letter of 13 September 2009 (Annex H.6), required regulatory, technical and market conditions are absent to enable implementation and operation of decentralized small hydro power projects. There is no appropriate regulatory and legal framework for the integration of small hydro power into the national power

system; no incentives to stimulate investments and there are only a few Independent Power Producers (IPP) who operate obsolete SHPP constructed during the Soviet time on irrigation systems. In 2008 the Government adopted a new Law on Renewable Energy which stipulates that a special feed-in tariff will be applied for SHP (all hydro plants under 30 MW are considered “small” under the 2008 Law), but the accompanying by-laws and regulations are yet to be developed and adopted. There is also a need for up-to-date hydrological information and technical data to estimate hydro power capacity and come up with sound design. The years 2008-2009 witnessed a growing interest among national and foreign investors and partners in developing small hydro power generation capacity in Kyrgyzstan (due to its strategic location and interconnected system with other Central Asian countries): several partnership agreements (MoU and Declaration of Intent) were signed by the Government with potential investors for a total of \$ 20 million to be invested in small hydro power development until 2012, but prospects for this investment to materialize in full and at agreed time-frames remain low as long as measures to provide independent power producers with access to power grids, to create a level playing field for renewable power and to reduce the administrative burdens on Kyrgyzstan’s limited regulatory capacities are not undertaken. To address these, the Government established the Directorate for Small and Medium-scale Power Projects in the Kyrgyz Republic (DSMP) in April 2008 with a mandate to support and promote investment in small hydropower by providing a full range of information, technical and advisory services to potential investors. However, at the present time and as evidenced during the PPG implementation, DSMP does not have sufficient capacity to deal with these issues.

12. The project’s goal is to reduce GHG emissions by creating favourable legal, regulatory and market environment and building institutional and administrative capacities to promote the development of Kyrgyzstan’s abundant small hydropower potential for grid-connected electricity generation. **The objective is to assist the Government in addressing the various barriers with a view to achieving a significant increase in new small hydro power generating capacity by the close of the project, i.e. by 20 MW or a 60% increase as compared to SHP capacity established in the business-as-usual scenario.** The project will accomplish this by supporting the Government of Kyrgyzstan in:

- setting attractive and competitive business terms and conditions for investors, such as incentive-based feed-in tariff agreements, which give developers long-term stability and provide for sufficient investment return;
- streamlining and simplifying the administrative procedures for small hydro power producers and helping the DSMP in the Ministry of Energy to enforce new regulations;
- updating basic hydrological, technical and cost data to make informed investment decisions;
- facilitating implementation of the first small hydro power projects by helping to organize a fair and transparent tender process and subsequent negotiation and signature of PPA and IPP agreements and providing technical support and oversight throughout the authorisation and construction process; and
- leveraging additional financing for small hydro power projects through the Clean Development Mechanism of the Kyoto Protocol, bearing in mind that a number of external factors could jeopardize the prospects of CDM for small hydro power in Kyrgyzstan².

13. Development of small hydropower generation is one of the important mitigations options that the Government of Kyrgyzstan has endorsed and wishes to pursue for reducing greenhouse gas emissions in the country. In this connection, Kyrgyzstan’s Second National Communication to UNFCCC prepared in 2008 indicates that the energy sector is the one “...producing the main emission of greenhouse gases ... in the Republic. It is obvious, that the emissions of this section (sector) determine total emissions” (page 101). Increased use of renewable energy is recommended as one of the options in a basket of measures aimed at reversing the trend in GHG emissions.

14. The project is also in line with national priorities as outlined in the following national laws and will contribute to meeting the objectives of the Government on air pollution and energy development:

- The Law “On State Regulation and Policy in the Field of Greenhouse Gases Emission and Absorption” approved by Presidential Decree on 25 May 2007. It defines the basics of state regulation, procedures, rights,

² These factors include but not limited to: current uncertainties with regard to the future of CDM, low market price for CERs and lack of buyers’ interest in small hydro power projects, stringent additionality and eligibility requirements for hydro power, methodological complexity and availability of data for calculation of emission grid margin in Kyrgyz grid, to name but a few.

and responsibilities of public bodies, local self-governance bodies, individuals and legal entities in the field of greenhouse gases emission and absorption on the territory of the Kyrgyz Republic.

- The Law on “Environment Security Concept of the Kyrgyz Republic”, approved by Decree of the President of the Kyrgyz Republic in 2007, and which defines the priority of climate change problems for the Republic.

15. **Institutional Structure:** The Ministry of Energy (until mid-October 2009 known as Ministry of Industry, Energy and Fuel Resources) is the central body responsible for formulating and implementing the Government’s policy in the field of energy. In the specific area of renewable energy, the Ministry’s RE Unit is entrusted with formulating policy, plans and programmes for the development and utilisation of renewable energy sources and to make proposals for appropriate legislation/regulations that would promote such activities. In addition, the Ministry’s Directorate for Small and Medium-scale Power Projects, established by the Government in April 2008 (until mid-October 2009 the Directorate reported directly to the President of the Republic), is specifically tasked with the Government’s mandate to promote small hydropower development through soliciting the participation of private investors. In discharging these responsibilities, the Directorate is also responsible for implementing the Government’s programme for developing SHP until the Year 2012.

16. The project consists of five components as outlined below. It is recognised that on-the-job training will be provided to staff of the newly-created Directorate by the recruited consultants, both local and international, during the normal course of their support to the relevant project activities. This will be in addition to Component 2 that specifically deals with capacity development required by the DSMP to perform its functions effectively.

17. **Component 1:** To formulate a streamlined and comprehensive market-oriented energy policy and legal/regulatory framework for small hydropower development in the country. The expected outputs under this component are:

- Adoption and implementation of new policies streamlining land tenure and water use rights for small hydro power developers;
- Revision of the Law on Renewable Energy to define/redefine role of the Ministry of Energy and its Directorate for Small and Medium-scale Power Projects in the Kyrgyz Republic (DSMP).
- Procedures for the introduction of competition in the award of sites/concessions for development.
- Standard PPA to facilitate DSMP negotiations with independent power producers (IPPs).
- One-stop shop for issuance of construction licenses and permits to developers.

18. **Component 2:** To develop capacity within DSMP to effectively address institutional issues and to evaluate the economic and financial viability of small hydropower projects, especially within the context of a least cost planning approach and to build capacity within the Ministry’s RE Unit to monitor and enforce regulations related to SHP. The expected outputs are:

- Suitable methodology for the economic/financial evaluation of small hydropower plants.
- Standard financial evaluation methodology for calculating SHP tariffs to be paid to IPPs and the tariffs to be charged to consumers, taking account the operating and investment recovery costs of project developers.
- Incentives to be provided to project developers such as reduction/elimination of import duties/taxes on equipment, income tax holiday for a specific duration, simplification of foreign exchange regulations, making it a requirement for distribution companies to purchase **all** electricity generated by SHP, establishing a portfolio to be eventually occupied by SHP in the electricity generation mix (a sort of SHP generation target), grant of longer-term generation licenses valid for 40-50 years (rather than 25-30 years), simplifying EIA procedures for SHP, building or participating in building access roads to SHP sites ear-marked for development. All these will be operationalised by the Ministry of Energy in consultation with other Government Departments.
- In addition, the project will explore possibilities for introduction of such risk mitigation instruments as hydropower energy production guarantee (in case power production targets are not met by developers) or insurance package to safeguard developer in case of non-payment for electricity already supplied. These instruments will be proposed following detailed assessment of risk profile of the pilot projects and discussions among the Ministry of Energy, Ministry of Finance, investors and finance/insurance entities, with the latter entrusted with responsibility to operationalise and manage the scheme. No GEF funds are to be used to capitalize or cover the additional costs of the guarantees.

- Develop and validate power sector baseline study and GHG emission factor for Kyrgyzstan power grid to facilitate and reduce costs of SHP project development under CDM mechanism. Prepare PDD, conduct validation, and facilitate national approval, registration and signature of the Emission Reduction Purchase Agreement (ERPA) for the first CDM project activity in Kyrgyzstan, i.e. the bundle of SHP projects for a total of 200 MW. The list of SHP projects for inclusion in CDM package is currently being discussed with the Directorate and potential investors; it will not include the pilot SHP projects (20 MW) to be supported via the proposed GEF grant in order to avoid any potential double counting of the resulting GHG emission reductions.
- Capacity developed within the Ministry's RE Unit to monitor and enforce regulations related to SHP.

19. **Component 3:** To develop capacity within DSMP/country to assess hydrological resources, design, evaluate and implement projects, and provide maintenance and repair services. The expected outputs are:

- Programme for updating the 30-year old hydrological data.
- Guidelines and technical standards for small hydropower development.
- Capacity within DSMP to design, evaluate and implement projects.
- Local capacity for maintenance and repair services.

20. **Component 4:** To prepare full feasibility and technical design studies for the 5 small hydropower sites listed in Table 2 below (this is a preliminary list that may be subject to change on the basis of initial studies by Cotec and Seloga as per their respective framework agreements with the Government), followed by construction of the power stations. The expected outputs are:

- Reports on feasibility and design studies.
- Reports on financial closure with identified investors.
- Report on completion of construction of the 5 hydropower stations.

21. **Component 5:** To formulate an outreach programme and document/disseminate project experience/best practices/lessons learned for replication throughout the country. The expected outputs are:

- Plan to implement outreach/promotional activities targeting domestic and international investors.
- Capacity development of DSMP to monitor and document project experience.
- Published materials on project experience/best practices and lessons learned/website.

Table 2: List of small hydropower plants for development

Name	Capacity, MW	Output, MWh/yr	Type	Expected FIRR*	Pay-back**
Leninopolskaya	1.6	11,500	Rehab	14.15%	14.98
Chon-Keminskaya SHPP 1	5	35,920	New	14%	15.14
Chon-Keminskaya SHPP 2	5	35,920	New	17.45	9.93
Chon-Keminskaya SHPP-3	5	35,920	New	15.62	12.16
Karakolskaya SHPP	3	21,550	New	14.68	14.81

* Financial Internal Rate of Return ** The long pay-back periods are due to the presently low feed-in tariff of 0.02-0.025 US\$/kWh set by the Govt.

B. DESCRIBE THE CONSISTENCY OF THE PROJECT WITH NATIONAL AND/OR REGIONAL PRIORITIES/PLANS:

22. The proposed project supports the objectives of the Government set out in the Decree of the President №365 of 14 October 2008 «On specific measures of small and medium energy development in the Kyrgyz Republic» and «Small and Medium Kyrgyz Energy Development Program through 2012». The programme identifies a number of SHP projects which the Government would like to prioritize, including: 28 new small and medium-sized HPPs; 4 new small and medium-sized HPPs at the existing irrigation systems (dams and water reservoirs); rehabilitation of 9 existing HPPs (Annex F). No state funding is allocated to support programme implementation; it is envisaged that investors will implement projects based on the conducive environment for a market-based approach that the

Government wishes to create. The Directorate for Small and Medium-scale Power Projects in the Kyrgyz Republic was established by the Government in April 2008 with a mandate to support and promote investment in small hydropower by providing a full range of information, technical and advisory services to potential investors. In particular and as a component of the project, the Directorate will establish a “Service Centre” which will support design, evaluation and implementation of projects and develop local capacity for maintenance and repair services based on commercial agreements with IPPs. It is within the context of its national priorities to develop SHP that the Government solicited UNDP/GEF’s support, in its letter of 13 September 2009 from the Deputy Prime Minister (Annex H.6), with implementing the project and building capacity of the Directorate to carry out its functions as envisaged.

C. DESCRIBE THE CONSISTENCY OF THE PROJECT WITH GEF STRATEGIES AND STRATEGIC PROGRAMS:

23. The project is fully consistent with GEF-4 Strategic Priority “To promote on-grid renewable energy”. It will promote market for the supply of and demand for small hydro power in the grid-based system of Kyrgyzstan. In line with GEF requirements, “the emphasis will be upon developing policies and regulatory frameworks that provide limited incremental support to strategically important investments”, such as investment in new power generation capacity in Kyrgyzstan allowing the country to cope with its acute energy crisis in an environmentally and climate-friendly way. Further, the “host country willingness to adopt favourable policies and to follow through on the initiatives” was demonstrated by the Government of Kyrgyzstan when a Law on Renewable Energy was adopted in 2008. The proposed project will help the Government to realize the provisions of the Law, design and adopt regulations and tariffs which would level the playing field for on-grid renewable energy.

D. JUSTIFY THE TYPE OF FINANCING SUPPORT PROVIDED WITH THE GEF RESOURCES.

24. The nature of the project is policy development, capacity building and establishing a conducive environment to facilitate private sector investment. The project objective will be attained through technical assistance and facilitating third parties’ investment in new small hydropower projects. No loan or revolving-fund mechanisms are considered appropriate for this purpose, and, therefore, grant-type funding is considered as the most adequate to enable successful delivery of the project outcomes.

E. OUTLINE THE COORDINATION WITH OTHER RELATED INITIATIVES:

25. **Coordination with UN/UNDP initiatives:** The project builds on the findings of the Central Asia Regional Risk Assessment project undertaken by UNDP on behalf of the international donor community in 2008. Its objective was to assess and provide recommendations for the Governments of Central Asia to prepare for and manage the compound threats to water and energy security. The proposed project will form an integral part of the UN System response to a complex crisis in Central Asia which includes both short-term humanitarian support and longer-term development work to accelerate reform in the water-energy sector in order to minimize future security risks. The project will work closely with the on-going UNDP-EU project on Integrated Water Resources Management (IWRM) in Central Asia which is about to start a comprehensive feasibility study of the country’s hydrological potential within a trans-boundary context; one component of this project deals with the feasibility study for a pilot small hydropower station (co-financing letter attached in Annex H.3). Also, UNDP implemented during 2005-2008 a project aimed at promoting renewable energy resources for the development of remote regions. This project specifically dealt with drafting legislation entitled “Law on Renewable Energy” which was adopted in 2008 and implemented 13 pilot pico-hydro power stations ranging in capacity from 200 W to 5 kW in the Issyk-Kutskaya region. Moreover, UNDP is implementing a project funded by its MDG Carbon Facility that targets the development of SHP in the country for emission trading under the CDM modality.

26. **Coordination with private sector:** Private sector is to play the key role in project implementation. At PPG stage agreements with two potential investors, South Korean and Malaysian companies, were reached for construction of SHP with a total installed capacity up to 250 MW (co-financing letter and framework agreement are provided in Annex H.4 and H.5).

27. **Coordination with other donors:** The European Bank for Reconstruction and Development, on its part, has focused on constructing high-voltage transmission lines under a loan agreement. In addition, it is involved in supporting the Government with strategic planning in small hydropower under its “Sustainable Energy Initiative” and the creation of a conducive environment for investment in renewable energy under its “New Environmental and

Social Policy” programme. With regard to GTZ, it is implementing a project entitled “Transboundary Management of Water Resources in Central Asia” under which it is investigating the safety of the dam on the Tort-Kul reservoir and its impacts on the environment. The European Union is implementing a project entitled “Development of mini-SHP and Biogas Technologies” under which it will construct a couple of pilot 10-50 m³ biogas digesters and 4 mini-SHP with a total output of 150 kW in the Aksuisky and Tupsyky regions of Issik-Kulsky District (Oblast).

28. Coordination with the Government: The Ministry of Energy, in its letter of 1 October 2009 (Annex H.7), has indicated that it will take responsibility for coordinating all activities in small hydropower development to be implemented by EBRD and UNDP and, by extension, by the various other external partners that are supporting the Government in developing and utilising renewable energy sources. At the project level, coordination will be ensured by the Project Board (see Part III, para. C below), which will be chaired by the Ministry of Energy. In addition, the project will work closely with the recently established Agency for Development, Investment and Innovation under the President of Kyrgyzstan with a mandate to facilitate foreign and domestic investment in priority development projects and sector (such as power generation). Promotional and outreach activities under Component 5 of the project will be supported and implemented jointly with the Agency.

F. DISCUSS THE VALUE-ADDED OF GEF INVOLVEMENT IN THE PROJECT DEMONSTRATED THROUGH INCREMENTAL REASONING :

29. There is no single small hydropower plant built in Kyrgyzstan since 1970 except for one rehabilitation project in the Issyl-Kul region which was undertaken in 2008 with technical assistance from the German Government. GEF intervention is needed to remove a number of legal, regulatory and market barriers which hamper realization of the ambitious Government plans to harness the abundant potential for small hydropower development in Kyrgyzstan. Some of these barriers are:

- **Institutional:** A review of the structures of the Ministry of Energy and DSMP during implementation of the PPG revealed some inherent weaknesses with the potential for overlapping responsibilities and highlighted their lack of capacity in support of informed decision-making and implementation. Thus, they face serious challenges in creating the appropriate policy, legal and fiscal frameworks to unlock the potential of the SHP sector in the country. Consequently, unless this shortcoming is addressed through a review of their structures and capacity strengthening, the possibilities that these 2 institutions would be able to implement their respective mandates in an effective manner could be compromised.
- **Financial:** As stated in the *Energy Strategy of the Republic of Kyrgyzstan for 2008-2012*, “Investment in small hydro-power development is not a commercially attractive project at existing power tariff (0.02-0.025 US\$/kWh) with a pay-back period of 7-10years”. In fact, in Table 2 above, the pay-back periods vary from almost 10 to 15 years. The recent Programme on Mid-term Tariff Policy for 2008-2012 envisages a gradual increase in power tariffs for all consumer groups. With this increase in mind and provided that a conducive feed-in tariff policy is designed and implemented (Component 2), SHP projects can become economically attractive.
- **Technology:** Since the mid-1960s, small hydro power development was given low priority and gradually was completely abandoned in the strategy for power sector development in Kyrgyzstan, as part of the former USSR. Since that time, investments and actual projects in this sector have been extremely limited. As a result, over the 30 to 40-year time period, there is now a range of technological and capacity barriers faced by SHP developers in Kyrgyzstan ranging from the absence of experienced engineers and designers, equipment suppliers, reliable hydrological data to name just a few.
- **Regulatory:** Even though the need to create a favourable legal framework for RE is formally recognized in a number of strategic documents, respective by-laws, regulations and institutional structures to implement them are lacking or are inadequate. Specifically, in 2008 the Government adopted a new Law on Renewable Energy which stipulates that a special feed-in tariff will be applied for SHP when power purchase agreements are signed with project developers. However, the principles and methodology for tariff definition are unknown and need to be developed and specified in the respective by-laws in order to create attractive and transparent business terms and conditions for potential investors. With the exception of electricity generation for own use, any legal entity or individual engaging in the generation, transmission, distribution or sale of electricity must first obtain a license issued by the Government. Licenses are issued by the State Energy Administration and the

rules, criteria and process to obtain them are the same for 1 MW, 10 MW and 1,000 MW power plants, which make their implementation prohibitively time-consuming and unnecessarily expensive for small hydropower producers. Experience from a pilot SHP project built under German technical assistance showed that out of the 18 months required for project development and implementation, only 5 were spent on actual construction works while the remaining 13 months were required to obtain all required approval, licenses and permits.

- **Data and information:** Currently, no research activities are being conducted in Kyrgyzstan to study/update hydrological potential and parameters of small rivers. This is primarily due to lack of financing. Consequently, most of the studies are outdated and so are existing equipment and modelling software. Several hydrological survey stations were closed and data collection at sites stopped as well. There are only two institutes dealing with hydrological studies and both lack adequate equipment and materials, the human resource base and a stable source of financing to engage in regular data collection and analysis.

30. A summary of the barriers and the strategy for addressing them are presented in Table 3 below:

Table 3: Summary of barriers and Strategy for addressing them.

Barrier	Present Situation	Strategy for addressing barrier
Institutional	Potential overlapping of responsibilities between RE Unit and Directorate. Insufficient human resource capacity to perform effectively.	Component 1: Review of structures of both entities and redefine/refine their appropriate roles and staffing requirements. Components 2-5: Formulate and implement capacity strengthening programme to address specific barriers
Regulatory	Absence of consolidated set of regulations governing SHP. Absence of procedures for award of sites/concessions to developers.	Component 1: Develop a compendium of regulations related to SHP development. Design and implement procedures for award of sites/concessions to developers. Set up one-stop shop to speed up issuance of construction licenses and permits.
Financial	Low feed-in tariffs. Non-existence of financial incentives and risk-mitigation instruments.	Component 2: Design and implement market-oriented tariff structure. Design and implement financial incentives and risk-mitigation instruments.
Technology	Lack of sufficient knowledge on latest developments in SHP technology. Absence of guidelines and technical standards for SHP. Scarcity of experienced SHP equipment designers, installers and maintenance personnel.	Components 3, 5: Bring local staff up to date with latest developments in SHP equipment design and construction. Formulate guidelines and technical standards for SHP. Formulate and implement capacity development programme for equipment designers, installers and maintenance personnel.
Data and Information	Outdated hydrological data.	Components 3, 5: Inadequate equipment and insufficient human resource capacity to collect and interpret data. Formulate and implement programme for updating hydrological data. Procure and install data loggers, develop software for data interpretation and strengthen human resource capacity.

G. INDICATE RISKS, INCLUDING CLIMATE CHANGE RISKS, THAT MIGHT PREVENT THE PROJECT OBJECTIVE(S) FROM BEING ACHIEVED AND OUTLINE RISK MANAGEMENT MEASURES:

Risk	Assessment	Mitigation
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Institutional: reluctance in some quarters of the Government to introduce the necessary policies/regulations in support of small hydropower development	Low	The Government of Kyrgyzstan is strongly motivated to increase and diversify its generation capacity through SHP plants and is driven by an acute energy crisis and related socio-economic concerns. Hence, it will ensure that all its associated departments get on board.
Financial: lack of commitment from private and public sector to invest in RE	Low	Already during the project design stage several investors (national and foreign) expressed their interest and commitment to invest in small hydropower provided appropriate legal and regulatory provisions are created
Technical: lack of technical information, knowledge and skills to design and implement small hydro power projects	Medium	Provision of technical assistance for RE-related capacity development in public and private sector will constitute one of the most important project components, which will be delivered through a combination of local and international expertise.

H. EXPLAIN HOW COST-EFFECTIVENESS IS REFLECTED IN THE PROJECT DESIGN:

31. It is assumed that while start of construction on all 5 SHP stations will be staggered, construction works will run concurrently; thus, there will be no need to await completion of one power station before work on the next one can start. Under this scenario, the first power plant of 1.6 MW (scheduled for reconstruction) is expected to come on line in March 2011, i.e. 15 months after project initiation and the remaining 4 will become operational at intervals of 3 months thereafter. Hence, by March 2012, all 5 SHP plants would be fully operational. Accordingly and assuming a plant load factor of 75%, electricity generation will be 32,523 MWh during Year 2 of the project, 123,845 MWh during Year 3 and 128,772 MWh during Year 4 (final year) of the project. Thus, by project completion, some 285,130 MWh would have been generated and an annual generation of 128,772 MWh will be sustained over an expected 25-year projected life of the equipment. All this hydro generation, if not implemented, would have otherwise been accomplished through thermal power stations burning locally available coal or imported diesel fuel, with an emission factor of 0.875 tCO₂/MWh. Consequently, during the 4-year project period, almost 250,000 tons of CO₂ would have been avoided or equivalent to \$ 4 of GEF funds per tCO₂. Furthermore, these 5 SHP plants will continue avoiding 112,676 tons of CO₂ annually during their remaining 21-23 years of project life. Finally, the estimated total replication potential of SHP in Kyrgyzstan of 570-900 MW makes up for a substantially higher reduction of CO₂ emissions. The Table below summarises total CO₂ emissions reduction during implementation of the project and beyond.

Table 4: Project GHG emission reduction impact

Time-frame.	Up to project completion (4-year project duration).	Post-project without replication (25-year equipment projected life).	Post-project with replication (25-year equipment projected life).
Total CO ₂ emissions (tons)	250,000	2,478,860	>100,000,000

PART III: INSTITUTIONAL COORDINATION AND SUPPORT

A. INSTITUTIONAL ARRANGEMENT:

32. The project will be implemented by the Directorate for Small and Medium-scale Power Projects in the Kyrgyz Republic under the overall guidance of the Ministry of Energy. However, in order to successfully implement the various components of the project, it will need to solicit the participation of several Government Ministries and

Departments in order to create the conducive market-oriented environment that is being sought to promote private sector participation in small hydropower development. Table 5 below provides a list of the project components and the corresponding Government and other entities, in addition to the Ministry of Energy and the State Agency for Environmental Protection and Forestry, that need to be involved.

Table 5: Project Components and Entities Involved

Component	Entities Involved
1. To formulate a streamlined and comprehensive market-oriented energy policy and legal/regulatory framework for small hydropower development in the country.	Ministry of Natural Resources Ministry of Economic Regulation National Agency of Local Self-Government Affairs Ministry of State Property Joint Stock Electricity Generating Company Joint Stock Electricity Distribution Companies
2. To develop capacity within DSMP to effectively address institutional issues and to evaluate the economic and financial viability of small hydropower projects, especially within the context of a least cost planning approach and to build capacity within the Ministry's RE Unit to monitor and enforce regulations related to SHP.	Ministry of Finance Ministry of Economic Regulation State Customs Inspection State Tax Committee Insurance/Reinsurance companies
3. To develop capacity within DSMP/country to assess hydrological resources, design, evaluate and implement projects, and provide maintenance and repair services.	Ministry of Education and Science Ministry of Natural Resources Department of Technical and Vocational Training Power generation equipment manufacturers/ maintenance service providers
4. To prepare full feasibility and technical design studies for the 5 small hydropower sites listed in Table 2 above, followed by construction of the power stations.	Ministry of Ministry of Natural Resources National Agency on Local Self –Government Affairs NGOs
5. To formulate an outreach programme and document/disseminate project experience/best practices/lessons learned for replication throughout the country.	National Agency on Local Self –Government Affairs Ministry of Education and Science NGOs

B. PROJECT IMPLEMENTATION ARRANGEMENT:

33. The project will be implemented through the NEX execution modality by the Directorate for Small and Medium-scale Power Projects in the Kyrgyz Republic under the overall guidance of the Ministry of Energy. The Directorate will appoint a National Project Director who will assume overall responsibility for project implementation, ensure the delivery of project outputs and the judicious use of project resources. The National Project Director will be assisted by a Programme Management Unit headed by a Programme Manager (PM). The PM will be responsible for overall project coordination and implementation, consolidation of work plans and project papers, preparation of quarterly progress reports, reporting to the project supervisory bodies, and supervising the work of the project experts and other project staff. The PM will also closely coordinate project activities with relevant Government and other institutions and hold regular consultations with project stakeholders.

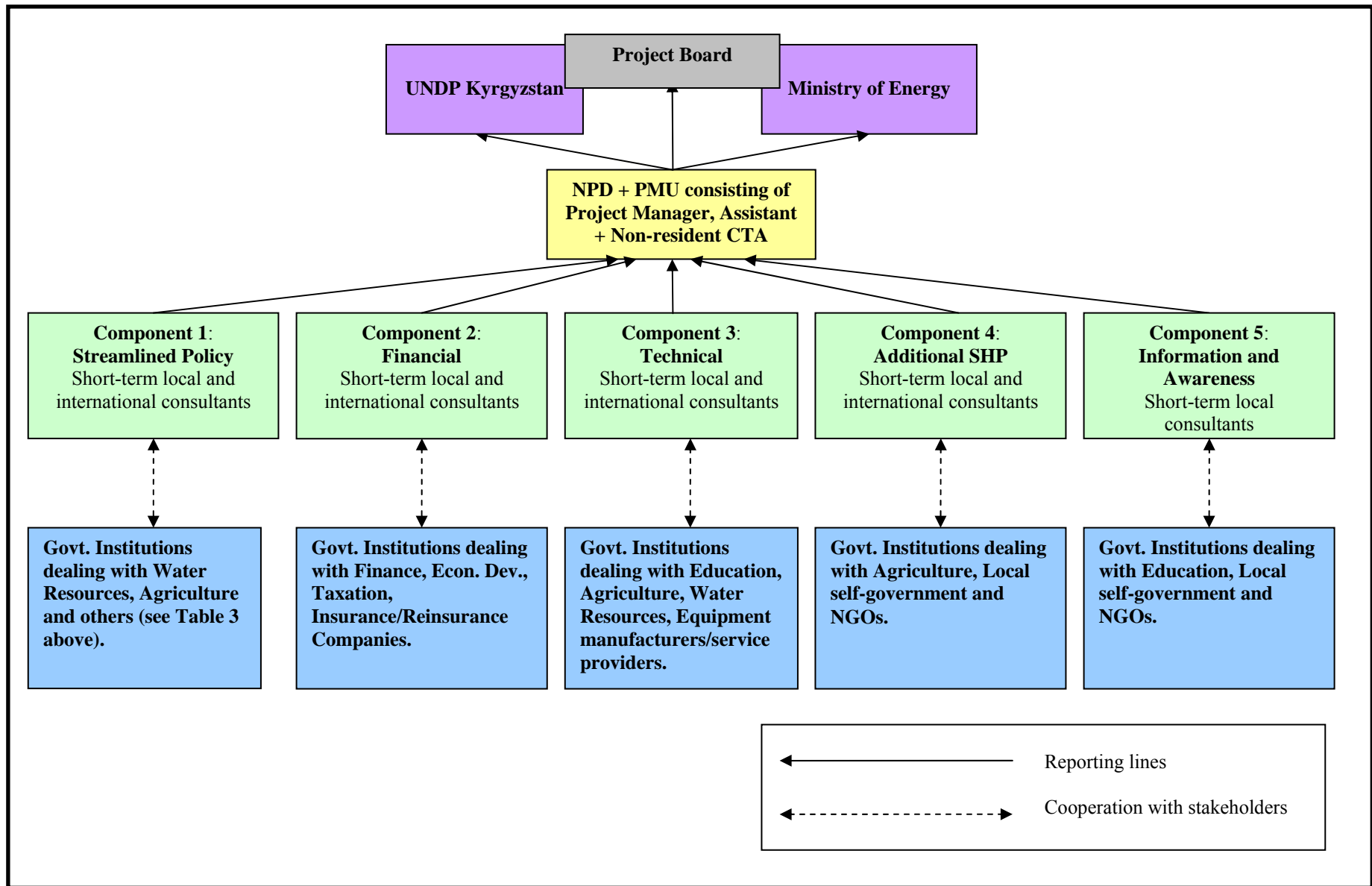
34. The PM will benefit from the focused inputs of a part-time non-resident Chief Technical Adviser (CTA) whose main task will be to provide expert advisory services and technical assistance to the PM and other project experts, as

and when required. In addition, a Project Assistant (PA) will be recruited to support the PM on administrative and financial issues.

35. National and international consultancy services will be called in for specific tasks under the various project components. These services, either of individual consultants or under sub-contacts with consulting companies, will be procured in accordance with applicable UNDP/GEF guidelines (see Annex C for the list of envisaged local and international consultants).

36. A Project Board (PB), chaired by the Ministry of Energy will be established to provide strategic directions and management guidance to project implementation. It will consist of representatives of the relevant ministries and state committees/departments participating in the project, the UNDP Country Office, the National Project Director as well as representatives of the NGO community. Representatives of the private sector may be invited to participate.

37. Finally, the UNDP CO will provide specific support services for proper project implementation, as required, through its Administrative, Programme and Finance Units. An Organogramme representing the implementation arrangement is presented below:



PART IV: EXPLAIN THE ALIGNMENT OF PROJECT DESIGN WITH THE ORIGINAL PIF:

38. The project concept and design during the PIF formulation were based on the best information available at that point in time regarding the barriers to a market-oriented approach for small hydropower development. However, during implementation of the PPG, it became clear that while the project design was still sound, the original project components needed to be adjusted in order to fully address all the barriers that could affect smooth implementation of the project and to provide for a logical sequence of activities that would be required under each individual project component. For ease of reference, the “new” and “old” (as elaborated in the PIF) project components are displayed in the Table below:

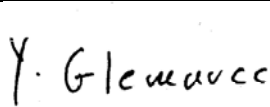
“New” Project Components	“Old” Project Components
1. Policy, Institutional and Regulatory Framework for SHP.	1. Institutional and Regulatory Framework for SHP.
2. Financial.	2. Hydrological and Technical Data for SHP projects.
3. Technical.	3. One-stop shop for SHP investors.
4. Additional SHP capacity.	4. Small Hydropower Projects.
5. Information and Awareness.	

39. The main differences between the 2 sets of components are that the “Policy, Institutional and Regulatory Framework” component has been strengthened and the “old” “One-stop shop for SHP investors” has been merged into it, a separate “Financial” component has been introduced to address issues related to IPPs/PPAs/tariffs, the “old” Hydrological and Technical data” and “Small Hydropower Projects” components have been renamed “Technical” and “Additional SHP capacity” components, respectively so as to sharpen the focus of the issues that they will address and, finally, an “Information and Awareness” component has been introduced to deal with promotional activities and dissemination of lessons learned.

40. In summary, there is no major departure in project design from what was outlined in the PIF; only minor adjustments have been made with regard to the substance and logical sequence of activities for addressing the barriers.

PART V: AGENCY(IES) CERTIFICATION

This request has been prepared in accordance with GEF policies and procedures and meets the GEF criteria for CEO Endorsement.

Agency Coordinator, Agency name	Signature	Date (Month, day, year)	Project Contact Person	Telephone	Email Address
Yannick Glemarec UNDP-GEF Executive Coordinator		November 17, 2009	Marina Olshanskaya Regional Technical Advisor	+421 2 59 337 285	marina.olshanskaya@undp.org

LIST OF ANNEXES

Annex A	Project Results Framework
Annex B	Responses to Project Reviews
Annex C	Consultants to be recruited for the project
Annex D	Status of implementation of project preparation activities and the use of funds
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ANNEX A: PROJECT RESULTS FRAMEWORK

Project Strategy					
Goal To reduce GHG by creating a favourable market environment to promote the country's development of its abundant small hydropower potential.					
	Indicator	Baseline	Target	Sources of Verification	Assumptions
Objective					
To assist the Government in addressing the barriers to significantly increase grid-connected small hydropower capacity.	285,140 MWh of electricity generated by project completion and 250,000 tons of CO ₂ avoided.	GHG in the electricity generation sector scheduled to increase from 1.75 million tons/year to almost 3 million tons/year by the year 2020. Negligible investments taking place in the grid-connected small hydropower sector.	Investment in at least 5 small hydropower sites by end of project. Reduction of 250,000 tons of CO ₂ over the 4-year MSP project life cycle.	Project's annual reports, GHG monitoring and verification reports. Project final evaluation report.	Continued commitment of project partners, including Government agencies and investors/developers.
Outcomes					
Outcome 1: Streamlined and comprehensive market-oriented energy policy and legal/regulatory framework for small hydropower development.	Framework finalized and available for consultation by potential investors.	None available at the present time.	To be completed within 6 months of project initiation and approved by Government by the end of year 1.	Published documents. Government decrees/laws.	Commitment of the various Government institutions.
Output 1.1: Report streamlining land tenure, water use rights and review of Law on Renewable Energy to define/redefine role of DSMP.	Report confirming that policy and framework arrangements are in place.	Overlapping responsibilities of various Government institutions make the decision process very complicated.	To be completed within 6 months of project initiation and approved by the Government by the end of year 1.	Published documents.	Commitment of the various Government institutions.
Output 1.2: Procedures for the introduction of competition in the	Guidelines available.	Not available at the present time.	To be completed within 6 months of project	Published documents.	Commitment of the various Government

Project Strategy					
Goal To reduce GHG by creating a favourable market environment to promote the country's development of its abundant small hydropower potential.					
	Indicator	Baseline	Target	Sources of Verification	Assumptions
award of sites/concessions for development.			initiation and approved by the Government by the end of year 1. Competitive bidding for sites/concession areas completed by the end of 1.5 years after project start.	Signed agreements.	institutions and project developers.
Output 1.3: Standard PPA to facilitate DSMP negotiations with IPPs.	Document available.	Not available at the present time.	To be completed within 6 months of project initiation and approved by the Government by the end of year 1. All PPAs for 20 MW of capacity signed by the end of 1.5 years after project start.	Published documents. Signed agreements.	Continued investor interest.
Output 1.4: One-stop shop for issuance of construction licenses and permits to developers.	One-stop shop is operational. Information brochure and website are available.	Under the business-as-usual scenario, the average time to secure all required construction licenses and permits are 13 months.	All construction licenses and permits are issued within 4-6 months.	Signed documents.	Continued investor interest.
Outcome 2: Capacity available within DSMP to evaluate the economic and financial viability of small hydropower projects and within the Ministry's RE Unit to monitor and enforce regulations related to SHP.	Number of DSMP/Ministry staff who participated in and successfully completed capacity development programme.	None available at the present time.	5 projects evaluated by Government staff by the end of year 1. Six Government staff trained during first 6 months of project.	Training modules/number of staff trained. Project report.	Concerned institutions willing to release staff for training.

Project Strategy					
Goal To reduce GHG by creating a favourable market environment to promote the country's development of its abundant small hydropower potential.					
	Indicator	Baseline	Target	Sources of Verification	Assumptions
Output 2.1: Suitable methodology for the economic/financial evaluation of small hydropower plants.	Methodologies applied by DSMP	Not available at the present time.	To be completed within 6 months of project initiation and applied by Government thereafter.	Project report.	Cooperation of Government entities and staff.
Output 2.2: Standard financial evaluation methodology for calculating small hydropower tariffs to be paid to IPPs/to be charged to consumers.	Methodologies applied by DSMP	No such evaluation methodology available.	To be completed within 6 months of project initiation and applied by Government thereafter.	Project documentation.	Cooperation of Government entities and staff.
Output 2.3: Financial and other incentives to be provided to project developers.	Document available.	No comprehensive document available at the present time.	To be completed within 6 months of project initiation and applied by Government thereafter.	Project documentation.	Cooperation of Government entities.
Output 2.4: Guarantee and risk mitigation instruments that facilitate IPP investment.	Instruments developed.	No such instruments available at the present time.	Instruments designed in year 1 and applied to IPP investments by year 2.	Project reports.	Lending institutions ready to come on board.
Output 2.5: PIN and PDD to pursue options under CDM.	Emission Reduction Purchase Agreements signed	None available to date.	To be completed by the end of year 2.	Project documentation.	Cooperation of Government entities.
Output 2.6: Capacity developed within the Ministry's RE Unit to monitor and enforce regulations related to SHP.	Number of Ministry staff successfully trained.	None available at the present time.	Five to six Government staff trained during first 6 months of project.	Number of staff trained. Project report.	Cooperation of Ministry and staff.

Project Strategy					
Goal To reduce GHG by creating a favourable market environment to promote the country's development of its abundant small hydropower potential.					
	Indicator	Baseline	Target	Sources of Verification	Assumptions
Outcome 3: Capacity available to assess hydrological resources, design, evaluate and implement projects, and provide maintenance and repair services.	Teams trained in various categories of activities. Technical assessment of projects. Guidelines for maintenance, repair and modular SHP design.	No such activity being implemented.	5 projects technically assessed in year 1. Manual for operations & maintenance developed in year 1, O&M procedures applied in at least 5 sites by end of project. 40 people trained in the various categories by the end of the project.	Project reports.	
Output 3.1: Programme for updating the 30-year old hydrological data.	Instrumentation to measure river flow installed. Software developed for interpretation of data.	Hydrological data presently available date back to the 1970s.	Update of 5 sites (in addition to the 5 targeted for development) completed by the end of project.	Project documentation.	Cooperation of concerned Government institutions.
Output 3.2: Guidelines and technical standards for small hydropower development.	Published guidelines.	Not presently available.	Completed within first 6 months of project. Applied in 5 project development sites.	Project reports.	Participation of Government institutions in drafting guidelines.
Output 3.3: Capacity developed within DSMP to design, evaluate and implement projects.	Capacity development material available.	Not presently available.	Six DSMP staff trained during first 6 months of project.	Project documentation.	Participation of Government entities in training programme.
Output 3.4: Local capacity for maintenance and repair services.	Availability of qualified and certified companies for maintenance and repair services.	None available now.	30 people trained by the end of the project.	Project reports.	Availability of people with basic technical education.

Project Strategy					
Goal To reduce GHG by creating a favourable market environment to promote the country's development of its abundant small hydropower potential.					
	Indicator	Baseline	Target	Sources of Verification	Assumptions
Outcome 4: Full feasibility and technical design studies for 5 small hydropower sites followed by construction of power stations.	Feasibility reports.	Not presently available.	Construction of 5 small hydropower stations completed by the end of the project.	Site visits to power stations. Project reports.	Commitment and participation of Government institutions and project developers.
Output 4.1: Reports on feasibility and design studies.	Reports available.	Non-existent at the present time.	Completed within 9 months of project start.	Project documentation.	All data made available to consultants.
Output 4.2: Reports on financial closure with identified investors.	Reports available.	Not presently available.	Completed within 12 months of project start.	Project reports.	Complete socio-economic survey of targeted population is undertaken.
Output 4.3: Report on completion of construction of the 5 hydropower stations.	Completion report.	No construction is being undertaken.	Five small hydropower stations constructed by the end of project. 130.5 GWh of electricity generated annually at project end.	Site visits and project reports.	Supportive institutional, legal and regulatory framework.
Outcome 5: Outreach programme and dissemination of project experience/best practices/lessons learned for replication throughout the country.	Outreach programme formulated. Project experience compiled, analyzed and disseminated.	Lack of sufficient information to pursue programme.	8-10 projects initiated in other areas of Kyrgyzstan within 3 years of MSP completion.	Project final report and web site.	Growth of programme will be sustained.
Output 5.1: Plan to implement outreach/promotional activities targeting domestic and international investors.	Plan available.	No such plan available.	Completed within 6 months of project initiation.	Project documentation.	

Project Strategy					
Goal To reduce GHG by creating a favourable market environment to promote the country's development of its abundant small hydropower potential.					
	Indicator	Baseline	Target	Sources of Verification	Assumptions
Output 5.2: Capacity development of DSMP to monitor and document project experience.	Capacity development material prepared.	No capacity development programme.	10 Government staff of trained by the end of project.	Project reports.	Appointment of staff by Government.
Output 5.3: Published materials on project experience/best practices and lessons learned.	Project experience and best practices compiled, published and available on website.	Lack of information on best practices and lessons learned.	Completed within 3 months of project end.	Project documentation and web site.	

ANNEX B: RESPONSES TO PROJECT REVIEWS (from GEF Secretariat and GEF Agencies, and Responses to Comments from Council at work program inclusion and the Convention Secretariat and STAP at PIF)

Provided separately

ANNEX C: CONSULTANTS TO BE HIRED FOR THE PROJECT USING GEF RESOURCES

Assignments	\$/ person week	Estimated person weeks	Tasks to be performed	Source of Funding (pl. refer to the “Notes” column of Annex E for info on the source of funding for each assignment).
For Project Management				
Local Consultants				
Project Manager	370	135	Over-all Project Management (see TOR attached to UNDP-GEF Project Document for full description of tasks)	15)
For Technical Assistance				
Local Consultants				
Prepare report streamlining land tenure, water use rights and review of Law on Renewable Energy to define/redefine role of DSMP.	250	60	Review existing laws, enforced by various Government Ministries/Agencies, related to land tenure, water use rights, etc. to determine their potential conflict with small hydropower development. Prepare a comprehensive document consolidating all the various laws and draft recommendations for making them “hydropower friendly”. Undertake discussions with the various Government Ministries/Agencies to secure their concurrence to a revised and simplified set of laws.	2)
Set up a One-stop shop for issuance of construction licenses and permits to developers.	250	50	Determine the staffing requirements of the one-stop shop. Draft profiles of staff to service the one-stop shop. Draft a comprehensive information package to attract investors. Guide investors through a simplified set of rules to register, obtain licenses, make them aware of instruments available to reduce investment risks, customs duties and tax holidays on capital equipment, income tax holiday for a specific duration, attractive hydropower tariffs, etc.	2)
Participate in developing suitable methodology for the economic/financial evaluation of small	250	25	Support the development of suitable methodology, in excel format, to undertake least cost/economic analysis of options	4)

hydropower plants.			and to undertake financial analysis to determine IRR, NPV, etc. Assist international consultants in providing training to selected Directorate staff in performing such analyses.	
Facilitate development of standard financial evaluation methodology for calculating small hydropower tariffs to be paid to IPPs/to be charged to consumers.	250	25	Support the development of a standard methodology for the transparent determination of hydropower tariffs, drafting of tariffs to be paid to IPPs and tariffs to be paid by consumers. Support international consultants in providing training to selected Directorate staff in tariff determination.	4)
Facilitate formulation of financial and other incentives to be provided to project developers.	250	30	Support the drafting of guidelines for incentives to be provided to project developers.	4)
Participate in developing guarantee and risk mitigation instruments that facilitate IPP investment.	250	25	Support the international consultants in the design of a hydropower energy production guarantee in case power production targets are not met by developers and guarantee and risk mitigation instruments, e.g. non-payment by EDC to developer for electricity already supplied.	4)
Develop capacity within the Ministry's RE Unit to monitor and enforce regulations related to SHP.	250	27	Formulate a capacity development programme to train the Ministry's RE Unit staff to monitor and enforce regulations related to SHP. Participate in the implementation of the capacity development programme.	4)
Formulate and initiate a programme for updating the 30-year old hydrological data.	250	30	Identify sites for the installation of hydrological data loggers.. Install instrumentation at the selected sites. Undertake data collection and processing over, at least, a 1-year period (a longer period is preferred).	8)
Develop guidelines and technical standards for small hydropower development.	250	25	Support international consultants in developing a set of guidelines and technical standards suitable for the Kyrgyzstan situation, including modular designs.	8)

			Discuss this set of guidelines and technical standards with Directorate to seek its concurrence.	
Formulate and implement a capacity development plan within DSMP to design, evaluate and implement projects.	250	30	Formulate a capacity development programme for selected Directorate staff to design, evaluate and implement projects. Prepare inter-active training materials for participants. Participate in the implementation of the capacity development programme.	8)
Formulate and implement a plan for local capacity development for maintenance and repair services.	250	27	Formulate a capacity development programme to train local technicians to undertake civil and electro-mechanical repairs. Assess training facilities already existing within the country and make recommendations for strengthening them to undertake repairs on civil and electro-mechanical equipment at power stations. Prepare inter-active training modules for technicians. Participate in the implementation of the capacity development programme.	8)
Implement activities associated with feasibility and design studies.	250	25	Formulate terms of reference for undertaking full feasibility and design studies at the 5 identified sites. Issue request for proposals to a short-list of qualified consulting companies. Evaluate proposals received and recommend award contract to successful bidder.	11)
Facilitate financial closure with identified investors.	250	35	Assist the Directorate and involved Electricity Distribution companies in reaching all necessary agreements with developers to enable the latter to commence construction.	11)
Support Directorate and developers during the process leading to completion of construction of the 5 hydropower stations.	250	35	Assist the Directorate/developers with the preparation of tender documents for the construction of the 5 hydropower stations, issuance of request for proposals for turn-key works, facilitate discussions among stakeholders and certify completion of works.	11)
Formulate and	250	35	Formulate plan to implement	14)

implement plan for outreach/promotional activities targeting investors.			outreach/promotional activities targeting investors. Prepare outreach/promotional material. Implement outreach/promotional activities through personal contacts, news media and project web site.	
Formulate and implement capacity development plan for DSMP to monitor and document project experience.	250	35	Formulate a capacity development programme for selected Directorate staff to monitor and document project experience. Prepare inter-active training materials for participants. Participate in the implementation of the capacity development programme.	14)
Prepare and publish materials on project experience/best practices and lessons learned.	250	38	Prepare report on project experience/best practices and lessons learned. Disseminate project overall results, experiences and lessons learned at the national level. Organize a national level seminar to present the lessons learned to stakeholders.	14)
International Consultants				
Chief Technical Adviser – Small Hydropower Development.	3,000	40 (as CTA will provide services towards all project outcomes, his/her services are pro-rated across them all).	Provide expert advisory services and technical inputs to assist the local experts in formulating a streamlined policy, legal and regulatory framework for the development of small hydropower, design of modules for capacity building and training measures on various aspects of small hydropower development Support formulation of plan to implement outreach/promotional activities targeting investors. Draft outreach/promotional material. Implement outreach and promotional activities through personal contacts, news media and project website. Support formulation of a capacity development programme for selected Directorate staff to monitor and document project experience. Prepare inter-active training materials for participants. Participate in the implementation	1), 3), 7), 10), 13)

			of the capacity development programme	
Support preparation of report on streamlining land tenure, water use rights and review of Law on Renewable Energy to define/redefine role of DSMP.	3,750	6	Support local consultants in reviewing existing laws, enforced by various Government Ministries/Agencies, related to land tenure, water use rights, etc. to determine their potential conflict with small hydropower development. Support preparation of a comprehensive document consolidating all the various laws and draft recommendations for making them “hydropower friendly”. Undertake discussions with the various Government Ministries/Agencies to secure their concurrence to a revised and simplified set of laws.	1)
Define procedures for the introduction of competition in the award of sites/concessions for development.	3,750	15	Prepare complete bidding documents for the award of sites/concessions for development. Prepare detailed evaluation criteria, including weight age allocated to individual components. Develop capacity of Directorate staff on evaluation of sample proposals.	1)
Formulate standard PPA to facilitate DSMP negotiations with IPPs.	3,750	10	Draft standard PPA contract that would form the basis for Directorate negotiations with IPPs. The contract will include issues of obtaining legal rights by IPPs for land use and access for construction, operation and maintenance, negotiating and securing production risk guarantee, etc. Provide training to selected Directorate staff in contract negotiation.	1)
Develop suitable methodology for the economic/financial evaluation of small hydropower plants.	3,750	5	Develop suitable methodology, in excel format, to undertake least cost/economic analysis of options. For the option selected, develop suitable methodology, in excel format, to undertake financial analysis to determine IRR, NPV, etc. with flexibility to undertake sensitivity analysis.	5)

			Provide training to selected Directorate staff in performing such analyses.	
Formulate standard financial evaluation methodology for calculating small hydropower tariffs to be paid to IPPs/to be charged to consumers.	3,750	5	Develop a standard methodology for the transparent determination of hydropower tariffs. Draft tariffs to be paid to IPPs, taking into consideration the site to be developed. Draft tariffs to be paid by consumers, taking into account the costs of providing them with electrical service and recovering investment, and taking into consideration their capacity and willingness to pay. Provide training to selected Directorate staff in tariff determination.	5)
Formulate financial and other incentives to be provided to project developers.	3,500	5	In consultation with Government authorities, draft guidelines for incentives to be provided to project developers. These could include reduction/elimination of import duties/taxes on equipment, income tax holiday for a specific duration, simplification of foreign exchange regulations, etc.	5)
Develop guarantee and risk mitigation instruments that facilitate IPP investment.	3,750	7	Design, through discussions with Electricity Distribution Companies (EDC) and potential investors, a hydropower energy production guarantee in case power production targets are not met by developers. Design, through discussions with the Government and potential developers, guarantee and risk mitigation instruments, e.g. non-payment by EDC to developer for electricity already supplied. Conduct negotiations with finance entities/insurance companies to secure their concurrence to provide appropriate coverage and draft sample documents.	3)
Formulate and initiate a programme for updating 30-yr old hydrological data.	3,750	4	Draft specifications of hydrological instrumentation for river flow measurement. Procure instrumentation for installation at 5 potential sites, initially. Identify and adapt, if required,	9)

			software for hydrological data interpretation. Formulate a training programme for Directorate staff.	
Develop guidelines and technical standards for SHP development.	3,750	4	Review guidelines and technical standards for small hydropower development being used internationally and in other CIS/neighbouring countries. Develop a set of guidelines and technical standards suitable for the Kyrgyzstan situation, including modular designs. Discuss this set of guidelines and technical standards with Directorate to seek its concurrence.	7)
Formulate programme for capacity development within DSMP to design, evaluate and implement SHP projects.	3,750	2	Formulate a capacity development programme for selected Directorate staff to design, evaluate and implement projects. Prepare inter-active training materials for participants. Participate in the implementation of the capacity development programme.	7)
Develop criteria for evaluating feasibility and design studies.	3,750	11	Develop criteria to be used by directorate to evaluate feasibility and design studies. Provide training to Directorate staff in evaluation of feasibility and design studies.	10)
Support Directorate in reaching financial closure with identified investors.	3,750	8	Support Directorate in its discussions with investors to facilitate financial closure. Prepare documentation required by Directorate to support its discussions with investors.	12)
Support Directorate in monitoring construction of SHPs.	3,750	40	Provide monitoring support to Directorate during construction of SHPs until testing and commissioning. Provide training to Directorate staff in monitoring activities.	12)
International consultant for mid-term evaluation	3,000	2	Determine progress being made towards the achievement of outcomes and identify course correction to ensure a high success rate of delivery of the expected results. The evaluation team will test and confirm the key hypotheses underlying the project,	13)

			reassess risks and assumptions, focus on the effectiveness, efficiency and timeliness of project implementation; will highlight issues requiring decisions and actions; and will present initial lessons learned about project design, implementation and management. Findings of this review will be incorporated as recommendations for enhanced implementation during the final half of the project's term.	
International consultant for final evaluation	3,000	2	In accordance with UNDP and GEF guidance, to focus on the delivery of the project's results as initially planned and re-directed, as appropriate, after the mid-term evaluation. The final evaluation will look at impact and sustainability of results, including the contribution to capacity development and the achievement of global environmental goals. The final evaluation should also provide recommendations for follow-up activities, and the report will feature management response to the issues raised.	13)

* Provide dollar rate per person week. ** Total person weeks needed to carry out the tasks.

ANNEX D: STATUS OF IMPLEMENTATION OF PROJECT PREPARATION ACTIVITIES AND THE USE OF FUNDS

A. EXPLAIN IF THE PPG OBJECTIVE HAS BEEN ACHIEVED THROUGH THE PPG ACTIVITIES UNDERTAKEN.

The PPG objective was fully achieved. The proposed activities were implemented successfully and they allowed for sufficient data collection and outreach to key stakeholders. As a result, the project design has been refined and enhanced to ensure that it both reflects the most complete possible current information on existing legal and regulatory framework, barriers and capacity gaps to enable on-grid SHP generation, GHG emission in Kyrgyz Power sector and that it best meets the needs of the project beneficiaries and reflects the input of all relevant experts and officials.

B. DESCRIBE FINDINGS THAT MIGHT AFFECT THE PROJECT DESIGN OR ANY CONCERNS ON PROJECT IMPLEMENTATION, IF ANY:

The findings of the PPG stage led to re-visiting the original project components and the incorporation of appropriate corrective measures/ adjustments in order to fully address all the barriers that could affect smooth implementation of the project and to provide for a logical sequence of activities that would be required under each individual project component. Apart from that, no other concerns that could negatively affect implementation of the MSP were noted.

C. PROVIDE DETAILED FUNDING AMOUNT OF THE PPG ACTIVITIES AND THEIR IMPLEMENTATION STATUS IN THE TABLE BELOW:

<i>Project Preparation Activities Approved</i>	<i>Implementation Status</i>	<i>GEF Amount (\$)</i>				<i>Co-financing (\$)</i>
		<i>Amount Approved</i>	<i>Amount Spent To date</i>	<i>Amount Committed</i>	<i>Uncommitted Amount*</i>	
Analysis of existing legal and regulatory framework, barriers and capacity gaps to enable on-grid RE generation.	Complete	10,000	1,800	8,200	0	10,000
Baseline study of GHG emission in Kyrgyz Power sector.	Complete					30,000
Stakeholder Engagement and Consultation.	Complete					10,000
Identification of potential investors.	Complete	2,500	2,500			
Project Scoping and Definition.	On-going	37,500		37,500	0	
Total		50,000	4,300	45,700	0	50,000

* Any uncommitted amounts should be returned to the GEF Trust Fund. This is not a physical transfer of money, but achieved through reporting and netting out from disbursement request to Trustee. Please indicate expected date of refund transaction to Trustee.

Annex E: Total Budget and Work Plan

Award ID:	Tbd
Project ID:	Tbd
Award Title:	GEF 3134 CC MSP: Small Hydro Power Development
Business Unit:	KGZ 10
PIMS Number	3134
Project Title:	GEF 3134 CC MSP: Small Hydro Power Development
Implementing Partner (Executing Agency)	Ministry of Energy, DSMP (NEX)

GEF Outcome/Atlas Activity	Responsible Party	Fund ID	Donor Name	Atlas Budgetary Code	ATLAS Budget Description	Amount Year 1 (USD)	Amount Year 2 (USD)	Amount Year 3 (USD)	Amount Year 4 (USD)	Total (USD)	Notes*
Outcome 1 Streamlined and comprehensive market-oriented energy policy and legal/regulatory framework for small hydropower development.	DSMP	62000	GEF	71200	International Consultants	88,000	28,000	7,650	8,000	131,650	1)
				71300	Local Consultants	10,000	10,000	3,750	3,500	27,250	2)
				72100	Contractual services					0	
				71600	Travel	1,650	1,650	1,650	1,650	6,600	
				74500	Misc.	500	500	500	500	2,000	
				74200	Audio, video and print production costs			1,000	1,500	2,500	
					Total Outcome 1	100,150	40,150	14,550	15,150	170,000	
Outcome 2 Capacity available within DSMP to evaluate the economic and financial viability of small hydropower projects and within the Ministry's RE Unit to monitor and enforce regulations related to SHP.	DSMP	62000	GEF	71200	International Consultants	30,000	15,000	4,650	5,000	54,650	3)
				71300	Local Consultants	15,000	10,000	4,750	3,000	32,750	4)
				72100	Contractual services	45,000	10,000	0	0	55,000	5)
				71600	Travel	7,150	7,150	3,150	2,150	19,600	
				72200	Equipment/Software	25,000	5,000	2,000	0	32,000	6)
				74200	Audio, video and print production costs	3,000	3,000			6,000	
					Total Outcome 2	125,150	50,150	14,550	10,150	200,000	
Outcome 3 Capacity available to assess hydrological	DSMP	62000	GEF	71200	International Consultants	17,000	16,000	4,650	3,000	40,650	7)
				71300	Local Consultants	10,000	10,000	4,750	3,000	27,750	8)
				72100	Contractual services	13,000	2,000			15,000	9)
				71600	Travel	5,150	5,150	4,150	3,150	17,600	

resources, design, evaluate and implement projects, and provide maintenance and repair services.			74500	Misc.	1,000	1,000	1,000	1,000	4,000		
			72200	Equipment/Software	29,000	16,000			45,000	9a)	
				Total Outcome 3	75,150	50,150	14,550	10,150	150,000		
Outcome 4 Full feasibility and technical design studies for 5 small hydropower sites followed by construction of power stations.	DSMP	62000	GEF	71200	International Consultants	33,000	15,000	12,150	12,500	72,650	10)
				71300	Local Consultants	10,000	5,000	4,750	5,000	24,750	11)
				72100	Contractual Services	150,000	25,000	2,500	2,500	180,000	12)
				71600	Travel	5,150	3,150	3,150	3,150	14,600	
				74500	Misc.	2,000	2,000	2,000	2,000	8,000	
				Total Outcome 4	200,150	50,150	24,550	25,150	300,000		
Outcome 5 Outreach programme and dissemination of project experience/best practices/lessons learned for replication throughout the country.	DSMP	62000	GEF	71200	International Consultants	4,000	10,000	9,650	15,000	38,650	13)
				71300	Local Consultants	3,000	7,000	6,750	10,000	26,750	14)
				71600	Travel	1,500	1,500	2,100	3,500	8,600	
				74200	Audio, video and print production costs	1,500	1,500	1,500	1,500	6,000	
					Total Outcome 5	10,000	20,000	20,000	30,000	80,000	
PROJECT MANAGEMENT	DSMP	04000	UNDP	71400	Project Manager	10,000	10,000	10,000	20,000	50,000	15)
				71400	Project Manager	10,000	10,000	10,000		30,000	15)
				71400	Project Assistant	10,000	10,000	10,000	10,000	40,000	15)
				71600	Travel	2,500	2,500	2,500	2,500	10,000	
				72100	Contractual services	2,000	2,000	2,000	2,000	8,000	16)
				72200	Equipment	3,000	1,000	1,000	1,000	6,000	
				72500	Stationery	1,500	1,500	1,500	1,500	6,000	
					Total Management	39,000	37,000	37,000	37,000	150,000	
	PROJECT TOTAL	549,000	247,000	127,000	127,000	1,050,000					

1) Costs of CTA (13%) and three international consultants to be employed for specific tasks under Component 1 (See Annex C for details)

- 2) Costs of two local consultants to be employed for specific tasks under Component 1 (See Annex C for details)
- 3) Costs of CTA (24%) and one international consultant to be employed for specific tasks under Component 2 (See Annex C for details)
- 4) Costs of four local consultants to be employed for specific tasks under Component 2 (See Annex C for details)
- 5) Contracts with companies for provision of specific tasks under Component 2 (See Annex C for details)
- 6) Computing equipment and software programmes to undertake economic and financial analyses of individual SHP plants, taking into account a mix of equity, debt and grant (if available) to determine IRRs, NPVs, etc., including flexibility to undertake sensitivity analyses under different scenarios of economic and financial parameters.
- 7) Cost of CTA (15%) and two international consultants to implement specific tasks under Component 3 (See Annex C for details)
- 8) Costs of four local consultants to be employed for specific tasks under Component 3 (See Annex C for details)
- 9) Contract with a company for provision of specific tasks under Component 3 (See Annex C for details)
- 9a) Equipment for measuring water velocity and river discharge as a function of depth (e.g. weirs, flumes), sediment load, data loggers and software for hydrological data interpretation
- 10) Costs of CTA (26%) and one international consultant to be employed for specific tasks under Component 4 (See Annex C for details)
- 11) Costs of three local consultants to be employed for specific tasks under Component 4 (See Annex C for details)
- 12) Contracts with companies for provision of specific tasks under Component 4 (See Annex C for details)
- 13) Costs of CTA (22%) and two international consultants to be employed for specific tasks under Component 5 (See Annex C for details)
- 14) Costs of three local consultants to be employed for specific tasks under Component 5 (See Annex C for details)
- 15) Cost of Project Manager will be financed by GEF (\$ 50,000) and UNDP (\$30,000). UNDP will finance remaining costs under Project Management (\$70,000), i.e. Project assistant, Travel, Audit, etc.
- 16) Costs of annual audit

Summary of Funds:³

	Amount (\$) Year 1	Amount (\$) Year 2	Amount (\$) Year 3	Amount (\$) Year 4	Total (\$)
GEF	524,000	222,000	102,000	102,000	950,000
UNDP	25,000	25,000	25,000	25,000	100,000
Government (In kind)	200,000	200,000	200,000	200,000	800,000
MDG Carbon Facility	100,000	60,000	60,000	60,000	280,000
IWRMP	100,000	100,000			200,000
Private Sector	8,000,000	12,000,000			20,000,000
TOTAL	8,949,000	12,607,000	387,000	387,000	22,330,000

³ Summary table should include all financing of all kinds: GEF financing, co-financing, cash, in-kind, etc...

Annex F: Small Hydro Development Plan until Year 2012*

	Site	Installed capacity (MW)
	New SHPS	
	Chuiskaya Oblast	
1	Shamsinskaya	2.4
2	Alamedinskaya	3.2
3	Suusamyrskaya	14.0
4	Chon-Keminskaya (3 stations x 5 MW each)	15.0
5	Karakolskaya	3.0
	Issyk-Kulskaya Oblast	
6	Chon-Aksuyskaya	10.0
7	Enilchekskaya	2.0
8	Ak-Saiskaya	1.2
9	Ak-Tilecskaya	1.2
10	Ak-Bulun 1	1.2
11	Ak-Bulun 2	1.35
12	Darhan	1.2
13	Kuiluscaya	1.9
14	Turasu	0.5
15	Tamga	2.0
16	Chon-Sary-Oi	1.6
17	Baykchy City Outskirts	22.0
	Narynskaya Oblast	
18	Kokomerenskaya (included in Presidential Decree, although too large to be designated “small”)	70.0
9	Kochkorskaya	3.0
0	Suekskaya	1.6
	Oshskaya Oblast	
21	Karatashskaya	3.0
22	Salamalikskaaya	3.0
23	Austanskaya	3.0
	Djalalabadskaya Oblast	
24	Synynskaya	4.4
25	Janyjolskaya	3.5
26	Sarybulakskaya	2.0
27	Sandalashskaya	12.0
	Batkenskaya Oblast	
28	Austan	3.0
	To be constructed on existing hydrological facilities	
29	Kirovskaya SHPS	23.0
30	Orto-Tokoiskaya SHPS, Issyk-Kulskaya Oblast	20.0
31	Papanskaya SHPS, Oshskaya Oblast	20.0
32	Tortkulskaya SHPS, Batkenskaya Oblast	8.0

	Reconstruction	
33	Sokuluk-1, Chuiskaya Oblast	2.0
34	Sokuluk-2, Chuiskaya Oblast	1.2
35	Karabaltinskaya, Chuiskaya Oblast	1.6
36	Arasanskaya, Issyk-Kulskaya Oblast	1.2
37	Leninopolskaya Talaskaya Oblast	1.6
38	At-Bashinskaya, Narynskaya Oblast	40.0
39	Talaskaya, Takaskaya Oblast	0.15
40	Ivano-Alekseevskaya, Talaskaya Oblast	0.123
41	Budenovskaya, Takasskaya Oblast	0.116
TOTAL		311.24 MW (out of SHPs will constitute 241.24 MW)

* As approved by Presidential Decree No. 365 of 14 October 2008.

ANNEX G: LIST OF ACRONYMS

APR – Annual Performance Report
AWP – Annual Work Plan
CEO – Chief Executive Officer
CIS – Commonwealth of Independent States
DSMP -- Directorate for Small and Medium-scale Power Projects in the Kyrgyz Republic
EU – European Union
MSP – Medium-Sized Project
GEF – Global Environment Facility
GDP – Gross Domestic Product
GHG – Greenhouse gases
IAs –Implementing Agencies
IW – Inception workshop
IWRMP - Integrated Water and Resource Management Project
MoE -- Ministry of Energy
M&E – Monitoring and Evaluation
NGO – Non-governmental Organization
PB – Project Board
PIF – Project Information Format
PIR – Project Implementation Report
PIU – Project implementation unit
RCU – UNDP/GEF Regional Coordinating Unit in Bratislava
RE - Renewable Energy
Tbd – To be determined
ToE – Tons of oil equivalent
ToR – Terms of reference
UNDP – United Nations Development Programme
UNDP-CO – United Nations Development Programme Country Office
USSR – Union of Soviet Socialist Republics

ANNEX H: LETTERS OF CO-FINANCING AND SUPPORT

(Please, see a separate folder.)

ANNEX I: MONITORING AND EVALUATION PLAN

Project Inception Phase

A Project Inception Workshop will be conducted with the full project team, relevant government counterparts, co-financing partners, the UNDP-CO and representation from the UNDP-GEF Regional Coordinating Unit. A fundamental objective of this Inception Workshop will be to assist the project team to understand and take ownership of the project's goal, objective and outcomes, as well as finalize preparation of the project's first annual work plan on the basis of the project's logframe matrix. This will include reviewing the logframe (indicators, means of verification, assumptions), imparting additional detail as needed, and on the basis of this exercise finalize the Annual Work Plan (AWP) with precise and measurable performance indicators, and in a manner consistent with the expected outcomes for the project. Additionally the purpose and objective of the Inception Workshop (IW) will be to: (i) introduce project staff with the UNDP-GEF expanded team which will support the project during its implementation, namely the CO and responsible Regional Coordinating Unit staff; (ii) detail the roles, support services and complementary responsibilities of UNDP-CO and RCU staff vis à vis the project team; (iii) provide a detailed overview of UNDP-GEF reporting and monitoring and evaluation (M&E) requirements, with particular emphasis on the harmonized Annual Project Implementation Reviews (PIRs)/Annual Project Report (APR), Project Board Meetings, as well as mid-term and final evaluations. Equally, the IW will provide an opportunity to inform the project team on UNDP project related budgetary planning, budget reviews, and mandatory budget rephasings. The IW will also provide an opportunity for all parties to understand their roles, functions, and responsibilities within the project's decision-making structures, including reporting and communication lines, and conflict resolution mechanisms. The Terms of Reference for project staff and decision-making structures will be discussed again, as needed, in order to clarify for all, each party's responsibilities during the project's implementation phase.

Monitoring responsibilities and events

The day-to-day monitoring of implementation progress will be the responsibility of the project manager, whose work will be based on the project's annual work plan and its indicators. Annual monitoring will be carried out by the Project Board (PB), including Government, UNDP, and key beneficiaries of the project, which is the highest policy-level meeting of the parties directly involved in the implementation of a project. The first such meeting will be held within the first twelve months following the inception workshop. A detailed schedule of Project Board's meetings to review project progress will be developed by the project management, in consultation with project national executing agency, Ministry of Energy, and stakeholder representatives and incorporated in the Project Inception Report. Such a schedule will include: (i) tentative time frames for Project Board's meetings and (ii) project related Monitoring and Evaluation activities. For each Project Board meeting the project manager will prepare annual project report and submit it to the PB members at least two weeks prior to the meeting for review and comments. In addition, ad-hoc meetings can be scheduled between the Government, UNDP, project manager, and other pertinent stakeholders as deemed appropriate and relevant to allow parties to take stock and to troubleshoot any problems pertaining to the project in a timely fashion to ensure smooth implementation of project activities.

Day to day monitoring of implementation progress will be the responsibility of the Project manager, assisted by experts as deemed necessary based on the project's Annual Work Plan and its indicators. The Project Team will inform the UNDP-CO of any delays or difficulties faced during implementation so that the appropriate support or corrective measures can be adopted in a timely and remedial fashion. Periodic monitoring of implementation progress will be undertaken by the UNDP-CO through quarterly meetings with the National Executing Agency, or more frequently as deemed necessary. This will allow parties to take stock and to troubleshoot any problems pertaining to the project in a timely fashion to ensure smooth implementation of project activities.

Project Reporting

The Project Manager in conjunction with the UNDP-GEF extended team will be responsible for the preparation and submission of the following reports that form part of the monitoring process:

A Project Inception Report will be prepared immediately following the Inception Workshop. It will include a detailed First Year/Annual Work Plan divided in quarterly time-frames detailing the activities and progress indicators that will guide implementation during the first year of the project. This Work Plan would include the dates of specific field visits, support missions from the UNDP-CO or the Regional Coordinating Unit (RCU) or consultants, as well as time-frames for meetings of the project's decision making structures. The Report will also include the detailed project budget for the first full year of implementation, prepared on the basis of the Annual Work Plan, and including any monitoring and evaluation requirements to effectively measure project performance during the targeted 12 months time-frame. The Inception Report will include a more detailed narrative on the institutional roles, responsibilities, coordinating actions and feedback mechanisms of project related partners. In addition, a section will be included on progress to date on project establishment and start-up activities and an update of any changed external conditions that may effect project implementation. When finalized the report will be circulated to project counterparts who will be given a period of one calendar month in which to respond with comments or queries. Prior to this circulation of the Report, the UNDP Country Office will review the document. As part of the Inception Report, the project team will prepare a draft Reports List, detailing the technical reports that are expected to be prepared on key areas of activity during the course of the Project, and tentative due dates. Where necessary this Reports List will be revised and updated, and included in subsequent APRs. These technical reports will represent the project's substantive contribution to specific areas, and will be used in efforts to disseminate relevant information and best practices at local, national and international levels.

The UNDP/GEF PIR/APR will be prepared on an annual basis prior to the PB meeting to reflect progress achieved in meeting the project's Annual Work Plan and assess performance of the project in contributing to intended outcomes through outputs and partnership work. The PIR/APR will include the following: (i) An analysis of project performance over the reporting period, including outputs produced and, where possible, information on the status of the outcome; (ii) The constraints experienced in the progress towards results and the reasons for these; (iii) The three (at most) major constraints to achievement of results; (iv) AWP and other expenditure reports; (v) lessons learned; and (vi) Clear recommendations for future orientation in addressing key problems in lack of progress.

Short reports outlining main updates in project progress will be provided quarterly to the local UNDP Country Office and the UNDP-GEF regional office by the project team.

During the last three months of the project the project team will prepare the Project Terminal Report. This comprehensive report will summarize all activities, achievements and outputs of the Project, lessons learnt, objectives met, or not achieved, structures and systems implemented, etc. and will be the definitive statement of the Project's activities during its lifetime. It will also lay out recommendations for any further steps that may need to be taken to ensure sustainability and replicability of the project's activities.

Independent evaluations

The project will be subject to two independent external evaluations as follows. An independent Mid-Term Evaluation will be undertaken at the mid point of project implementation (December 2011/January 2012). The Mid-Term Evaluation will determine progress being made towards the achievement of outcomes and will identify course correction if needed. It will focus on the effectiveness, efficiency and timeliness of project implementation; will highlight issues requiring decisions and actions; and will present initial lessons learned about project design, implementation and management. Findings of this review will be incorporated as recommendations for enhanced implementation during the final half of the project's term. The organization, terms of reference and timing of the mid-term evaluation will be decided after consultation between the parties to the project document. The Terms of Reference for this Mid-term evaluation will be prepared by the UNDP CO based on guidance from the Regional Coordinating Unit and UNDP-GEF. An independent Final Evaluation will take place three months prior to the terminal tripartite review meeting and will be undertaken in accordance with UNDP and GEF guidance. The final evaluation will focus on the delivery of the project's results as initially planned (and as corrected after the mid-term evaluation, if any such correction took place). The final evaluation will look at impact and sustainability of results, including the contribution to capacity development and the achievement of global environmental goals. The final evaluation should also provide recommendations for follow-up activities, and the report will feature management response to the issues raised. The

Terms of Reference for this evaluation will be prepared by the UNDP CO based on guidance from the Regional Coordinating Unit and UNDP-GEF.

Audit clause

The Government of Kyrgyzstan, through the Ministry of Energy, will provide the Resident Representative of UNDP Kyrgyzstan with certified periodic financial statements, and with an annual audit of the financial statements relating to the status of UNDP (including GEF) funds according to the established procedures set out in the Programming and Finance manuals. The Audit will be conducted by the legally recognized auditor of the Government, or by a commercial auditor engaged by the Government.

Learning and knowledge sharing

Results from the project will be disseminated within and beyond the project intervention zone through existing information sharing networks and forums. One of the networks is the UNDP-supported “*Environment and Sustainable Development in Central Asia and Russia*” network (CARnet: www.caresd.net).

In addition, the project will participate, as relevant and appropriate, in *UNDP/GEF sponsored networks organized for Senior Personnel* working on projects that share common characteristics. The project will identify and participate, as relevant and appropriate, in scientific, policy-based and/or any other networks, which may be of benefit to project implementation through lessons learned. The project will identify, analyze, and share lessons learned that might be beneficial in the design and implementation of similar future projects. Identify and analyzing lessons learned is an ongoing process, and the need to communicate such lessons as one of the project's central contributions is a requirement to be delivered at least once every 12 months. UNDP/GEF shall provide a format and assist the project team in categorizing, documenting and reporting on lessons learned.



United Nations Development Programme
Country: Kyrgyzstan
UNDP-GEF Medium Size Project (MSP)
PROJECT DOCUMENT

Project Title: Small Hydro Power Development

UNDAF Outcome(s): A.2 The poor and vulnerable groups have increased and more equitable access to quality basic social services and benefits, in a strengthened pro-poor policy environment.

Expected CP Outcome(s): A.2.9: Global environmental principles integrated into grass roots poverty reduction efforts

Expected CPAP Output (s)

- The Coordination Body for Sustainable Development (CBSD) is able to design and implement priority environmental management and sustainable development initiatives;
- Expanded collaboration between key stakeholders in the area of environmental management for sustainable development on national and sub-regional levels;
- Increased institutional capacity to implement international conventions and agreements;
- New financial mechanisms and partnerships are introduced for the environmental protection

Executing Entity/Implementing Partner: Ministry of Energy

Implementing Entity/Responsible Partners: Directorate for Small and Medium-scale Power Generation Projects in the Kyrgyz Republic (DSMP)

Brief Description: The objective of this project is to accelerate sustainable small hydropower (SHP) electricity generation in Kyrgyzstan by leveraging \$ 20 million in private sector investment over its four-year implementation period. This, in turn, is expected to generate global benefits of almost 250,000 tons of CO₂ over the same period and almost 113,000 tons CO₂/yr thereafter in avoided greenhouse gas (GHG) emissions. The project will do this by introducing a competitive private power framework to supply the grid with SHP-generated electricity at market-determined prices, assist the Government in closing private sector funded SHP investments. It is envisaged that this project will permit Kyrgyzstan to exploit a substantial portion of the 570-900 MW of its potential SHP capacity.

Programme Period:	2005-2010
Atlas Award ID:	tbd
Project ID:	tbd
PIMS #	3134
Start date:	Jan. 2010
End Date	Dec 2013
Management Arrangements	NEX
PAC Meeting Date	November 2009

Total resources required	\$ 22, 230, 000
Total allocated resources:	
• Regular	\$ 100,000
• Other:	
o GEF	\$ 950,000
o MDG Carbon Facility	\$ 280,000
o UNDP-EU IWRMP	\$ 200,000
o Private sector	\$ 20,000,000
In-kind contribution:	
Govt	\$ 800,000

NAME

SIGNATURE

Agreed by Ministry of Energy:

Date/Month/Year

Agreed by DSMP:

Date/Month/Year

Agreed by UNDP:

Date/Month/Year

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Acronyms

DSMP	Directorate for Small and Medium-scale Power Projects in the Kyrgyz Republic
EBRD	European Bank for Reconstruction and Development
GEF	Global Environment Facility
GHG	Greenhouse Gas Emissions
GDP	Gross Domestic Product
IPP	Independent Power Producer
MoE	Ministry of Energy
MoU	Memorandum of Understanding
PMU	Project Management Unit
PPA	Power Purchase Agreement
Rehab	Rehabilitation of power station that has fallen into disuse
UNFCCC	United Nations Framework Convention on Climate Change
UNDP	United Nations Development Programme

1. Situation analysis

With a per capita GDP of US\$ 600, the Kyrgyz Republic is among the poorest countries in the world, while at the same time it is among 30 most GHG intensive economies globally¹. Despite nearly universal 98% grid connection rate, since early 2000 inadequate access to electricity services has attained a chronic character in Kyrgyzstan, which has by now translated into the biggest energy crisis. Official data for 2008 show electric power generation dropping by 18.5% during the first eleven months of 2008. A shortfall of some 1.0-1.5 billion kilowatt hours was projected only for the period of November 2008 – March 2009. The shortfall between demand and supply is exacerbated by high losses within the extensive, inefficient and obsolete distribution system, which in 2008 were estimated at 42% of total electricity distributed (or 4.9 billion kilowatt hours). Current power supply in many regions is characterized by frequent interruptions due to load shedding. Consequently, many households and enterprises were forced to switch to individual diesel and mazut (heavy oil)-fired generators to provide for back-up power when grid supply is not available.

To cope with the crisis, the government of the Kyrgyz Republic introduced several short-term response measures, with a focus on energy security. Planned blackouts (load shedding) were introduced in March 2008, lifted in mid-June, and then re-imposed in August. On 7 October 2008, it was announced that power cuts would be extended to 12 hours per day in most provinces. Only nine hours of electricity per day would be supplied in Batken province; in Bishkek, only 14 hours of electricity per day is guaranteed. A similar situation is expected this year. Further suppression in energy demand are to result from the closure of schools that use electricity for heating from 25 December 2009 through to 1 March 2010 (coal-heating systems are to be installed in all new schools). Generation capacity of coal-fired 600 MW Bishkek combined Heat and Power Plant is to be upgraded via refurbishing; additional fuel has been procured, thanks to a \$5 million World Bank emergency energy assistance grant. Electricity tariffs for households and other users have risen sharply and are expected to rise further in the next 12-24 months.

The Kyrgyz Republic views the expansion of generation capacity - primarily via the construction or expansion of large dams and fossil fuel-based plants in Bishkek and Osh - as central to its longer-term development prospects. However, in light of their large capital requirements and long gestation periods, these projects are very unlikely to materialize in short- or even medium-term. As an alternative, faster and climate-friendly solution to the acute energy crisis in Kyrgyzstan, this project will support the Government of Kyrgyzstan in harnessing its abundant small-hydro power potential based on the premises that smaller, more labour-intensive projects with lower capital requirements and shorter implementation periods represent a more economically and environmentally viable option.

According to EBRD, by absolute indices of potential hydro resources and by concentration of potential hydro resources on the territory, Kyrgyzstan is ranked third among the CIS countries, after Russia and Tajikistan. The largest small hydropower potential is concentrated in northern, southern and eastern districts of the Republic, as illustrated on the map at the right. Its hydro potential electricity generation is estimated to total 163 TWh/yr, while only 73 TWh/yr is technically feasible and 48 TWh/yr economically exploitable. Roughly 162 MWh/yr is currently being exploited. During the Soviet era, Kyrgyzstan was assigned the role of providing hydro generation to the regional



¹ Kyrgyzstan's carbon intensity is 675 tCO₂/Mill.Intl. \$ (based on PPP) - higher than in Saudi Arabia or Kuwait. Source: Climate Analysis Indicators Tool (CAIT) Version 5.0. Washington, DC: World Resources Institute, 2008

interconnected system. But the policy of the former USSR was to focus primarily on the construction and exploitation of large projects. As a result, many small plants (mainly up to 10 MW) that were in operation in the 1950s and 1960s were abandoned. At the moment, out of total 18,500 MW of installed hydro power capacity, only 32 MW constitute small hydro plants, all of them are more than 40 years old and in dire need of modernization.

It is only now after decades of under-investment and neglect, that the attention is turning to small hydro power, whose total potential is estimated to be between 570 and 900 MW, out of which some 311 MW (Annex 1) are earmarked for development by 2012, as per Presidential Decree No. 365 of 14 October 2008. However, required regulatory, technical and market conditions are absent to enable implementation and operation of decentralized small hydro power projects. There is no appropriate regulatory and legal framework for the integration of small hydro power into the national power system; no incentives to stimulate investments and only few Independent Power Producers (operating obsolete SHPP constructed during the Soviet time on irrigation systems). In 2008 the Government adopted a new Law on Renewable Energy which stipulates that a special feed-in tariff will be applied for SHP (all hydro plants under 30 MW are considered “small” under the 2008 Law), but the accompanying by-laws and regulations are yet to be developed and adopted. There is also a need for up-to-date hydrological information and technical data to estimate hydro power capacity, come up with sound design. The year 2008 witnessed a growing interest among national and foreign investors and partners in developing small hydro power generation capacity in Kyrgyzstan (due to its strategic location and interconnected system with other Central Asian countries): several partnership agreements (MoU and Declaration of Intent) were signed by the Government with potential investors for a total of \$ 20 million to be invested in small hydro power development until 2012, but prospects for this investment to materialize in full and at agreed time-frames remain low as long as measures to provide independent power producers with access to power grids, to create a level playing field for renewable power and to reduce the administrative burdens on Kyrgyzstan’s limited regulatory capacities are not undertaken. To address these, the Government established the Directorate for Small and Medium-scale Power Projects in the Kyrgyz Republic (DSMP) in April 2008 with a mandate to support and promote investment in small hydropower by providing a full range of information, technical and advisory services to potential investors. However, at the present time and as evidenced during the PPG implementation, DSMP does not have sufficient capacity to deal with these issues.

2. Strategy

- ***Project rationale and policy conformity***

The proposed project supports the objectives of the Government that is set out in Presidential Decree №365 of 14 October 2008 «On specific measures of small and medium energy development in the Kyrgyz Republic» and «Small and Medium Kyrgyz Energy Development Program through 2012». This Decree outlines a programme identifying a number of SHP projects which the Government would like to prioritize, including: 28 new small and medium-sized HPPs; 4 new small and medium-sized HPPs at the existing irrigation systems (dams and water reservoirs); rehabilitation of 9 existing HPPs (Annex 1). No state funding is allocated to support programme implementation; it is envisaged that investors will implement projects based on the conducive environment for a market-based approach that the Government wishes to create.

- ***Institutional Structure***

The Ministry of Energy (until mid-October 2009 known as Ministry of Industry, Energy and Fuel Resources) is the central body responsible for formulating and implementing the Government’s policy in the field of energy. In the specific area of renewable energy, the Ministry’s RE Unit is entrusted with formulating policy, plans and programmes for the development and utilisation of renewable energy

sources and to make proposals for appropriate legislation/regulations that would promote such activities. In addition, the Ministry's Directorate for Small and Medium-scale Power Projects, established by the Government in April 2008 (until mid-October 2009 the Directorate reported directly to the President of the Republic), is specifically tasked with the Government's mandate to promote small hydropower development through soliciting the participation of private investors. In discharging these responsibilities, the Directorate will establish a "Service Centre" which will support design, evaluation and implementation of projects and develop local capacity for maintenance and repair services based on commercial agreements with IPPs. In line with this, the Directorate is responsible for implementing the Government's programme for developing SHP until the Year 2012 (Annex 1).

- ***Country ownership: country eligibility and country drivenness***

Development of small hydropower generation is one of the important mitigations options that the Government of Kyrgyzstan has endorsed and wishes to pursue for reducing greenhouse gas emissions in the country. In this connection, Kyrgyzstan's Second National Communication to UNFCCC prepared in 2008 indicates that the energy sector is the one "...producing the main emission of greenhouse gases ... in the Republic. It is obvious that the emissions of this section (sector) determine total emissions" (page 101). Increased use of renewable energy is recommended as one of the options in a basket of measures aimed at reversing the trend in GHG emissions.

The project is also in line with national priorities as outlined in the following national laws and will contribute to meeting the objectives of the Government on global warming, air pollution and energy development:

- The Law "On State Regulation and Policy in the Field of Greenhouse Gases Emission and Absorption" approved by Presidential Decree on 25 May 2007. It defines the basics of state regulation, procedures, rights, and responsibilities of public bodies, local self-governance bodies, individuals and legal entities in the field of greenhouse gases emission and absorption on the territory of the Kyrgyz Republic.
- The Law on "Environment Security Concept of the Kyrgyz Republic", approved by Decree of the President of the Kyrgyz Republic in 2007, and which defines the priority of climate change problems for the Republic.

The Ministry of Energy and the Directorate for Small and Medium-scale Power Projects in the Kyrgyz Republic have requested UNDP/GEF's support with implementing the project and building capacity of the Directorate to carry out its functions as envisaged by the Government.

- ***Design principles and strategic considerations***

The project will promote a market-driven approach for the supply of and demand for electricity from small hydro power in the grid-based system of Kyrgyzstan. In line with GEF requirements, "the emphasis will be upon developing policies and regulatory frameworks that provide limited incremental support to strategically important investments", such as investment in new power generation capacity in Kyrgyzstan allowing the country to cope with its acute energy crisis in an environmentally and climate-friendly way. Further, the "host country willingness to adopt favourable policies and to follow through on the initiatives" was demonstrated by the Government of Kyrgyzstan when a Law on Renewable Energy was adopted in 2008. The proposed project will help the Government to realize the provisions of the Law, design and adopt regulations and tariffs which would level the playing field for on-grid renewable energy.

- ***Project objective, outcomes and outputs/activities***

The project consists of five components as outlined below. It is recognised that on-the-job training will be provided to staff of the newly-created Directorate by the recruited consultants, both local and international, during the normal course of their support to the relevant project activities. This will be in

addition to Component 2 that specifically deals with capacity development required by the Directorate to perform its functions effectively.

Component 1: To formulate a streamlined and comprehensive market-oriented energy policy and legal/regulatory framework for small hydropower development in the country. The expected outputs under this component are:

- Adoption and implementation of new policies streamlining land tenure and water use rights for small hydro power developers;
- Revision of the Law on Renewable Energy to define/redefine role of the Ministry of Energy and its Directorate for Small and Medium-scale Power Projects in the Kyrgyz Republic (DSMP).
- Procedures for the introduction of competition in the award of sites/concessions for development.
- Standard PPA to facilitate DSMP negotiations with IPPs.
- One-stop shop for issuance of construction licenses and permits to developers.

Component 2: To develop capacity within DSMP to effectively address institutional issues and to evaluate the economic and financial viability of small hydropower projects, especially within the context of a least cost planning approach and to build capacity within the Ministry's RE Unit to monitor and enforce regulations related to SHP. The expected outputs are:

- Suitable methodology for the economic/financial evaluation of small hydropower plants.
- Standard financial evaluation methodology for calculating SHP tariffs to be paid to IPPs and the tariffs to be charged to consumers, taking account the operating and investment recovery costs of project developers.
- Incentives to be provided to project developers such as reduction/elimination of import duties/taxes on equipment, income tax holiday for a specific duration, simplification of foreign exchange regulations, making it a requirement for distribution companies to purchase **all** electricity generated by SHP, establishing a portfolio to be eventually occupied by SHP in the electricity generation mix (a sort of SHP generation target), grant of longer-term generation licenses valid for 40-50 years (rather than 25-30 years), simplifying EIA procedures for SHP, building or participating in building access roads to SHP sites ear-marked for development. All these will be operationalised by the Ministry of Energy in consultation with other Government Departments.
- In addition, the project will explore possibilities for introduction of such risk mitigation instruments as hydropower energy production guarantee (in case power production targets are not met by developers) or insurance package to safeguard developer in case of non-payment for electricity already supplied. These instruments will be proposed following detailed assessment of risk profile of the pilot projects and discussions among the Ministry of Energy, Ministry of Finance, investors and finance/insurance entities, with the latter entrusted with responsibility to operationalise and manage the scheme. No GEF funds are to be used to capitalize or cover the additional costs of the guarantees.
- Develop and validate power sector baseline study and GHG emission factor for Kyrgyzstan power grid to facilitate and reduce costs of SHP project development under CDM mechanism. Prepare PDD, conduct validation, and facilitate national approval, registration and signature of the Emission Reduction Purchase Agreement (ERPA) for the first CDM project activity in Kyrgyzstan, i.e. the bundle of SHP projects for a total of 200 MW. The list of SHP projects for inclusion in CDM package is currently being discussed with the Directorate and potential investors; it will not include the pilot SHP projects (20 MW) to be supported via the proposed GEF grant in order to avoid any potential double counting of the resulting GHG emission reductions.

- Capacity developed within the Ministry’s RE Unit to monitor and enforce regulations related to SHP.

Component 3: To develop capacity within DSMP/country to assess hydrological resources, design, evaluate and implement projects, and provide maintenance and repair services. The expected outputs are:

- Programme for updating the 30-year old hydrological data.
- Guidelines and technical standards for small hydropower development.
- Capacity within DSMP to design, evaluate and implement projects.
- Local capacity for maintenance and repair services.

Component 4: To prepare full feasibility and technical design studies for the 5 small hydropower sites listed in Table 1 below (this is a preliminary list that may be subject to change on the basis of initial studies by Cotec and Seloga as per their respective framework agreements with the Government), followed by construction of the power stations. The expected outputs are:

- Reports on feasibility and design studies.
- Reports on financial closure with identified investors.
- Report on completion of construction of the 5 hydropower stations.

Component 5: To formulate an outreach programme and document/disseminate project experience/best practices/lessons learned for replication throughout the country. The expected outputs are:

- Plan to implement outreach/promotional activities targeting domestic and foreign investors.
- Capacity development of DSMP to monitor and document project experience.
- Published materials on project experience/best practices and lessons learned/website.

Table 1: List of small hydropower plants for development

Name	Capacity, MW	Output, MWh/yr	Type	Expected FIRR*	Pay-back**
Leninopolskaya	1.6	11,500	Rehab	14.15%	14.98
Chon-Keminskaya SHPP 1	5	35,920	New	14%	15.14
Chon-Keminskaya SHPP 2	5	35,920	New	17.45	9.93
Chon-Keminskaya SHPP-3	5	35,920	New	15.62	12.16
Karakolskaya SHPP	3	21,550	New	14.68	14.81

* Financial Internal Rate of Return ** The long pay-back periods are due to the presently low feed-in tariff of 0.02-0.025 US\$/kWh set by the Govt.

• **Key indicators, risks and assumptions**

Indicators

Key indicators of the project’s success will include:

- CO2 emissions are reduced by 250,000 tons by the end of project activities.
- Post-project CO2 emissions without replication are reduced by almost 2.5 million tons, under the assumption of a 25-year equipment projected life.
- Post-project CO2 emissions with replication are reduced by over 100 million tons, again assuming a 25-year equipment projected life.
- Capacity developed within the Directorate to promote private sector investment in SHP development.

- Capacity developed within MoE’s RE Unit to monitor and enforce regulations related to SHP.
- Lessons learned are documented and distributed to potential investors/stakeholders through publications and project website.

Detailed year-by-year indicators are provided in the Project Results Framework below.

Assumptions

The assumptions are outlined in the Project Results Framework below.

Risks

The project presents some risks which are discussed in the following Table:

Risk	Assessment	Mitigation
Institutional: reluctance in some quarters of the Government to introduce the necessary policies and regulations in support of small hydropower development	Low	The Government of Kyrgyzstan is strongly motivated to increase and diversify its generation capacity through SHP plants and is driven by an acute energy crisis and related socio-economic concerns. Hence, it will ensure that all its associated departments get on board.
Financial: lack of commitment from private and public sector to invest in RE	Low	Already during the project design stage several investors (national and foreign) expressed their interest and commitment to invest in small hydropower provided appropriate legal and regulatory provisions are created
Technical: lack of technical information, knowledge and skills to design and implement small hydro power projects	Medium	Provision of technical assistance for RE-related capacity development in public and private sector will constitute one of the most important project components, which will be delivered through a combination of local and international expertise.

- **Financial modality**

The project is aimed at policy development, capacity building and establishing a conducive environment to facilitate private sector investment. The project objective will be attained through technical assistance and facilitating third parties’ investment in new small hydropower projects. No loan or revolving-fund mechanisms are considered appropriate, and, therefore, grant-type funding is considered as the most appropriate to enable successful delivery of the project outcomes.

- **Cost-effectiveness**

During the 4-year project period, almost 250,000 tons of CO2 would be avoided or equivalent to \$ 4 of GEF funds per tCO2. Furthermore, the 5 SHP plants to be constructed during project implementation will continue avoiding almost 113,000 tons of CO2 annually over their projected life of 25 years. Finally, the estimated total replication potential of SHP in Kyrgyzstan of 570-900 MW makes up for a substantially higher reduction of CO2 emissions and a much lower cost for each ton of CO2 avoided.

- **Sustainability**

From a technical point of view, the viability of grid-connected SHP electricity generation has been proven in the international market, both in the contest of developed and developing countries. By addressing the non-technical barriers that impede the development of SHP electricity generation in Kyrgyzstan, the project will assist in creating a sustainable niche through strengthening the policy, institutional, legal,

regulatory and operational capabilities of the key national institutions, supporting the development of SHP through a market-driven approach, developing national capabilities and disseminating information. These efforts should ensure the long-term sustainability of SHP electricity generation in the country.

With regard to the financial sustainability of DSMP, the two options are being considered. First, in the proposed CDM activities, the Directorate will act as project proponent and will receive a share of CERs based on agreement on revenue sharing with SHP investors. Secondly, DSMP will provide its services related to development and maintenance of SHP on a cost-recovery basis. The two sources will generate a constant source of funding to sustain DSMP operations after the project completion.

From a financial point of view, the project will first help develop an appropriate SHP tariff structure and formulate a standard Power Purchase Agreement (PPA). Subsequently, it will help introduce competition by developing a competitive institutional model for SHP project development. Furthermore, the project will support the integration of local industries into the SHP sector. This will be achieved through the provision of focused support to local engineering firms/specialised engineering workshops for installation, maintenance and repair of electro-mechanical equipment at the SHPs. With the increase over time in SHP installations, it is envisaged that such efforts will intensify with opportunities being created for additional players to provide such services.

- ***Replicability***

The Project's potential for replicability at other promising sites of Kyrgyzstan is very good since the project will adopt a bottom-up approach within the overall policy/investment framework that is envisaged to be developed to promote small hydropower electricity generation. Technical assistance for barrier removal and institutional strengthening to be provided under the MSP will facilitate such replicability since it will create the required institutional, policy, and technical conditions to enable the mobilization of additional investor interest for the development of new small hydropower sites. Moreover, the lessons learned will be of great value to the neighbouring countries sharing similar resource base should they decide to tap their respective small hydropower potential for electricity generation.

- ***Coordination with other related initiatives***

Coordination with UN/UNDP initiatives: The project builds on the findings of the Central Asia Regional Risk Assessment project undertaken by UNDP on behalf of the international donor community in 2008. Its objective was to assess and provide recommendations for the Governments of Central Asia to prepare for and manage the compound threats to water and energy security. The proposed project will form an integral part of the UN System response to a complex crisis in Central Asia which includes both short-term humanitarian support and longer-term development work to accelerate reform in the water-energy sector in order to minimize future security risks. The project will work closely with the on-going UNDP-EU project on Integrated Water Resources Management (IWRM) in Central Asia which is about to start a comprehensive feasibility study of the country's hydrological potential within a trans-boundary context; one component of this project deals with the feasibility study for a pilot small hydropower station (co-financing letter attached in Annex H.3). Also, UNDP implemented during 2005-2008 a project aimed at promoting renewable energy resources for the development of remote regions. This project specifically dealt with drafting legislation entitled "Law on Renewable Energy" which was adopted in 2008 and implemented 13 pilot pico-hydro power stations ranging in capacity from 200 W to 5 kW in the Issyk-Kutskaya region. Moreover, UNDP is implementing a project funded by its MDG Carbon Facility that targets the development of SHP in the country for emission trading under the CDM modality.

Coordination with private sector: Private sector is to play the key role in project implementation. At PPG stage agreements with two potential investors, South Korean and Malaysian companies, were reached for construction of SHP with a total installed capacity up to 250 MW.

Coordination with other donors: The European Bank for Reconstruction and Development, on its part, has focused on constructing high-voltage transmission lines under a loan agreement. In addition, it is involved in supporting the Government with strategic planning in small hydropower under its “Sustainable Energy Initiative” and the creation of a conducive environment for investment in renewable energy under its “New Environmental and Social Policy” programme. With regard to GTZ, it is implementing a project entitled “Transboundary Management of Water Resources in Central Asia” under which it is investigating the safety of the dam on the Tort-Kul reservoir and its impacts on the environment. The European Union is implementing a project entitled “Development of mini-SHP and Biogas Technologies” under which it will construct a couple of pilot 10-50 m³ biogas digesters and 4 mini-SHP with a total output of 150 kW in the Aksuisky and Tupsky regions of Issik-Kulsky District (Oblast).

Coordination with the Government: The Ministry of Energy, in its letter of 1 October 2009 (Annex H.7), has indicated that it will take responsibility for coordinating all activities in small hydropower development to be implemented by EBRD and UNDP and, by extension, by the various other external partners that are supporting the Government in developing and utilising renewable energy sources. At the project level, coordination will be ensured by the Project Board, which will be chaired by the Ministry of Energy. In addition, the project will work closely with the recently established Agency for Development, Investment and Innovation under the President of Kyrgyzstan with a mandate to facilitate foreign and domestic investment in priority development projects and sector (such as power generation). Promotional and outreach activities under Component 5 of the project will be supported and implemented jointly with the Agency.

3. Project Results Framework

This project will contribute to achieving the following Country Programme Outcome as defined in CPD: A.2.9: Global environmental principles integrated into grass roots poverty reduction efforts.
Country Programme Outcome Indicators: Key Indicator (1): Number of developed national action plans to implement commitments of KR under the UN environmental conventions. Key Indicator (2): Discussion of all environmental initiatives among civic society, involving mass media. Key Indicator (3): Transparent finance resource conversion mechanisms developed. Key Indicator (4): National legislation adapted to international environmental commitments of KR.
Primary applicable Key Environment and Sustainable Development Key Result Area (same as that on the cover page, circle one): Mainstreaming Environment and Energy
Applicable GEF Strategic Objective and Program: To promote on-grid renewable energy - CC-SP3-RE
Applicable GEF Expected Outcomes: Total avoided GHG emissions from hydropower generation.
Applicable GEF Outcome Indicators: Avoided GHG emissions from hydropower generation (tons CO ₂ /kWh); and \$/t CO ₂ .

	Indicator	Baseline	Targets End of Project	Source of Verification	Risks and Assumptions
Objective					
To assist the Government in addressing the barriers to significantly increase grid-connected small hydropower capacity.	285,140 MWh of electricity generated by project completion and 250,000 tons of CO ₂ avoided.	GHG in the electricity generation sector scheduled to increase from 1.75 million tons/year to almost 3 million tons/year by the year 2020. Negligible investments taking place in the grid-connected small hydropower sector.	Investment in at least 5 small hydropower sites by end of project. Reduction of 250,000 tons of CO ₂ over the 4-year MSP project life cycle.	Project's annual reports, GHG monitoring and verification reports. Project final evaluation report.	Continued commitment of project partners, including Government agencies and investors/developers.
Outcomes					
Outcome 1: Streamlined and comprehensive market-oriented energy policy and legal/regulatory framework for small hydropower	Framework finalized and available for consultation by potential investors.	None available at the present time.	To be completed within 6 months of project initiation and approved by Government by the	Published documents. Government decrees/laws.	Commitment of the various Government institutions.

development.			end of year 1.		
Output 1.1: Report streamlining land tenure, water use rights and review of Law on Renewable Energy to define/redefine role of DSMP.	Report confirming that policy and framework arrangements are in place.	Overlapping responsibilities of various Government institutions make the decision process very complicated.	To be completed within 6 months of project initiation and approved by the Government by the end of year 1.	Published documents.	Commitment of the various Government institutions.
Output 1.2: Procedures for the introduction of competition in the award of sites/concessions for development.	Guidelines available.	Not available at the present time.	To be completed within 6 months of project initiation and approved by the Government by the end of year 1. Competitive bidding for sites/concession areas completed by the end of 1.5 years after project start.	Published documents. Signed agreements.	Commitment of the various Government institutions and project developers.
Output 1.3: Standard PPA to facilitate DSMP negotiations with IPPs.	Document available.	Not available at the present time.	To be completed within 6 months of project initiation and approved by the Government by the end of year 1. All PPAs for 20 MW of capacity signed by the end of 1.5 years after project start.	Published documents. Signed agreements.	Continued investor interest.
Output 1.4: One-stop shop for issuance of construction licenses and permits to developers.	One-stop shop is operational. Information brochure and website are available.	Under the business-as-usual scenario, the average time to secure all required construction licenses and permits are 13	All construction licenses and permits are issued within 4-6 months.	Signed documents.	Continued investor interest.

		months.			
Outcome 2: Capacity available within DSMP to evaluate the economic and financial viability of small hydropower projects and within the Ministry's RE Unit to monitor and enforce regulations related to SHP.	Number of DSMP/Ministry staff who participated in and successfully completed capacity development programme.	None available at the present time.	5 projects evaluated by Government staff by the end of year 1. Six Government staff trained during first 6 months of project.	Training modules/number of staff trained. Project report.	Concerned institutions willing to release staff for training.
Output 2.1: Suitable methodology for the economic/financial evaluation of small hydropower plants.	Methodologies applied by DSMP	Not available at the present time.	To be completed within 6 months of project initiation and applied by Government thereafter.	Project report.	Cooperation of Government entities and staff.
Output 2.2: Standard financial evaluation methodology for calculating small hydropower tariffs to be paid to IPPs/to be charged to consumers.	Methodologies applied by DSMP	No such evaluation methodology available.	To be completed within 6 months of project initiation and applied by Government thereafter.	Project documentation.	Cooperation of Government entities and staff.
Output 2.3: Financial and other incentives to be provided to project developers.	Document available.	Not comprehensive document available at the present time.	To be completed within 6 months of project initiation and applied by Government thereafter.	Project documentation.	Cooperation of Government entities.
Output 2.4: Guarantee and risk mitigation instruments that facilitate IPP investment.	Instruments developed.	No such instruments available at the present time.	Instruments designed in year 1 and applied to IPP investments by year 2.	Project reports.	Lending institutions ready to come on board.
Output 2.5: PIN and PDD to pursue options under CDM.	CDM projects registered.	None available to date.	To be completed by the end of year 2.	Project documentation.	Cooperation of Government entities.
Output 2.6: Capacity developed within the Ministry's RE Unit to monitor and enforce regulations related to SHP.	Number of Ministry staff successfully trained.	None available at the present time.	Five to Six Government staff trained during first 6 months of project.	Number of staff trained. Project report.	Cooperation of Ministry and staff.

Outcome 3: Capacity available to assess hydrological resources, design, evaluate and implement projects, and provide maintenance and repair services.	Teams trained in various categories of activities. Technical assessment of projects. Guidelines for maintenance, repair and modular SHP design.	No such activity being implemented.	5 projects technically assessed in year 1. Manual for operations & maintenance developed in year 1, O&M procedures applied in at least 5 sites by end of project. 40 people trained in the various categories by the end of the project.	Project reports.	
Output 3.1: Programme for updating the 30-year old hydrological data.	Instrumentation to measure river flow installed. Software developed for interpretation of data.	Hydrological data presently available date back to the 1970s.	Update of 5 sites (in addition to the 5 targeted for development) completed by the end of project.	Project documentation.	Cooperation of concerned Government institutions.
Output 3.2: Guidelines and technical standards for small hydropower development.	Published guidelines.	Not presently available.	Completed within first 6 months of project. Applied in 5 project development sites.	Project reports.	Participation of Government institutions in drafting guidelines.
Output 3.3: Capacity developed within DSMP to design, evaluate and implement projects.	Capacity development material available.	Not presently available.	Six DSMP staff trained during first 6 months of project.	Project documentation.	Participation of Government entities in training programme.
Output 3.4: Local capacity for maintenance and repair services.	Availability of qualified and certified companies for maintenance and repair services.	None available now.	30 people trained by the end of the project.	Project reports.	Availability of people with basic technical education.
Outcome 4: Full feasibility and technical design studies for 5 small hydropower sites followed by construction of power stations.	Feasibility reports.	Not presently available.	Construction of 5 small hydropower stations completed by the end of the project.	Site visits to power stations. Project reports.	Commitment and participation of Government institutions and project developers.

Output 4.1: Reports on feasibility and design studies.	Reports available.	Non-existent at the present time.	Completed within 9 months of project start.	Project documentation.	All data made available to consultants.
Output 4.2: Reports on financial closure with identified investors.	Reports available.	Not presently available.	Completed within 12 months of project start.	Project reports.	Complete socio-economic survey of targeted population is undertaken.
Output 4.3: Report on completion of construction of the 5 hydropower stations.	Completion report.	No construction is being undertaken.	Five small hydropower stations constructed by the end of project. 130.5 GWh of electricity generated annually at project end.	Site visits and project reports.	Supportive institutional, legal and regulatory framework.
Outcome 5: Outreach programme and dissemination of project experience/best practices/lessons learned for replication throughout the country.	Outreach programme formulated. Project experience compiled, analyzed and disseminated.	Lack of sufficient information to pursue programme.	8-10 projects initiated in other areas of Kyrgyzstan within 3 years of MSP completion.	Project final report and web site.	Growth of programme will be sustained.
Output 5.1: Plan to implement outreach/promotional activities targeting domestic and foreign investors.	Plan available.	No such plan available.	Completed within 6 months of project initiation.	Project documentation.	
Output 5.2: Capacity development of DSMP to monitor and document project experience.	Capacity development material prepared.	No capacity development programme.	10 Government staff of trained by the end of project.	Project reports.	Appointment of staff by Government.
Output 5.3: Published materials on project experience/best practices and lessons learned.	Project experience and best practices compiled, published and available on website.	Lack of information on best practices and lessons learned.	Completed within 3 months of project end.	Project documentation and web site.	

4. Total budget and work plan²

Award ID:				Tbd							
Project ID:				Tbd							
Award Title:				GEF 3134 CC MSP: Small Hydro Power Development							
Business Unit:				KGZ 10							
PIMS Number				3134							
Project Title:				GEF 3134 CC MSP: Small Hydro Power Development							
Implementing Partner (Executing Agency)				Ministry of Energy, DSMP (NEX)							
GEF Outcome/Atlas Activity	Responsible Party	Fund ID	Donor Name	Atlas Budgetary Code	ATLAS Budget Description	Amount Year 1 (USD)	Amount Year 2 (USD)	Amount Year 3 (USD)	Amount Year 4 (USD)	Total (USD)	Notes*
Outcome 1 Streamlined and comprehensive market-oriented energy policy and legal/regulatory framework for small hydropower development.	DSMP	62000	GEF	71200	International Consultants	88,000	28,000	7,650	8,000	131,650	1)
				71300	Local Consultants	10,000	10,000	3,750	3,500	27,250	2)
				72100	Contractual services					0	
				71600	Travel	1,650	1,650	1,650	1,650	6,600	
				74500	Misc.	500	500	500	500	2,000	
				74200	Audio, video and print production costs			1,000	1,500	2,500	
					Total Outcome 1	100,150	40,150	14,550	15,150	170,000	
Outcome 2 Capacity available within DSMP to evaluate the economic and financial viability of small hydropower projects and within the Ministry's RE Unit to monitor and enforce regulations related to SHP.	DSMP	62000	GEF	71200	International Consultants	30,000	15,000	4,650	5,000	54,650	3)
				71300	Local Consultants	15,000	10,000	4,750	3,000	32,750	4)
				72100	Contractual services	45,000	10,000	0	0	55,000	5)
				71600	Travel	7,150	7,150	3,150	2,150	19,600	
				72200	Equipment/Software	25,000	5,000	2,000	0	32,000	6)
				74200	Audio, video and print production costs	3,000	3,000			6,000	
					Total Outcome 2	125,150	50,150	14,550	10,150	200,000	
Outcome 3 Capacity available to assess hydrological	DSMP	62000	GEF	71200	International Consultants	17,000	16,000	4,650	3,000	40,650	7)
				71300	Local Consultants	10,000	10,000	4,750	3,000	27,750	8)
				72100	Contractual services	13,000	2,000			15,000	9)

² Only cash co-financing (cost sharing at project level or other trust funds) actually passing through UNDP accounts should be entered here and in Atlas. Other co-financing should NOT be shown here.

resources, design, evaluate and implement projects, and provide maintenance and repair services.				71600	Travel	5,150	5,150	4,150	3,150	17,600	
				74500	Misc.	1,000	1,000	1,000	1,000	4,000	
				72200	Equipment/Software	29,000	16,000			45,000	9a)
				Total Outcome 3		75,150	50,150	14,550	10,150	150,000	
Outcome 4 Full feasibility and technical design studies for 5 small hydropower sites followed by construction of power stations.	DSMP	62000	GEF	71200	International Consultants	33,000	15,000	12,150	12,500	72,650	10)
				71300	Local Consultants	10,000	5,000	4,750	5,000	24,750	11)
				72100	Contractual Services	150,000	25,000	2,500	2,500	180,000	12)
				71600	Travel	5,150	3,150	3,150	3,150	14,600	
				74500	Misc.	2,000	2,000	2,000	2,000	8,000	
				Total Outcome 4		200,150	50,150	24,550	25,150	300,000	
Outcome 5 Outreach programme and dissemination of project experience/best practices/lessons learned for replication throughout the country.	DSMP	62000	GEF	71200	International Consultants	4,000	10,000	9,650	15,000	38,650	13)
				71300	Local Consultants	3,000	7,000	6,750	10,000	26,750	14)
				71600	Travel	1,500	1,500	2,100	3,500	8,600	
				74200	Audio, video and print production costs	1,500	1,500	1,500	1,500	6,000	
				Total Outcome 5		10,000	20,000	20,000	30,000	80,000	
PROJECT MANAGEMENT	DSMP	04000	UNDP	71400	Project Manager	10,000	10,000	10,000	20,000	50,000	15)
				71400	Project Manager	10,000	10,000	10,000		30,000	15)
				71400	Project Assistant	10,000	10,000	10,000	10,000	40,000	15)
				71600	Travel	2,500	2,500	2,500	2,500	10,000	
				72100	Contractual services	2,000	2,000	2,000	2,000	8,000	16)
				72200	Equipment	3,000	1,000	1,000	1,000	6,000	
				72500	Stationery	1,500	1,500	1,500	1,500	6,000	
		Total Management		39,000	37,000	37,000	37,000	150,000			
	PROJECT TOTAL		549,000	247,000	127,000	127,000	1,050,000				

Budget notes:

- 1) Costs of CTA (13%) and three international consultants to be employed for specific tasks under Component 1 (See Annex C for details)
- 2) Costs of two local consultants to be employed for specific tasks under Component 1 (See Annex C for details)
- 3) Costs of CTA (24%) and one international consultant to be employed for specific tasks under Component 2 (See Annex C for details)
- 4) Costs of four local consultants to be employed for specific tasks under Component 2 (See Annex C for details)
- 5) Contracts with companies for provision of specific tasks under Component 2 (See Annex C for details)
- 6) Computing equipment and software programmes to undertake economic and financial analyses of individual SHP plants, taking into account a mix of equity, debt and grant (if available) to determine IRRs, NPVs, etc., including flexibility to undertake sensitivity analyses under different scenarios of economic and financial parameters.
- 7) Cost of CTA (15%) and two international consultants to implement specific tasks under Component 3 (See Annex C for details)
- 8) Costs of four local consultants to be employed for specific tasks under Component 3 (See Annex C for details)
- 9) Contract with a company for provision of specific tasks under Component 3 (See Annex C for details)
- 9a) Equipment for measuring water velocity and river discharge as a function of depth (e.g. weirs, flumes), sediment load, data loggers and software for hydrological data interpretation.
- 10) Costs of CTA (26%) and one international consultant to be employed for specific tasks under Component 4 (See Annex C for details)
- 11) Costs of three local consultants to be employed for specific tasks under Component 4 (See Annex C for details)
- 12) Contracts with companies for provision of specific tasks under Component 4 (See Annex C for details)
- 13) Costs of CTA (22%) and two international consultants to be employed for specific tasks under Component 5 (See Annex C for details)
- 14) Costs of three local consultants to be employed for specific tasks under Component 5 (See Annex C for details)
- 15) Cost of Project Manager will be financed by GEF (\$ 50,000) and UNDP (\$30,000). UNDP will finance remaining costs under Project Management (\$70,000), i.e. Project assistant, Travel, Audit, etc.
- 16) Costs of annual audit

Summary of Funds:³

	Amount (\$) Year 1	Amount (\$) Year 2	Amount (\$) Year 3	Amount (\$) Year 4	Total (\$)
GEF	524,000	222,000	102,000	102,000	950,000
UNDP	25,000	25,000	25,000	25,000	100,000
Government (In kind)	200,000	200,000	200,000	200,000	800,000
MDG Carbon Facility	100,000	60,000	60,000	60,000	280,000
IWRMP	100,000	100,000			200,000
Private Sector	8,000,000	12,000,000			20,000,000
TOTAL	8,949,000	12,607,000	387,000	387,000	22,330,000

³ Summary table should include all financing of all kinds: GEF financing, co-financing, cash, in-kind, etc...

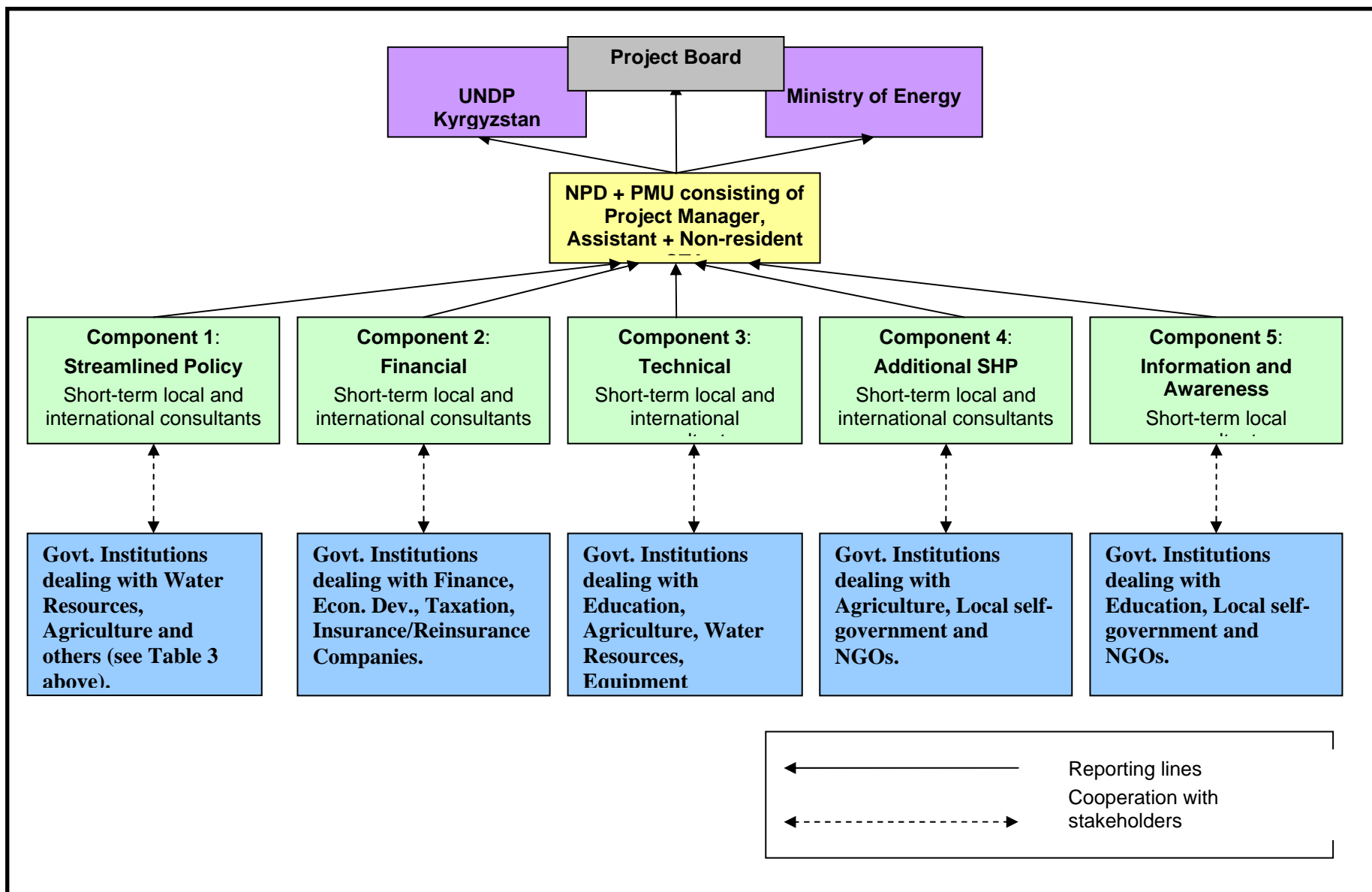
5. Management Arrangements

The project will be implemented through the NEX execution modality by the Directorate for Small and Medium-scale Power Projects in the Kyrgyz Republic under the overall guidance of the Ministry of Energy. The Directorate will appoint a National Project Director who will assume overall responsibility for project implementation, ensure the delivery of project outputs and the judicious use of project resources. The National Project Director will be assisted by a Programme Management Unit and headed by a Project Manager (PM). The PM will be responsible for overall project coordination and implementation, consolidation of work plans and project papers, preparation of quarterly progress reports, reporting to the project supervisory bodies, and supervising the work of the project experts and other project staff. The PM will also closely coordinate project activities with relevant Government and other institutions and hold regular consultations with project stakeholders.

The PM will benefit from the focused inputs of a part-time non-resident Chief Technical Adviser (CTA) whose main task will be to provide expert advisory services and technical assistance to the PM and other project experts, as and when required. In addition, a Project Assistant (PA) will be recruited to support the PM on administrative and financial issues. National and international consultancy services will be called in for specific tasks under the various project components. These services, either of individual consultants or under sub-contacts with consulting companies, will be procured in accordance with applicable UNDP guidelines.

A Project Board, chaired by a Senior Representative of the Ministry of Energy, will be established to provide strategic directions and management guidance to project implementation. It will consist of representatives of the relevant ministries and state committees/departments participating in the project, the UNDP Country Office (CO), the National Project Director as well as representatives of the NGO community. Representatives of the private sector may be invited to participate. Finally, the UNDP CO will provide specific support services for proper project implementation, as required, through its Administrative, Programme and Finance Units.

An Organogramme representing the implementation arrangement is presented below:



The Project Board (PB) is responsible for providing strategic guidance and making management decisions for the project, in particular when guidance is required by the Project Manager. The PB plays a critical role in project monitoring and evaluations by quality assuring these processes and products, and using evaluations for performance improvement, accountability and learning. It ensures that required resources are committed and arbitrates on any conflicts within the project or negotiates a solution to any problems with external bodies. In addition, it approves the appointment and responsibilities of the Project Manager and any delegation of its Project Assurance responsibilities. Based on the approved Annual Work Plan, the PB can also consider and approve the quarterly plans (if applicable) and also approve any essential deviations from the original plans.

In order to ensure UNDP's ultimate accountability for the project results, PB decisions will be made in accordance to standards that shall ensure management for development results, best value for money, fairness, integrity, transparency and effective international competition. In case consensus cannot be reached within the PB, the final decision shall rest with the UNDP Project Manager.

Potential members of the PB are reviewed and recommended for approval during the PAC meeting. Representatives of other stakeholders can be included in the Board as appropriate. The PB contains three distinct roles, including:

- **An Executive:** individual representing the project ownership to chair the group.
 - *e.g. Representative of the Government Cooperating Agency or UNDP*
- **Senior Supplier:** individual or group representing the interests of the parties concerned which provide funding for specific cost sharing projects and/or technical expertise to the project. The Senior Supplier's primary function within the Board is to provide guidance regarding the technical feasibility of the project.
 - *e.g. Representative of the Implementing Partner and/or UNDP*
- **Senior Beneficiary:** individual or group of individuals representing the interests of those who will ultimately benefit from the project. The Senior Beneficiary's primary function within the Board is to ensure the realization of project results from the perspective of project beneficiaries.
 - *e.g. Representative of the Government or Civil Society.*
- The **Project Assurance** role supports the Project Board Executive by carrying out objective and independent project oversight and monitoring functions. The Project Manager and Project Assurance roles should never be held by the same individual for the same project.
 - *e.g. A UNDP Staff member typically holds the Project Assurance role.*

Project Manager: The Project Manager has the authority to run the project on a day-to-day basis on behalf of the Implementing Partner within the constraints laid down by the PB. The Project Manager's prime responsibility is to ensure that the project produces the results specified in the project document, to the required standard of quality and within the specified constraints of time and cost.

Project Support: The Project Support role provides project administration, management and technical support to the Project Manager as required by the needs of the individual project or Project Manager.

6. Monitoring Framework and Evaluation

The project will be monitored through the following M& E activities. The M& E budget is provided in the table below.

Project start:

A Project Inception Workshop will be held within the first 2 months of project start with those with assigned roles in the project organization structure, UNDP country office and where appropriate/feasible regional technical policy and programme advisors as well as other stakeholders. The Inception Workshop is crucial to building ownership for the project results and to plan the first year annual work plan.

The Inception Workshop should address a number of key issues including:

- **Assist** all partners to fully understand and take ownership of the project. Detail the roles, support services and complementary responsibilities of UNDP CO and RCU staff vis-à-vis the project team. Discuss the roles, functions, and responsibilities within the project's decision-making structures, including reporting and communication lines, and conflict resolution mechanisms. The Terms of Reference for project staff will be discussed again as needed.
- **Based** on the project results framework and the relevant GEF Tracking Tool if appropriate, finalize the first annual work plan. Review and agree on the indicators, targets and their means of verification, and recheck assumptions and risks.
- **Provide** a detailed overview of reporting, monitoring and evaluation (M&E) requirements. The Monitoring and Evaluation work plan and budget should be agreed and scheduled.
- **Discuss** financial reporting procedures and obligations, and arrangements for annual audit.
- **Plan** and schedule Project Board meetings. Roles and responsibilities of all project organisation structures should be clarified and meetings planned. The first PB meeting should be held within the first 12 months following the inception workshop.

An Inception Workshop report is a key reference document and must be prepared and shared with participants to formalize various agreements and plans decided during the meeting.

Quarterly:

- **Progress** made shall be monitored in the UNDP Enhanced Results Based Management Platform.
- **Based** on the initial risk analysis submitted (Annex 2), the risk log shall be regularly updated in ATLAS. Risks become critical when the impact and probability are high.
- **Based** on the information recorded in Atlas, a Project Progress Reports (PPR) can be generated in the Executive Snapshot.
- **Other** ATLAS logs can be used to monitor issues, lessons learned etc... The use of these functions is a key indicator in the UNDP Executive Balanced Scorecard.

Annually:

- **Annual Project Review/Project Implementation Reports (APR/PIR):** This key report is prepared to monitor progress made since project start and in particular for the previous reporting period (30 June to 1 July). The APR/PIR combines both UNDP and GEF reporting requirements.

The APR/PIR includes, but is not limited to, reporting on the following:

- Progress made toward project objective and project outcomes - each with indicators, baseline data and end-of-project targets (cumulative)
- Project outputs delivered per project outcome (annual).
- Lesson learned/good practice.
- AWP and other expenditure reports
- Risk and adaptive management
- ATLAS QPR
- Portfolio level indicators (i.e. GEF focal area tracking tools) are used by most focal areas on an annual basis as well.

Periodic Monitoring through site visits:

UNDP CO and the UNDP RCU will conduct visits to project sites based on the agreed schedule in the project's Inception Report/Annual Work Plan to assess first hand project progress. Other members of the PB may also join these visits. A Field Visit Report/BTOR will be prepared by the CO and UNDP RCU and will be circulated no less than one month after the visit to the project team and Project Board members.

Mid-term of project cycle:

The project will undergo an independent Mid-Term Evaluation at the mid-point of project implementation (December 2012/January 2013). The Mid-Term Evaluation will determine progress being made toward the achievement of outcomes and will identify course correction if needed. It will focus on the effectiveness, efficiency and timeliness of project implementation; will highlight issues requiring decisions and actions; and will present initial lessons learned about project design, implementation and management. Findings of this review will be incorporated as recommendations for enhanced implementation during the final half of the project's term. The organization, terms of reference and timing of the mid-term evaluation will be decided after consultation between the parties to the project document. The Terms of Reference for this Mid-term evaluation will be prepared by the UNDP CO based on guidance from the Regional Coordinating Unit and UNDP-GEF. The management response and the evaluation will be uploaded to UNDP corporate systems, in particular the [UNDP Evaluation Office Evaluation Resource Center \(ERC\)](#).

The relevant GEF Focal Area Tracking Tools will also be completed during the mid-term evaluation cycle.

End of Project:

An independent Final Evaluation will take place three months prior to the final Project Board meeting and will be undertaken in accordance with UNDP and GEF guidance. The final evaluation will focus on the delivery of the project's results as initially planned (and as corrected after the mid-term evaluation, if any such correction took place). The final evaluation will look at impact and sustainability of results, including the contribution to capacity development and the achievement of global environmental benefits/goals. The Terms of Reference for this evaluation will be prepared by the UNDP CO based on guidance from the Regional Coordinating Unit and UNDP-GEF.

The Terminal Evaluation should also provide recommendations for follow-up activities and requires a management response which should be uploaded to PIMS and to the [UNDP Evaluation Office Evaluation Resource Center \(ERC\)](#).

The relevant GEF Focal Area Tracking Tools will also be completed during the final evaluation.

During the last three months, the project team will prepare the Project Terminal Report. This comprehensive report will summarize the results achieved (objectives, outcomes, outputs), lessons learned, problems met and areas where results may not have been achieved. It will also lay out recommendations for any further steps that may need to be taken to ensure sustainability and replicability of the project's results.

Learning and knowledge sharing:

Results from the project will be disseminated within and beyond the project intervention zone through existing information sharing networks and forums.

The project will identify and participate, as relevant and appropriate, in scientific, policy-based and/or any other networks, which may be of benefit to project implementation though lessons learned. The project will identify, analyze, and share lessons learned that might be beneficial in the design and implementation of similar future projects.

Finally, there will be a two-way flow of information between this project and other projects of a similar focus.

M & E Work Plan and Budget

Type of M&E activity	Responsible Party(ies)	Estimated Budget (\$) (Excluding Project Team staff time)	Time-frame
Inception Workshop (IW)	- Project Manager - Chief Technical Adviser - UNDP Country Office (CO) - UNDP/GEF RCU	\$ 5,000	Within first two months of project start-up.
Inception Report	- Project Team - UNDP CO	None	Immediately following IW.
Measurement of Means of Verification for Project Purpose Indicators	- Project Manager will oversee the commissioning of specific studies and institutions, and delegate responsibilities to relevant team members	\$ 5,000 (Note: To be finalized during inception phase and at Inception Workshop).	Start, mid and end of project
Measurement of Means of Verification for Project Progress and Performance (measured on an annual basis)	- Oversight by part-time Chief Technical Adviser and Project Manager - Measurements by regional field officers and local IAs	\$ 5,000 (Note: To be determined as part of the Annual Work Plan's preparation).	Annually prior to APR/PIR and to the definition of annual work plans
Annual Project Report / Project Implementation Review (APR/PIR)	- Project Team - UNDP CO - UNDP/GEF RCU	None	Annually
Tripartite Project Review (TPR) and TPR report	- Government Counterparts - UNDP CO - Project team - UNDP/GEF RCU	None	Annually, upon receipt of APR
Project Board Meetings	- Project Manager	None	Following Project

Type of M&E activity	Responsible Party(ies)	Estimated Budget (\$) (Excluding Project Team staff time)	Time-frame
	- UNDP CO		IW and subsequently at least every six months
Periodic progress reports	- Project Team	None	To be determined by Project Team and UNDP CO
Technical reports, as per project activities	- Project team - Consultants, as needed	Cost to be covered by consultancy budget	To be determined by Project Team and UNDP CO
Mid-term Evaluation	- Project team - UNDP CO - UNDP/GEF RCU - External Consultants (i.e. evaluation team)	\$10,000	At the mid-point of project implementation.
Project Terminal Report	- Project Team - UNDP CO	None	At least one month before the end of the project
Independent Final Evaluation	- Project Team, - UNDP CO - UNDP/GEF RCU - External Consultants (i.e. evaluation team)	\$ 15,000	At the end of project implementation
Lessons learned/Best practices	- Project Team - UNDP/GEF RCU	\$ 5,000	Yearly
Audit	- UNDP CO - Project team	\$ 5,000	Yearly
TOTAL COST Excluding project team staff time and UNDP staff and travel expenses.		\$ 50,000	

7. Legal Context

This document together with the CPAP signed by the Government and UNDP which is incorporated by reference constitute together a Project Document as referred to in the SBAA [or other appropriate governing agreement] and all CPAP provisions apply to this document.

Consistent with the Article III of the Standard Basic Assistance Agreement, the responsibility for the safety and security of the implementing partner and its personnel and property, and of UNDP's property in the implementing partner's custody, rests with the implementing partner.

The implementing partner shall:

- a) put in place an appropriate security plan and maintain the security plan, taking into account the security situation in the country where the project is being carried;
- b) assume all risks and liabilities related to the implementing partner's security, and the full implementation of the security plan.

UNDP reserves the right to verify whether such a plan is in place, and to suggest modifications to the plan when necessary. Failure to maintain and implement an appropriate security plan as required hereunder shall be deemed a breach of this agreement.

The implementing partner agrees to undertake all reasonable efforts to ensure that none of the UNDP funds received pursuant to the Project Document are used to provide support to individuals or entities associated with terrorism and that the recipients of any amounts provided by UNDP hereunder do not appear on the list maintained by the Security Council Committee established pursuant to resolution 1267 (1999). The list can be accessed via <http://www.un.org/Docs/sc/committees/1267/1267ListEng.htm>. This provision must be included in all sub-contracts or sub-agreements entered into under this Project Document.

8. Annexes

ANNEX 1: Small Hydro Development Plan until Year 2012

	Site	Installed capacity (MW)
	New SHPS	
	Chuiskaya Oblast	
1	Shamsinskaya	2.4
2	Alamedinskaya	3.2
3	Suusamyrskaya	14.0
4	Chon-Keminskaya (3 stations x 5 MW each)	15.0
5	Karakolskaya	3.0
	Issyk-Kulskaya Oblast	
6	Chon-Aksuyskaya	10.0
7	Enilchekskaya	2.0
8	Ak-Saiskaya	1.2
9	Ak-Tilecskaya	1.2
10	Ak-Bulun 1	1.2
11	Ak-Bulun 2	1.35
12	Darhan	1.2
13	Kuiluscaya	1.9
14	Turasu	0.5
15	Tamga	2.0
16	Chon-Sary-Oi	1.6
17	Baykchy City Outskirts	22.0
	Narynskaya Oblast	
18	Kokomerenskaya (included in Presidential Decree, although too large to be designated “small”)	70.0
9	Kochkorskaya	3.0
0	Suekskaya	1.6
	Oshskaya Oblast	
21	Karatashskaya	3.0
22	Salamaliskaya	3.0
23	Austanskaya	3.0
	Djalalabadskaya Oblast	
24	Synynskaya	4.4
25	Janyjolskaya	3.5
26	Sarybulakskaya	2.0
27	Sandalashskaya	12.0

	Batkenskaya Oblast	
28	Austan	3.0
	To be constructed on existing hydrological facilities	
29	Kirovskaya SHPS	23.0
30	Orto-Tokoiskaya SHPS, Issyk-Kulskaya Oblast	20.0
31	Papanskaya SHPS, Oshskaya Oblast	20.0
32	Tortkulskaya SHPS, Batkenskaya Oblast	8.0
	Reconstruction	
33	Sokuluk-1, Chuiskaya Oblast	2.0
34	Sokuluk-2, Chuiskaya Oblast	1.2
35	Karabaltinskaya, Chuiskaya Oblast	1.6
36	Arasanskaya, Issyk-Kulskaya Oblast	1.2
37	Leninopolskaya Talaskaya Oblast	1.6
38	At-Bashinskaya, Narynskaya Oblast	40.0
39	Talaskaya, Takaskaya Oblast	0.15
40	Ivano-Alekseevskaya, Talaskaya Oblast	0.123
41	Budenovskaya, Takasskaya Oblast	0.116
	TOTAL	311.24 MW (out of SHPs will constitute 241.24 MW)

* As approved by Presidential Decree No. 365 of 14 October 2008.

ANNEX 2: RISK ANALYSIS

Project Title: Small Hydro Power Development	Award ID:	Date:
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#	Description	Date Identified	Type	Impact & Probability	Countermeasures / Mngt response	Owner	Submitted, updated by	Last Update	Status
1	Institutional: reluctance in some quarters of the Government to introduce the necessary policies/regulations in support of small hydropower development.	During MSP formulation.	Regulatory	Delays in creating conducive environment. P = 1 I = 2	Ensure close collaboration among involved Government entities.	CO to monitor.			
2	Financial: lack of commitment from private and public sector to invest in RE.		Financial	Investors do not follow through with their commitments. P = 1 I = 2	Keep investors apprised of progress in barrier-removal activities.	CO to monitor.			
3	Technical: lack of technical information, knowledge and skills to design and implement small hydro power projects.		Operational	Delays in SHP stations coming on line. P = 1 I = 2	Close monitoring of support provided to Directorate and Ministry's RE Unit.	CO to monitor.			

ANNEX 3: TERMS OF REFERENCE

1. Project Manager

UNITED NATIONS DEVELOPMENT PROGRAMME

GENERIC JOB DESCRIPTION

I. POSITION INFORMATION	
Project title:	Project Manager
Project Number:	
Job Code Title:	
Duration of Employment:	One year with further prolongation
Working nature:	Full-time assignment
Working hours:	
Duty station:	40 hours a week (08:30-17:30; 12:00-13:00 lunch time)
Pre-classified Grade:	Bishkek, Kyrgyzstan
Supervisor:	SC-9 UNDP CO Programme Officer
II. BACKGROUND INFORMATION/OBJECTIVES	
<p>Under the overall supervision of UNDP Programme Officer and in close cooperation with the National Programme Director, the Programme Manager is responsible for the day-to-day management and implementation of the Programme, including all programme and administrative matters. Manager is responsible for protection and consultation of the programme in front of state agencies for increasing capacity of the programme and project cycle.</p> <p><i>The functions/duties/ key results of this job description are generic and not all duties are carried out by all Programme Managers.</i></p>	
III. FUNCTIONS	
<ul style="list-style-type: none"> • Manage and coordinate programme activities, from substantive, administrative and financial points of view, applying strategic planning and systematic coordination of programme activities. • Manage day-to-day programme implementation and overall coordination of programme outcomes. • Ensure supervision of the Programme personnel and ensure effective communication and coordination between the Programme offices and the UNDP Country office in Bishkek. • Provide direction and leadership to programme teams and responsible parties in advocating programme objectives and in ensuring that all interested parties are well informed about the programme activities and goals. • Identify any support and advice required for the management, planning and control of the Programme. • Ensure timely preparation and compilation of the Programme Annual/Quarterly Work Plans and Progress/Final substantial and financial reports and its submission to UNDP CO and NPD as appropriate. • Oversee and direct the Programme staff in implementation of sub-components, including in the development of detailed work plans and action plans for each sub-component, implementation, monitoring and reporting of each sub-component. • Prepare monthly reports for the CO on key programme activities, issues and required action 	

points. Prepare the programme semi annual progress reports (progress against planned activities, update on risks and issues, expenditures), annual review report and final review reports, and submit them to UNDP CO and NPD as appropriate.

- Plan, organize and participate in the transparent tender bidding or request for proposal processes for the selection of implementing partners for sub-projects and ensure the preparation of clear tender bidding evaluation reports.
- Undertake regular monitoring visits to the sub-projects' sites and report to UNDP CO on the status of activities including suggestions for improvements.
- Implement monitoring procedures for sub-projects, linked to progress payments, and ensure that all on-going sub-projects are visited regularly and that the Programme personnel, certify that sub-projects implemented under their responsibility are proceeding as planned.
- Together with the Country Office, prepare funding proposals and progress reports to donor organizations, monitoring, evaluation and lessons learned reports and other relevant programme-related documents, including substantive correspondence for a) resource mobilization, b) partnership building, c) reporting.
- Guide and orient efforts and contributions of consultants, staff and government counterparts towards achievement of programme objectives. Mobilize goods and services to initiate activities, including drafting TORs and work specifications.
- Assist in development of the gender mainstreaming strategy and ensure the mainstreaming of gender into all programme activities.
- Manage programme administrative and security related activities, monitor financial resources and accounting to ensure accuracy and reliability of financial reports.
- Participate in transparent and competitive selection, recruitment, supervision and mentoring of respective programme staff. Ensure efficient HR management, conduct regular performance appraisal exercises for programme staff.
- Represent the Programme, as required, vis-à-vis other UN organizations in Kyrgyzstan, donor organizations, other international organizations, as well as national Government and non-governmental institutions and endeavour to build professional relationships with local, district and regional authorities in order to ensure the full participation of a broad spectrum of national leadership in the identification, planning and execution of programme activities
- Ensure proper professional relationships with community leaders, local NGOs and other Community Based Organizations (as Women associations, Youth associations, etc).
- Establish and maintain relationships and act as the key focal point with UNDP CO to ensure that all programming, financial and administrative matters related to the Programme are transparently, expeditiously and effectively managed, in line with established UNDP Rules and Regulations.
- Verify and channel all requests for programme, administrative, logistical and other support and report all incidents related to security and issues of general concern to UNDP CO.
- Manage the transfer of programme deliverables, documents, files, equipment and materials as per the standards UNDP procedures.
- Ensure establishment and maintenance of proper electronic and paper filing systems.
- Perform other duties that may be required by the PDA or UNDP Senior Management.

IV. RECRUITMENT QUALIFICATIONS/COMPETENCIES

Education:	<ul style="list-style-type: none"> ○ Master degree or equivalent in international development, social sciences, public administration or other relevant field
Experience:	<ul style="list-style-type: none"> ○ 10 years of relevant experience ○ 5 years of managerial experience is required ○ in the field of development cooperation including in grant management ○ Proven ability to draft, edit and produce written proposals and results-focussed reports ○ Proven experience working with Government, civil society,

	international organizations and donors	
	o Experience in the usage of computers and office software packages (MS Word, Excel, etc.)	
Language Requirements:	o Fluency in English and Russian. Knowledge of Kyrgyz is an asset	
V. Signatures- Job Description Certification		
Incumbent <i>(if applicable)</i>		
Name	Signature	Date
Supervisor		
Name	Signature	Date
Chief/Head of Section		
Name	Signature	Date

2. Chief Technical Adviser (Non-resident)

Post Title: Chief Technical Adviser

Office: Project Management Unit

Organisation: Directorate for Small and Medium-scale Power Projects in the Kyrgyz Republic

Duration: 48 weeks (over a 4-year period)

Duty Station: Home Office and Bishkek, Kyrgyzstan

Duties: Under the overall supervision of the National Project Director, the non-resident Chief Technical Adviser will:

- Work closely with the PM in coordinating and facilitating inputs of government agencies, partner organizations, scientific and research institutions, subcontractors, and national and international experts in a timely and effective manner;
- Provide guidance and assistance to the PM and project staff to ensure that the project activities conform to the approved project document;
- Assist the PM during the initial 2 months of the project, in the preparation of an “inception report” which will elaborate on the project Logical Framework Matrix and planned project activities, the 1st year Annual Work Plan and Budget, TORs for key project staff, and an M&E plan;
- Assist the PMU in development of relevant TORs and recruitment/mobilization of qualified national and international experts and organizations as needed to provide specific consultancy and engineering services;
- In close cooperation with the PMU and UNDP’s Focal Point on Energy and Environment, and in consultation with the project partner organizations and stakeholders, prepare Annual Project Work Plans to be agreed upon by the Project Board (PB);
- Provide “on-the-job” technical guidance and mentoring to the PMU in order to strengthen their capacity to effectively implement the technical aspects of the project;
- Support the PM in reporting to the PB on the progress of project implementation and achievement of project results in accordance with the project’s logical framework matrix;
- Support the PMU in project-related meetings, as required;
- Review reports of national and international consultants, project budget revisions, and administrative arrangements as required by UNDP/GEF procedures;
- Assist the PM in the development of a concrete Monitoring and Evaluation Plan at the outset of the project (within inception report);

- Support the PM in preparing project progress reports, information releases, as well as monitoring and review reports in accordance with UNDP/GEF monitoring and evaluation rules and procedures;
- Support the PM in the preparation and implementation of mid-term and final Independent Evaluation Missions (TOR's, identification and recruitment of appropriate candidates, organization of missions, joint field missions and discussion with evaluators, etc);
- Support UNDP CO staff on their annual monitoring visits to project sites.

Qualifications and Experience:

- Postgraduate degree in energy/renewable energy development;
- Minimum ten years of experience in implementing renewable energy projects in combination with knowledge of economic and financial analysis, institutional, regulatory and policy frameworks;
- Good knowledge of and experience with GEF Climate Change issues, operational modalities and familiarity with UNDP-GEF procedures;
- Familiarity with UNDP rules, regulations and administrative procedures;
- Prior knowledge and experience of the political, social and environmental factors and issues related to energy development and climate change mitigation in Central Asia, preferably in Kyrgyzstan;
- Computer proficiency, especially related to professional office software packages;
- Excellent drafting and communication skills.

Languages: Excellent Kyrgyz/Russian and English, both oral and written.

Computer skills: Word, Excel, Access, Internet browsers, e-mail programmes

3. Project Administrative and Finance Assistant
UNITED NATIONS DEVELOPMENT PROGRAMME
GENERIC JOB DESCRIPTION

I. Position Information	
Project title:	Administrative/Finance Assistant
Project Number:	
Job Code Title:	
Duration of Employment:	One year with further prolongation
Working nature:	Full-time assignment
Working hours:	40 hours a week (08:30-17:30; 12:00-13:00 lunch time)
Duty station:	Bishkek, Kyrgyzstan
Pre-classified Grade:	SC-5
Supervisor:	Project Manager
II. Organizational Context	
<p>Under the guidance and supervision of the Programme/Project Manager, the Administrative/Finance Assistant provides administrative/finance services ensuring high quality of work, ensures accurate, timely and properly recorded/documented service delivery. The Administrative/Finance Assistant promotes a client, quality and results-oriented approach.</p> <p>The Administrative/Finance Assistant works in close collaboration with the Operations and Programme Units in the CO and project personnel to ensure consistent service delivery.</p> <p><i>The functions/duties/ key results of this job description are generic and not all duties are carried out by all Administrative/Finance Assistants.</i></p>	

III. Functions / Key Results Expected

Summary of Key Functions:

- Implementation of operational strategies
- Provision of accounting, administrative, procurement, HR and logistical support
- Provision of support to office maintenance and assets management
- Support to knowledge building and knowledge sharing

1. Ensures **implementation of operational strategies**, focusing on achievement of the following results:

- Full compliance of administrative, procurement and HR activities with UNDP rules, regulations, policies and strategies.
- Full compliance of financial processes and financial records with UN/UNDP rules, regulations, policies and strategies
- Provision of inputs to preparation of workplans.

2. Provides **administrative, finance, procurement, HR and logistical support**, focusing on achievement of the following results:

- Interpretation and implementation of procedures and rules related to administrative, procurement, financial and personnel matters and ensure their compliance.
- Administrative support to organization of conferences, workshops, retreats, study tours, etc.
- Arrangement of travel and hotel reservations, preparation of travel authorizations.
- Provision of all necessary support in organization of the above, as well as report to submission to UNDP office.
- Full compliance of procurement activities with UNDP rules, regulations, policies and strategies.
- Timely preparation and updating of procurement plans for the Programme.
- Support to organization of procurement processes including preparation of RFQs, ITBs or RFPs documents, receipt of quotations, bids or proposals, their preliminary evaluation.
- Preparation of requests with all supporting documents for issuance of Purchase orders, contracts, subcontracts and other documents related to procurement of goods and services.
- Creation of requisitions in Atlas, registration of goods receipt in Atlas, budget check for requisitions.
- Serving as a focal point in procurement processing for the Programme/Project
- Undertaking joint procurement activities under combined Purchase Orders for stationery, computer hardware, photocopiers; joint contracts for computer maintenance, air-conditioning maintenance, shipping services, etc.
- Certifying availability of funds and ensuring that the activities are in line with the approved workplan and budget levels.
- Monitoring regularly the Programme budget, provision of timely advice to the Programme Coordinator on fund limitations and obtaining approval of budget revision(s) from UNDP.
- Provision of information for reports on financial status, procedures, exchange rates, costs and expenditures and potential funding problems.
- Assistance in proper control of the supporting documents for payments and financial reports for the Programme/Project; payment execution and monitoring payment status.
- Preparation of budget revisions per established rules.
- Ensuring the accurate book-keeping of advance funds received and preparation of reports, where relevant.
- Processing of financial documentation (vouchers, supporting documents, etc.) and maintaining internal

<p>expenditures control system by ensuring that vouchers processed are matched and completed, transactions are correctly recorded and posted in Atlas; travel claims, monthly payment orders (MPOs) and other entitlements are duly processed.</p> <ul style="list-style-type: none"> • Maintenance of Petty Cash • Preparation and handling the routine correspondence related to general administration, procurement, financial and personnel matters; faxes; memoranda and reports in accordance with UNDP rules and procedures. • Maintenance of files related to personnel, finance, procurement, administrative, logistical, programme/project matters. • Checking vehicle logs and preparation of the draft vehicle history reports and maintenance plans. • Assistance to the Audit and prepare necessary documents • Performance of other duties as and when required • Ensure timely extension of personnel contracts. 	
<p>4. Provides support to office maintenance and assets management, focusing on achievement of the following results:</p> <ul style="list-style-type: none"> • Monitoring the Inventory Records, maintain the records and files on assets management, distribute the stationery to personnel and provide advice on procurement of goods to avoid unnecessary purchase. • Maintenance of files and records relevant to office maintenance. 	
<p>5. Provides support to knowledge building and knowledge sharing in the CO, focusing on achievement of the following results:</p> <ul style="list-style-type: none"> • Participation in the training for the operations/projects staff on administration, procurement, finance and HR. • Briefing personnel on general administrative, financial and personnel matters. 	
<p>IV. Recruitment Qualifications</p>	
Education:	<ul style="list-style-type: none"> ○ Higher education in economics, management, accounting, finance or other relative fields ○ Specialized training in finance is desirable.
Experience:	<ul style="list-style-type: none"> ○ 3 years of relevant administrative, accounting and financial experience at national and/or international level is required. ○ Experience in the usage of computers and office software packages (MS Word, Excel, etc.). ○ Previous experience of working for nationally executed programme (s) funded by UNDP is an asset. ○ Practical experience in procurement is an asset
Language Requirements:	<ul style="list-style-type: none"> ○ Fluency in English and Russian. Knowledge of Kyrgyz is an asset

V. Signatures- Post Description Certification		
Incumbent (<i>if applicable</i>)		
Name	Signature	Date
Supervisor		
Name / Title	Signature	Date
Programme/Project Manager		
Name / Title	Signature	Date

ANNEX 4: LETTERS OF CO-FINANCING AND SUPPORT FROM THE GOVERNMENT

Provided in separate file

SIGNATURE PAGE

Country: Kyrgyzstan

UNDAF Outcome (s): A.2: The poor and vulnerable groups have increased and more equitable access to quality basic social services and benefits, in a strengthened pro-poor policy environment.

CPAP Outcome (s): A.2.9: Global environmental principles integrated into grass roots poverty reduction efforts

CPAP Outcome Indicator (s):

- The Coordination Body for Sustainable Development (CBSD) is able to design and implement priority environmental management and sustainable development initiatives;
- Expanded collaboration between key stakeholders in the area of environmental management for sustainable development on national and sub-regional levels;
- Increased institutional capacity to implement international conventions and agreements;
- New financial mechanisms and partnerships are introduced for the environmental protection

Executing Entity/Implementing Partner: Ministry of Energy.

Implementing entity/Responsible Partner: Directorate for Small and Medium-scale Power Projects in the Kyrgyz Republic.

Programme Period:	2005-2010	Total resources required	\$ 22, 230, 000
Atlas Award ID:	tbd	Total allocated resources:	_____
Project ID:	tbd	• Regular	\$ 100,000
PIMS #	3134	• Other:	
Start date:	Jan. 2010	o GEF	\$ 950,000
End Date	Dec 2013	o MDG Carbon Facility	\$ 280,000
Management Arrangements	NEX	o UNDP-EU IWRMP	\$ 200,000
PAC Meeting Date	November 2009	o Private sector	\$ 20,000,000
		In-kind contribution:	
		Govt	\$ 800,000

Agreed by (Government):

NAME	SIGNATURE	Date/Month/Year
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Agreed by (Executing Entity/Implementing Partner):

NAME	SIGNATURE	Date/Month/Year
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Agreed by (UNDP):

NAME	SIGNATURE	Date/Month/Year
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