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**Project Document for nationally implemented projects
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Project title: Derisking Renewable Energy Investment	
Country: Kazakhstan	Implementing Partner: Ministry of Energy
Management Arrangements: National Implementation Modality (NIM)	
UNDAF/Country Programme Outcome: Environmental Sustainability. By 2015, communities, national and local authorities use more effective mechanisms and partnerships that promote environmental sustainability and enable them to prepare, respond and recover from natural and man-made disasters.	
UNDP Strategic Plan Output: Output 1.4	
UNDP Social and Environmental Screening Category: Moderate	UNDP Gender Marker: GEN1
Atlas Project ID/Award ID number: 00097249	Atlas Output ID/Project ID number: 00101058
UNDP-GEF PIMS ID number: 5490	GEF ID number: 9192
Planned start date: May 2017	Planned end date: April 2022
LPAC date: TBD	
<p>Brief project description: The objective of the project is to promote private sector investment in renewable energy in Kazakhstan to achieve Kazakhstan’s 2030 and 2050 targets for renewable energy. The project targets both large-scale and small-scale renewable energy. The goal of this project is to achieve energy market transformation in Kazakhstan by significantly scaling-up the deployment of renewable energy in electricity generation, from a 0.77% share of renewable energy to a 10% share by 2030, which makes for 10-fold increase in renewable energy-based energy generation to be facilitated by the project. In large-scale renewable energy, the project will promote Kazakhstan as a prime destination for international investment. Technologies will include wind energy and solar photovoltaic (PV). In small-scale renewable energy, the project will promote investment in “RES for urban life”, on-grid small-scale renewable energy applications, targeting urban households and businesses; and “RES for rural life”, both on-grid and off-grid small-scale renewable energy applications, targeting farms and rural SMEs. Technologies may include solar PV (roof-top), solar water heating and small-scale wind. The project will promote the latest business and finance models for small-scale RES developers (for example, third-party ownership models). The design and implementation of this project make use of the ‘Derisking Renewable Energy Investment’ (DREI) methodology developed by UNDP, which is a model for quantitative and qualitative comparison of the cost-effectiveness of different public instruments in promoting renewable energy investment.</p>	

FINANCING PLAN		
GEF Trust Fund or LDCF or SCCF or other vertical fund (US\$)		4,510,000 USD
UNDP TRAC resources (US\$)		0 USD
Cash co-financing to be administered by UNDP (US\$)		100,000 USD
(1) Total Budget administered by UNDP (US\$)		4,610,000 USD
PARALLEL CO-FINANCING <i>(all other co-financing that is not cash co-financing administered by UNDP) (US\$)</i>		
Ministry of Energy		3,250,000
Eurasian Development Bank		30,000,000
Ergonomika Ltd		1,500,000
JSC International Center for Energy Efficiency "ProEco"		800,000
JSC Astana Solar		13,960,000
Nazarbaev University (Kuntech)		300,000
KazGBC (Kazakhstan Green Building Council)		300,000
Enkom ST LLP		800,000
(2) Total co-financing (US\$)		50,910,000
(3) Grand-Total Project Financing (1)+(2) (US\$)		55,520,000
SIGNATURES		
Signature: print name below	Agreed by Government	Date/Month/Year:
Signature: print name below	Agreed by Implementing Partner	Date/Month/Year:
Signature: print name below	Agreed by UNDP	Date/Month/Year:

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LIST OF ACRONYMS

AAO	Associations of Apartment Owners and Tenants
AFC	Astana Financial Centre
ANMR	Agency of the Republic of Kazakhstan on Regulation of Natural Monopolies
APA	Annual Plan of Actions
AsDB	Asian Development Bank
AWP	Annual Work Plan
BAU	Business-as-usual
CD	Country Director
CDR	Combined Delivery Reports
CHP	Combined Heat and Power
CO	UNDP Country Office
CO ₂	Carbon dioxide
CTF	Clean Technology Fund
DAMU	Entrepreneurship Development Fund
DCD	Deputy Country Director
DREI	Derisking Renewable Energy Investment
DRR	Deputy Resident Representative
EBRD	European Bank for Reconstruction and Development
EE	Energy Efficiency
EIA	Environmental Impact Assessment
EIB	European Investment Bank
EMS	Energy Management System
EMIS	Energy Management Information System
ERC	UNDP Evaluation Resources Center
ESIA	Environmental and Social Impact Assessment
EU	European Union
EUR	Euros
FFSA	Fund for Financial Support of Agriculture
FiT	Feed in Tariff
FSP	Full sized project
GDP	Gross Domestic Product
GEF	Global Environment Facility
GEF Sec	Global Environment Facility Secretariat
GHG	Greenhouse Gas
GWh	Gigawatt hour
HQ	UNDP Headquarters
IDB	Islamic Development Bank
IEO	Independent Evaluation Office
IFC	International Finance Corporation
IFI	International Financial Institutions
INV	Investment
IPP	Independent Power Producer
IRRF	Integrated Results and Resources Framework
KCCMP	Kazakhstan Climate Change Mitigation Program
KEGOC	Kazakhstan Electricity Grid Operating Company
KZT	Kazakhstan Tenge
LCOE	Levelized cost of electricity
LULUCF	Land use, land-use change and forestry
MoE	Ministry of Energy
M&E	Monitoring and Evaluation
MRV	Monitoring, Reporting and Verification
MTR	Mid-term review

MW	Mega watt
NGO	Non-Governmental Organization
NIM	National Implementation Modality
NIMBY	Not in my backyard
OFP	Operational Focal Point
O&M	Operation & Maintenance
PAC	Project Appraisal Committee
PIF	Project Identification Form
PIR	GEF Project Implementation Review
PM	Project Manager
PMU	Project Management Unit
POPP	Programme and Operations Policies and Procedures
PPA	Power Purchase Agreement
PPG	Project Preparation Grant
PPP	Public private partnership
PRI	Political risk insurance
PSC	Project Steering Committee
PT	Project Team
PV	Photovoltaic
QA	Quality Assurance
QPR	Quarterly Progress Report
RCU	UNDP Regional Coordination Unit
RE	Renewable Energy
RESCO	Renewable Energy Service Company
RR	Resident Representative
RTA	Regional Technical Advisor
SBAA	Standard Basic Assistance Agreement
SCTM	Standing Conference of Towns and Municipalities
SESP	Social and Environmental Screening Procedure
SME	Small and medium-size enterprise
SNC	Second National Communication
SSTrC	South-South and Triangular Cooperation
STAP	GEF Scientific and Technical Advisory Panel
SWH	Solar water heater
TA	Technical assistance
TE	Terminal Evaluation
TOR	Terms of reference
TPR	Tripartite Review
TTR	Terminal Tripartite Review
WB	World Bank
UNDAF	United Nations Development Assistance Framework
UNDP	United Nations Development Programme
UNDP-GEF	UNDP Global Environmental Finance Unit
UNEP	United Nations Environment Programme
UNFCCC	United Nations Framework Convention on Climate Change
USAID	United States Agency for International Development
WRTB	Wind rotor turbines

II. DEVELOPMENT CHALLENGE

1. Kazakhstan's 2050 Strategy aims at entering the country into the 30 most developed countries in the world by 2050. This aim will require maintaining sustained socio-economic development and creation of a favourable environment for foreign investments.
2. Currently, Kazakhstan's economy is heavily dependent on fossil fuel revenues and is affected considerably by fluctuations in oil prices. According to the Concept of Transition to Green Economy, Kazakhstan's peak oil production will be reached in 2030-2040 followed by a steady decrease in oil exports.
3. The total installed capacity in Kazakhstan in 2015 was 20,600 MW, and the available capacity was 17,503 MW (KEGOC 2016). The installed capacity includes approximately 18,000 MW of CHP, 2,500 MW of hydro power and 252 MW of renewables, of which wind contributes 70 MW, hydro 125 MW and solar 57 MW. The share of energy sources is coal – 73%, oil and gas – 18%, hydropower – 8% and renewable energy – 0.8%¹.
4. Many of the generating stations in Kazakhstan are aging and in need of renewal; 57% of the power grid was deteriorated in 2013 and the number of deteriorating plants is expected to grow. The investments required to boost the economy and sustain the development of the power sector after 2040 are estimated at US\$100 billion, with half of the investments needing to target the development of the renewable energy sector.
5. In Kazakhstan, 40% of heat production comes from centralized district heating systems run on combined heat and power plants. The remaining heat is produced by heat-only boilers, which often have low efficiencies. The industry consumes about 69% of produced electricity and buildings consume 20% of produced electricity (Ministry of Investment and Development of Kazakhstan, 2016).
6. The electricity tariffs in Kazakhstan for individual users have been growing due to the high degree of wear of the existing generating assets. On average, the residential tariffs have risen by 4% during 2015, however some regions of Kazakhstan experienced rises of up to 40%. The tariffs for companies are on average 30% higher than tariffs for individual end-users.
7. One of the issues, concerning all Kazakhstan regions, is the supply of energy to remote rural consumers: about 255 settlements and 9,000 farms are not connected to the national grid. Kazakhstan's large scale and low population density in rural areas necessitates the development of additional transmission lines, the maintenance of which will inevitably increase the energy cost. Small-scale off-grid renewables could provide an economically feasible option for consumers in remote areas of Kazakhstan.
8. Kazakhstan is by far the largest GHG emitter in Central Asia with annual emissions of 284 Mt CO_{2e} in 2012. In relative terms, it has one of the world's highest GHG emissions per capita (16.9 tCO₂) (Kazakhstan National Inventory Report to UNFCCC, 2014) and the energy intensity of its economy – 0.68 toe per 1,000 US\$ of GDP – is almost six times that of Western Europe (0.11) and almost triple that of the US (0.24). GHG emissions have been steadily rising since the early 2000s, when the emissions bottomed out at around 146 Mt CO_{2e}, or 41% of the 1990 peak level of 358 Mt CO_{2e} (Figure 1). In the energy sector, which is the largest GHG emitting sector accounting for 85% of all emissions, the rise in GHG emissions was mostly caused by steady economic growth/increased energy demand and a high reliance on GHG intense fuels (predominantly coal), as well as by outdated and inefficient energy generation and transmission infrastructure. Coal makes up some 75-80% of fuel in electricity power generation whereas renewable energy accounts only for roughly 10% (U.S. Energy Information Administration, International Energy Statistics Database). However, without large hydropower, renewable energy contributes only 0.06% of Kazakhstan's total primary energy supply (UNDP, 2014).

¹ From <http://energo.gov.kz/index.php?id=5472>, retrieved from January-March 2016

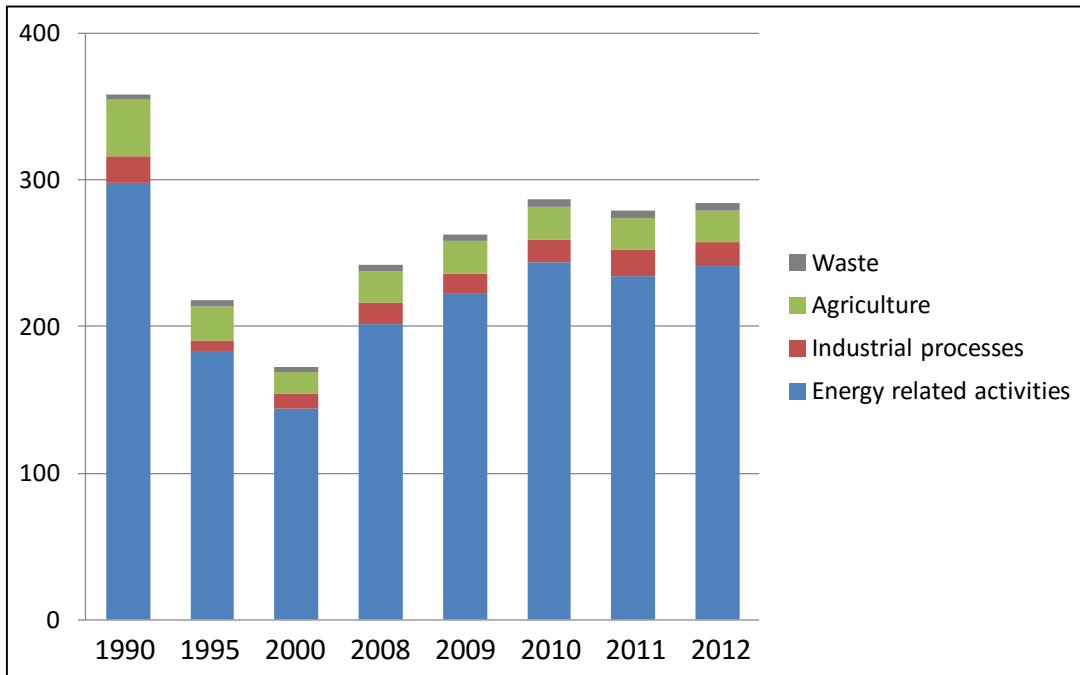


Figure 1: GHG emissions by sector, in millions of tons of CO₂eq excluding LULUCF

Source: Graph based on data from Kazakhstan National Inventory Report to UNFCCC, 2014

9. Kazakhstan, however, has enormous renewable energy potential, particularly from solar and wind (Figure 2). It is estimated that the country has the potential to generate 10 times as much power as it currently needs from wind energy alone. Increased renewable energy deployment could increase the reliability of electricity supply and decrease GHG emissions and carbon intensity. A more reliable and efficient energy supply will benefit Kazakhstan’s energy customers, economy and the environment.

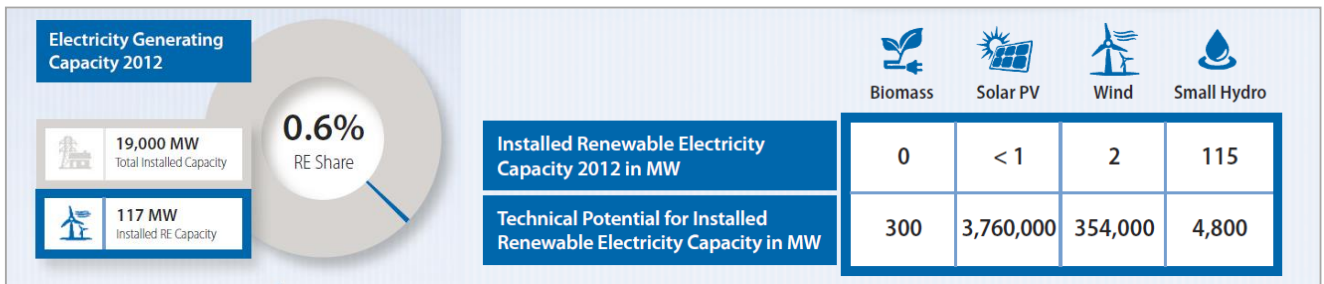


Figure 2: Installed Electricity Capacity and Technical Potential of Renewable Sources in Kazakhstan

Source: UNDP 2014, Renewable Energy Country Snapshot Kazakhstan

Baseline scenario

10. The Kazakh “Concept for Transition to a Green Economy” (Government decree N79, May 30, 2013) sets targets for renewables as outlined in Table 1, which include:

- 10% share of renewable energy in generation by 2030
- 40% share of renewable energy in generation by 2050.

Table 1: Targeted installed capacity for 2030 and 2050 in basic and green economy development scenarios

	2012	2030	2050
Share of renewable energy in total power production (%)	0.3	10.05-11.05*	40
Total installed capacity, excluding large hydro (GW)	0.18	5.5	30
GHG emissions (billion tonnes)	91	77-79*	59-65*

Source: Concept for Transition to Green Economy (Government decree N79, May 30, 2013)

* The range reflects variations within different development scenarios which are based on level of energy demands and gas prices

11. The Government of Kazakhstan has demonstrated support to develop renewable energy and has adopted a few important initiatives, which boosted investors' interest in renewable energy projects (Annex L. Kazakhstan Renewable Energy Policy Overview). Thirty-four wind projects and twenty-eight solar energy projects were consequently submitted to the Ministry of Energy, and included in development plans for the period up to 2020 as of 1 May 2015 (Ministry of Energy of Kazakhstan, 2016) but remain to be implemented. The capacity of these wind energy developments amounted to 1,787 MW and for solar to 713.5 MW. However, many of these projects may no longer be feasible as a result of the devaluation of the Tenge in August 2015²: in July 2016, the feed in tariffs (FiTs) were equivalent to US\$0.067 for wind and US\$0.102 for solar PV.

12. Currently, there are only two solar energy projects implemented in Kazakhstan: Kapshagay Solar Plant (Almaty Region) with a total capacity of 2 MW and Burnoye Solar Plant (Zhambul Region) with a total capacity of 50 MW. Both projects are (co)-owned by the Samruk Kazyna Invest LLP, part of Samruk Kazyna, the state-owned Kazakh sovereign wealth fund. Burnoye Solar Plant is co-owned by the UK-based company United Green LLP and is funded by the European Bank for Reconstruction and Development (EBRD) and the Clean Technology Fund (CTF). According to the EBRD (2015), a loan of €70 million was provided by the bank, while €13.8 was covered by the CTF.

13. Samruk Green Energy is developing two other solar projects (1 MW and 5 MW) within the framework of the Agreement between the Governments of Kazakhstan and China, and is also considering expansion of the Kapshagay solar power plant by up to 50 MW (Kazeurope, 2016).

14. The current wind projects in Kazakhstan include:

- Ereymentau Wind Farm is a 50 MW project developed by Samruk Energy JSC using a loan from the EBRD and the CTF. Samruk Energy is 100% owned by Samruk Kazyna.
- Kordai Wind Farm is a 21 MW project developed by Vista International using measurements and feasibility studies completed by the UNDP 'Kazakhstan – Wind Power Market Development Initiative' Project. The project finance consisted of KZT 450 million of equity and KZT 3 billion of debt (Forbes Kazakhstan 2014).

15. Another wind energy project, under construction in Shuisk Region with a total capacity of 100 MW (Kazeurope, 2016), is going to be launched at the Expo 2017. The FiT³ for this project has been agreed in conjunction with Resolution 148 of March 2015 and is set three times higher than the usual tariff.

² The originally established FIT, adopted in 2014, for wind was KZT 22.68 per kWh and for solar - KZT 34.61 per kWh (USD 0.12 and USD 0.19 respectively in January 2015). Solar projects with a capacity of up to 37 MW using locally produced modules are entitled for a special tariff of KZT 70 per kWh (US\$ 0.38 in January 2015).

³ The RES law specifies two tariffs: fixed tariffs established for solar, wind, etc., which is used by the Settlement Center in the PPA when acquiring the power from the RE producers; and feed-in-tariff – which is used by the Settlement Center for further sale of acquired RE power to the traditional energy companies. In this connection, the terminology on FiT used worldwide and the terminology used in Kazakhstan RES law may not be the same.

16. A variety of investment risks associated with early-stage renewable energy prevents the growth of the renewable energy market in Kazakhstan. As outlined in the section below, the ‘Derisking Renewable Energy Investment’ (DREI) methodology, developed by UNDP⁴, has been applied in the design of this project to identify and understand the main categories of risks and underlying barriers for investment in both large/utility-scale renewable energy projects and decentralized small-scale (off-grid and on-grid) renewable energy applications.

DREI Analysis

17. In 2013, UNDP issued the Derisking Renewable Energy Investment report (the “DREI report”) (Waissbein et al., 2013) that introduced an innovative methodology (the “DREI methodology”), with an accompanying financial tool in Microsoft Excel, to quantitatively compare the cost-effectiveness of different public instruments in promoting utility-scale renewable energy investments. The DREI methodology is designed to be tailored to a specific renewable energy technology and national context.

18. A key focus of the DREI methodology is on financing costs for renewable energy. While technology costs for renewable energy have fallen dramatically in recent years, private sector investors in renewable energy in developing countries still face high financing costs (both for equity and debt). These high financing costs reflect a range of technical, regulatory, financial and informational barriers and their associated investment risks. Investors in early-stage renewable energy markets, such as those of many developing countries, require a high rate of return to compensate for these risks.

19. In seeking to create an enabled environment for private sector renewable energy investment, policy-makers typically implement a package of public instruments. From a financial perspective, the public instrument package aims to achieve a risk-return profile for renewable energy that can cost-effectively attract private sector capital. Figure 3 below, from the original DREI report, identifies the four key components of a public instrument package that can address this risk-return profile.

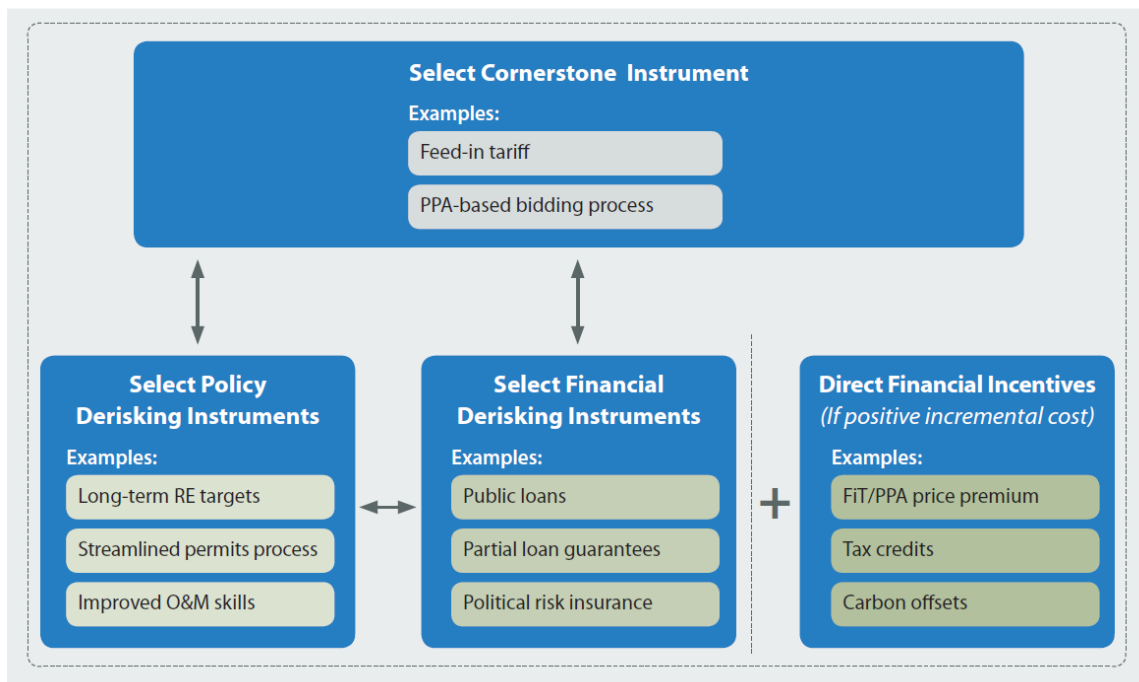


Figure 3: Typical components of a public instrument package for large-scale renewable energy
 Source: Derisking Renewable Energy Investment (UNDP, 2013)

⁴ Detailed information about DREI is available at www.undp.org/drei

20. The cornerstone instrument is the centrepiece of any public instrument package. For large-scale renewable energy, the cornerstone instrument is typically a Feed-in Tariff (FiT) or a tendering process, either of which allows independent power producers (IPPs) to enter into long-term (e.g. 15-20 year) power purchase agreements (PPAs) for the sale of their electricity. The cornerstone instrument can then be complemented by three core types of public instruments:

21. Instruments that reduce risk, by addressing the underlying barriers that are the root causes of investment risks. These instruments utilise policy and programmatic interventions. An example might involve a lack of transparency or uncertainty regarding the technical requirements for renewable energy project developers to connect to the grid. The implementation of a transparent and well-formulated grid code can address this barrier, reducing risk. The DREI methodology terms this type of instrument “policy derisking”.

22. Instruments that transfer risk, shifting risk from the private sector to the public sector. These instruments do not seek to directly address the underlying barrier but, instead, function by transferring investment risks to public actors, such as development banks. These instruments can include public loans and guarantees, political risk insurance and public equity co-investments. For example, the credit-worthiness of a PPA may often be a concern to lenders. To address this, a development bank can guarantee the PPA, taking on this risk. The DREI methodology terms this type of instrument “financial derisking”.

23. Instruments that compensate for risk, providing a financial incentive to investors in the renewable energy project. When risks cannot be reduced or transferred, residual risks and costs can be compensated for. These instruments can take many forms, including price premiums as part of the electricity tariff (either as part of a PPA or FiT), tax breaks and proceeds from the sale of carbon credits. The DREI methodology calls these types of instruments “direct financial incentives”.

24. As set out in Figure 4 below, the DREI methodology is organised into a framework with four stages, each of which is, in turn, divided into two steps. The DREI methodology acts as a key conceptual basis for this project, guiding both the project’s design and implementation. This section presents a full quantitative application of the DREI methodology for utility-scale renewables, and an initial qualitative application of the DREI methodology for small-scale renewables.

DREI Analysis for Utility-Scale Renewables

25. For utility-scale renewable energy, a full quantitative DREI analysis was performed during the project’s design. This analysis models the selection of public instruments to attract private sector investment in utility-scale on-grid wind and solar PV. To assess the risk environment, an initial taxonomy of nine investment risk categories was developed for Kazakhstan’s context. Definitions of these risk categories, together with their underlying barriers, are set out in Table 2.

26. The modelling assumes 2021 (5 year) investment targets of 1 GW in wind energy and 250 MW in solar PV. These targets can be viewed as the first, phased step to achieving the government’s official 2030 targets of 5 GW in wind energy and 500 MW in solar energy, as set out in its Green Economy Concept Note (2013)

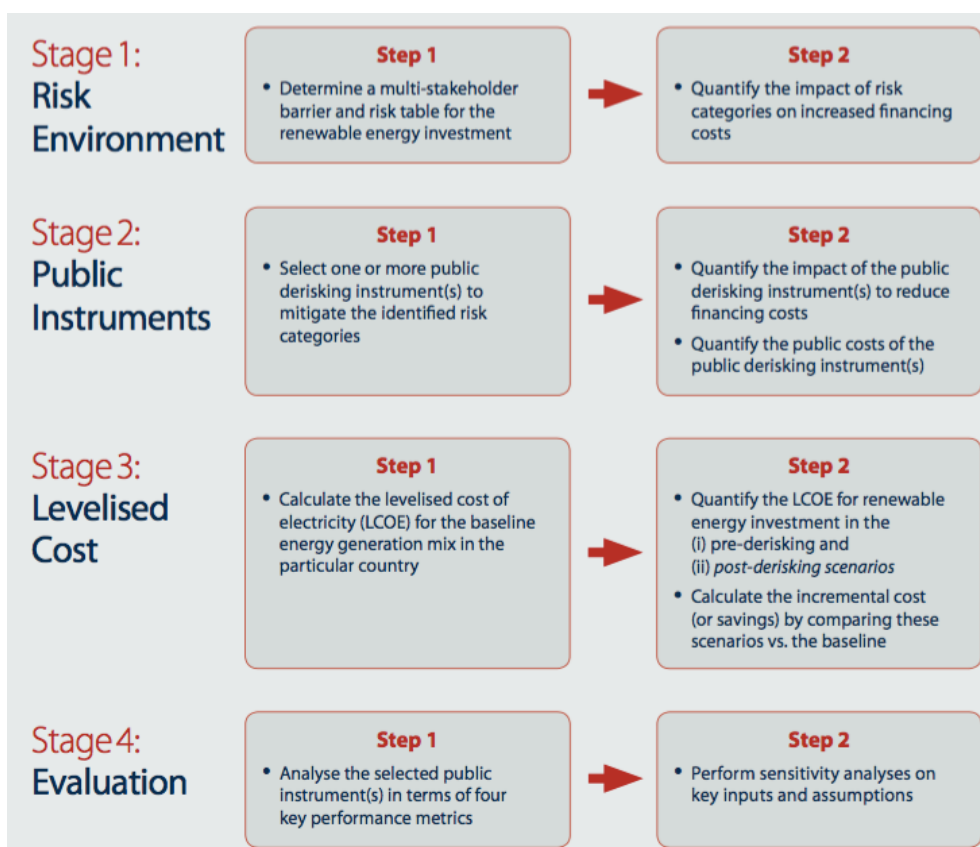


Figure 4: Overview of the DREI methodology for selecting public instruments to promote renewable energy investment

Source: Derisking Renewable Energy Investment (UNDP, 2013)

Table 2: Barriers and risks for large-scale renewable energy development in Kazakhstan

Risk Category	Risk Definition	Underlying Barriers
1. Power Market risk	Risk arising from limitations and uncertainties in the power market, and/or sub-optimal regulations to address these limitations	<i>Market outlook:</i> lack of or uncertainties regarding government’s renewable energy strategy and targets <i>Market access and prices:</i> limitations related to energy market liberalization; uncertainty related to access, the competitive landscape and price outlook for renewable energy; limitations in design of standard PPAs and PPA tendering procedures (in the renewable energy auctions that are currently being developed). <i>Market distortions:</i> high fossil fuel subsidies. Indeed Kazakhstan has some of the lowest retail tariffs in the world, a function of consumption subsidies for fossil fuels, low cost generation from outdated power plants, and non cost-reflective tariff pricing.
2. Permits risk	Risk arising from the public sector’s inability to efficiently and transparently administer renewable energy-related approval process	Labour-intensive, complex processes and long timeframes for obtaining licences and permits (generation, EIAs, land title) for renewable energy projects. In Kazakhstan, this particularly relates to land allocation rules and procedures as reflected in the 1 July 2016 Land Code.
3. Social Acceptance risk	Risks arising from lack of awareness and resistance to renewable energy in communities and end-users	Lack of awareness of renewable energy among key stakeholders including end-users, residents and special interest groups (e.g. unions)

Risk Category	Risk Definition	Underlying Barriers
		Social and political resistance related to NIMBY concerns, special interest groups
4. Developer risk	Risks arising from limitations in the developer's capability to efficiently and effectively plan, design, install, operate and maintain the renewable energy plant	<p><i>Resource assessment and supply:</i> inaccuracies in early-stage assessment of renewable energy resource</p> <p><i>Planning, construction, operations and maintenance:</i> uncertainties related to securing land; sub-optimal plant design; lack of local firms offering construction, maintenance services; lack of skilled and experienced local staff; limitations in civil infrastructure (roads, etc.)</p> <p><i>Purchase of hardware:</i> developer's lack of information on quality, reliability and cost of hardware; lack of suitability of hardware to local climatic and physical conditions</p>
5. Grid/ Transmission risk	Risks arising from limitations in grid management and transmission infrastructure	<p><i>Grid code and management:</i> Lack of standards for the integration of intermittent, renewable energy sources into the grid; limited experience or suboptimal track-record off-grid operator with intermittent sources (e.g., grid management and stability)</p> <p><i>Transmission infrastructure:</i> inadequate or antiquated grid infrastructure, including lack of transmission lines from the renewable energy source to load centres; uncertainties related to construction of new transmission infrastructure</p>
6. Counterparty risk	Risks arising from limitations in the developer's ability to efficiently and effectively design, install, operate, maintain and monitor application	Limitations in the settlement centre's (electricity purchaser) credit quality, corporate structure and operational track-record; unfavourable policies regarding cost-recovery arrangements of the traditional power producers
7. Financial Sector risk	Risks arising from the lack of information and track record on financial aspects of renewable energy, and general scarcity of investor capital (debt and equity), in the country	<p><i>Capital scarcity:</i> Limited availability of local or international capital (equity/and or debt) for green infrastructure due to, for example: under-developed local financial sector, policy bias against investors in green energy</p> <p><i>Limited experience with renewable energy:</i> Lack of information, assessment skills and track-record for renewable energy projects amongst investor community; lack of network effects (investors, investment opportunities) found in established markets; lack of familiarity and skills with project finance structures</p>
8. Political risk	Risks arising from country specific governance and legal characteristics	<p>Uncertainty or impediments due to war, terrorism, and/or civil disturbance</p> <p>Uncertainty due to high political instability; poor governance; poor rule of law and institutions</p> <p>Uncertainty or impediments due to government policy (currency restrictions, corporate taxes)</p>
9. Currency/ Macro-economic risk	Risks arising from the broader macroeconomic environment and market dynamics	<p>Uncertainty due to volatile local currency; unfavourable currency exchange rate movements</p> <p>Uncertainty around inflation, interest rate outlook due to an unstable macroeconomic environment</p>

Preliminary Modelling Results

27. **Risk Environment (Stage 1):** Data on the risk environment were gathered from interviews held with 12 domestic and international project developers and investors who are considering, or are actively involved in, large-scale wind and solar PV investment opportunities in Kazakhstan. The results estimate the business-as-usual cost of financing in Kazakhstan today for wind energy and solar PV to be 16.0% for the cost of equity (USD) and 7.0% for the cost of debt (USD). These are substantially higher than in the best-in-class country, Germany, which is estimated as 7.0% for the cost of equity and 3.0% for the cost of debt.

28. As shown in later results, over the long lifetime of energy investments, the impact of Kazakhstan's higher financing costs on the competitiveness of renewable energy is significant. Figure 5 shows how a range of investment risks currently contribute to these higher financing costs for wind energy and solar PV in Kazakhstan⁵. The risk categories with the largest impact on elevated financing costs are power market risk, counterparty risk, financial sector risk and currency risk. Power market risk relates to uncertainty around market access and prices, and limitations in the regulatory environment and legislation for power markets. Counterparty risk is associated with uncertainty about the credit worthiness of the Settlement Centre. Financial sector risk relates to the scarcity of capital from international and domestic markets. Currency risk relates to the fluctuations in the Tenge vis-a-vis the currency in which financing costs are denominated. The other significant risk categories include financial sector risk and grid / transmission risk.

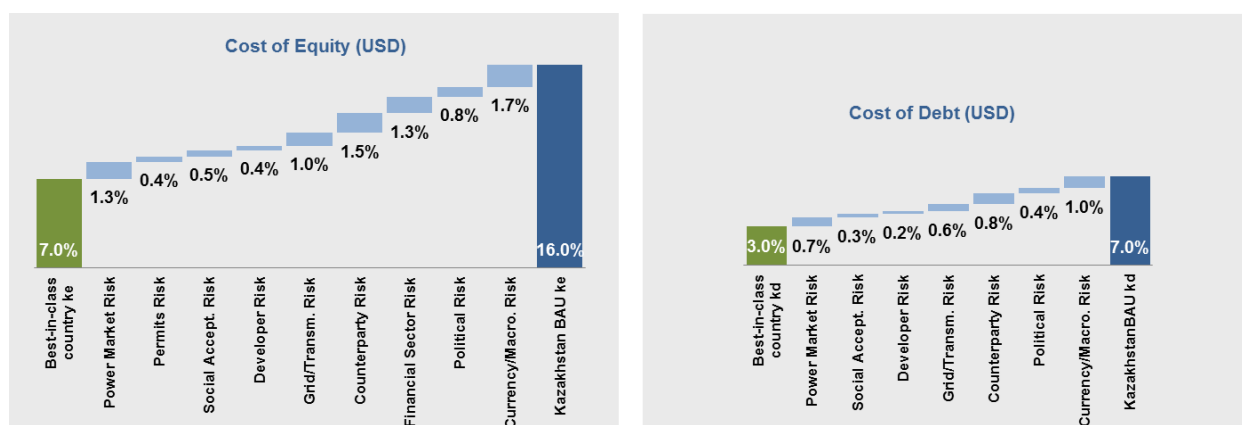


Figure 5: Impact of risk categories on financing costs for wind energy and solar PV investments in Kazakhstan, business-as-usual scenario (preliminary findings)

Source: interviews with wind energy and solar PV investors and developers; modelling; best-in-class country is assumed to be Germany.

29. **Public Instrument Selection (Stage 2):** The modelling then analyses the implementation of a package of public instruments, containing both policy and financial derisking instruments, to promote investment to achieve the analysis' 2021 (5 year) targets. The instruments are selected to target the risk categories identified for Kazakhstan specifically in the financial cost waterfalls. A list of these public derisking instruments is shown in Table 3. For wind energy⁶, the costs until 2030 for policy derisking instruments are estimated as being US\$ 6.3 million, and for financial derisking instruments US\$ 269.3 million. For solar PV⁷,

⁵ Equity investors in renewable energy typically have greater exposure to development risks. The modelling uses the full set of 9 risk categories for equity investors. The 'permits risk' and 'financing risk' categories are removed for debt investors, assuming that banks will have prerequisites, such as having licenses, technical feasibility studies, and equity financing in place, before considering a funding request. As such, the modelling uses 7 risk categories for debt investors.

⁶ Different methodological approaches (e.g., face value, reserve, cost, no-cost) may be taken to costing financial derisking instruments. Here, a cost approach has been taken for the 'take or pay clause in PPA', 'government guarantee for PPA', and 'currency indexation', totaling USD 116.5 m; a reserve approach has been taken for 'public loans', totaling USD 152.8 m

⁷ As in the case of wind energy (see previous footnote), for solar PV, too, a cost approach has been taken for the 'take or pay clause in PPA', 'government guarantee for PPA', and 'currency indexation', totaling USD 22.7 m; a reserve approach has been taken for 'public loans', totaling USD 30.4 m

the policy derisking instruments are estimated as costing US\$ 0.9 million, and the financial derisking instruments US\$ 53.2 million.

Table 3: Selection of public instruments to achieve the investment targets for wind energy and solar PV

Risk Category	Policy Derisking Instruments	Financial Derisking Instruments
Power Market Risk	<ul style="list-style-type: none"> Update transparent, long-term national renewable energy strategy Establish and run IPP bidding process, with standardized PPA Establish a renewable energy office in the regulator 	NA
Permits Risk	<ul style="list-style-type: none"> Streamlined process for RE permits (dedicated one-stop shop) Contract enforcement and recourse mechanisms 	NA
Social Acceptance Risk	<ul style="list-style-type: none"> Awareness-raising campaigns 	NA
Developer Risk	<ul style="list-style-type: none"> Technology R&D Support for industry associations 	NA
Grid/Transmission Risk	<ul style="list-style-type: none"> Strengthen KEGOC’s grid management capacity Transparent, up-to-date grid code Policy support for long-term national transmission/grid road-map 	<ul style="list-style-type: none"> Take-or-pay clause in PPA⁸
Counterparty Risk	<ul style="list-style-type: none"> Reform and maintain creditworthy Settlement Centre structure 	<ul style="list-style-type: none"> Government guarantee for PPA payments Public loans to IPPs
Financial Sector Risk	<ul style="list-style-type: none"> Fostering financial sector reform towards green infrastructure investment Strengthening financial sector’s familiarity with renewable energy and project finance 	<ul style="list-style-type: none"> Public loans to IPPs
Political Risk	NA	NA
Currency/Macroeconomic Risk	NA	<ul style="list-style-type: none"> Partial indexing of PPA tariff⁹

30. The impact of the public instruments on reducing financing cost for wind energy and solar PV in Kazakhstan is shown in Figure 6. Based on the modelling analysis, the selected package of derisking instruments is anticipated to reduce the average cost of equity by 2021 to 13.2%, and the cost of debt to 5.5%.

⁸ A “take-or-pay” clause is a clause found in a Power Purchase Agreement (PPA) that essentially allocates risk between parties in the scenario where transmission line failures or curtailment (required by the grid operator) result in the IPP being unable to deliver electricity generated by its renewable energy plant.

⁹ Partial indexing involves tariffs in a local-currency denominated PPA being partially indexed to foreign hard currencies, such as EUR or USD. In this way, IPPs are partially protected against currency fluctuations. If a PPA bidding process is used, IPPs can be asked to specify (and effectively bid on) the maximum degree of partial indexing they require, thereby minimising the cost to the public sector.

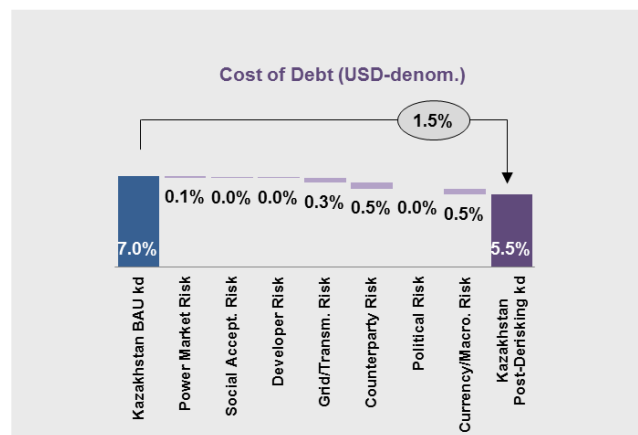
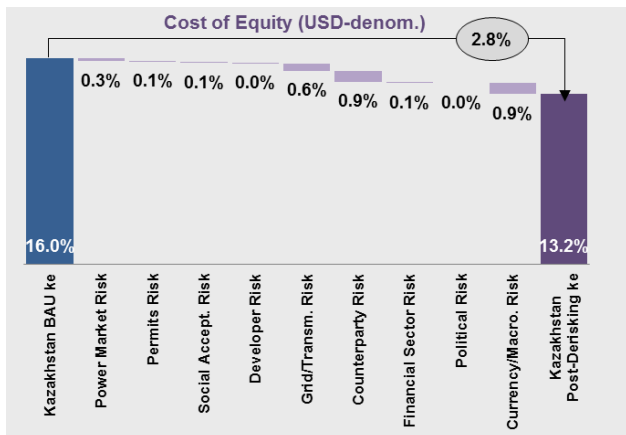


Figure 6: Impact of public derisking instruments on reducing financing costs for wind energy and solar PV in Kazakhstan post-derisking scenario (preliminary findings)

Source: interviews; DREI modelling

31. **Levelised costs (Stage 3):** The modelling outputs in terms of LCOEs for wind energy and solar PV relative to the baseline¹⁰ are shown in Figure 7 and Figure 8, respectively. According to the preliminary findings, wind energy is shown to be more expensive than the baseline technology cost today, where wind energy’s LCOE (business-as-usual scenario) is estimated at US\$ 9.2 cents per kWh. In the post-derisking scenario, the package of selected public instruments reduces the LCOE for wind energy to US\$7.1 cents per kWh, reducing the price premium from US\$ 3.5 cents to US\$ 1.4 cents per kWh. Solar PV is also shown to be more expensive than the baseline cost in both the business-as-usual and the post-derisking scenarios. In this case the public instrument package reduces the LCOE for solar PV from US\$16.9 cents per kWh (business-as-usual scenario) to US\$13.0 cents per kWh (post-derisking scenario), reducing the price premium from US\$11.2 cents per kWh to US\$7.3 cents per kWh.

¹⁰ The DREI modelling follows a combined margin approach to calculating the baseline LCOE. The combined margin includes 50% operating margin of existing coal plants and 50% build margin, consisting of new coal and CCGT plants. Fuel costs are unsubsidized and are calculated following the IEA’s opportunity cost approach. This approach does not use actual fuel prices in a given country, but rather considers the option value of that fuel – if the fuel was sold on the global market (see Schmidt et al, 2012)

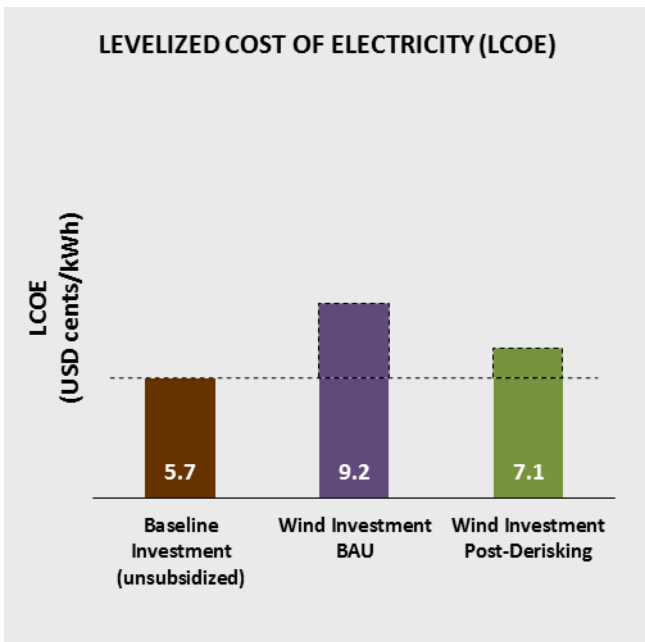


Figure 7: LCOEs for the baseline and wind energy investment in Kazakhstan (preliminary findings)
Source: DREI modelling

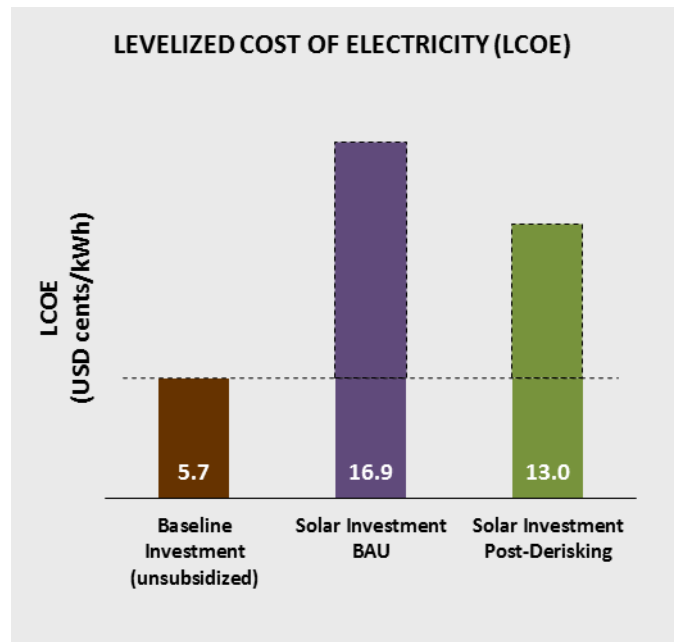


Figure 8: LCOEs for the baseline and solar PV investment in Kazakhstan (preliminary findings)
Source: DREI modelling

32. **Evaluation (Stage 4):** Figures 9 and 10 show each the performance metrics to promote investment for each of utility-scale wind and solar PV in Kazakhstan. As an illustration, the savings leverage ratio compares the cost of derisking instruments deployed to the economic savings that result from deploying these instruments.

- For wind energy, in the *business-as-usual* scenario, the modelling estimates that a price premium (incremental cost) totalling USD 1.4 billion will be required over the next 20 years to achieve the report’s 2021 (5 year) target of 1 GW. In the *post-derisking scenario*, the incremental cost falls to USD 546.8 million, saving the economy USD 804.7 million over the 20-year lifetime of the investments. Given that public derisking instruments costing USD 275.6 million are required to achieve this, this equates to a savings ratio of 2.9x, demonstrating that the benefits of lower price premiums outweigh the cost of derisking.
- For solar PV, the savings leverage ratio is 3.0x, once again indicating that derisking measures are efficient, and resulting in savings of USD 160 million.

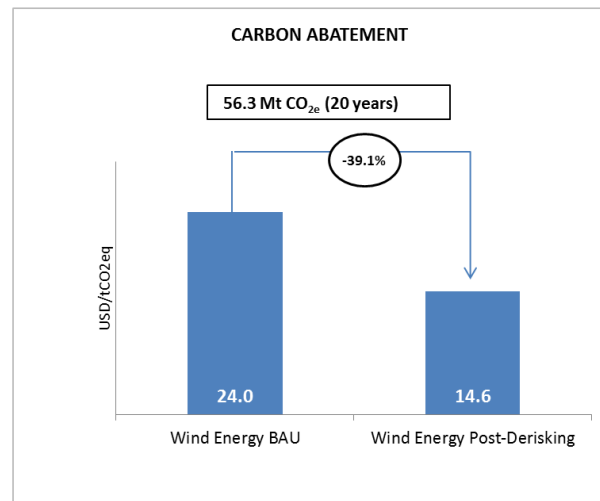
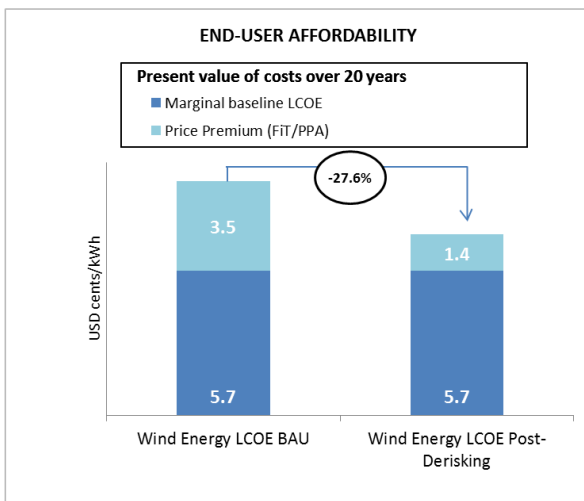
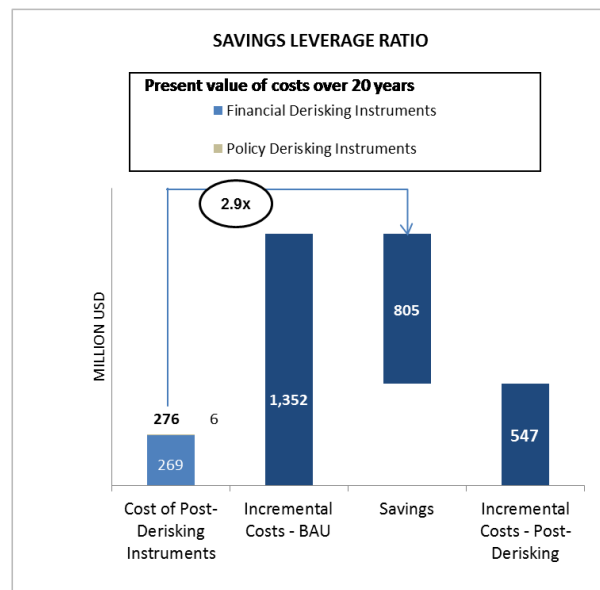
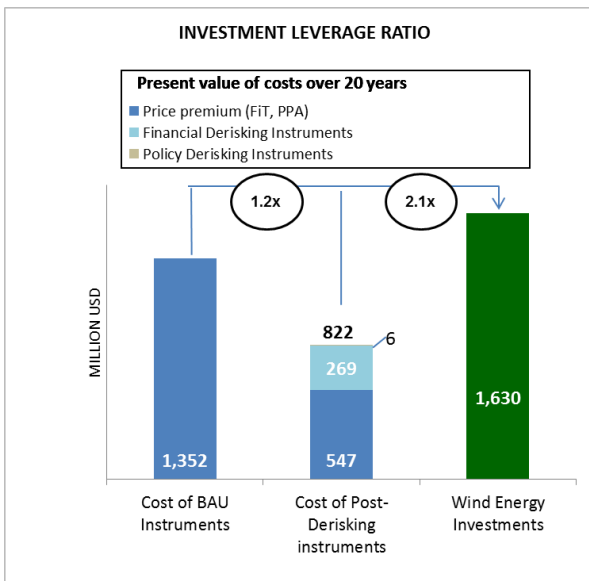


Figure 9: Performance metrics for the selected package of derisking instruments in promoting 1 GW of wind energy investment in Kazakhstan (preliminary findings)

Source: DREI modelling

*In the BAU scenario, the full 2021 investment target may not be met.

** The Carbon Abatement metric can be broken down into the costs of policy derisking instruments, financial derisking instruments and the price premium. While in the BAU scenario, the total of USD 24.0 per tCO_{2e} is due to the price premium, in the *post-derisking* scenario, this breakdown for the total of USD 14.6 per tCO_{2e} is USD 0.1, USD 4.8 and USD 9.7, respectively.

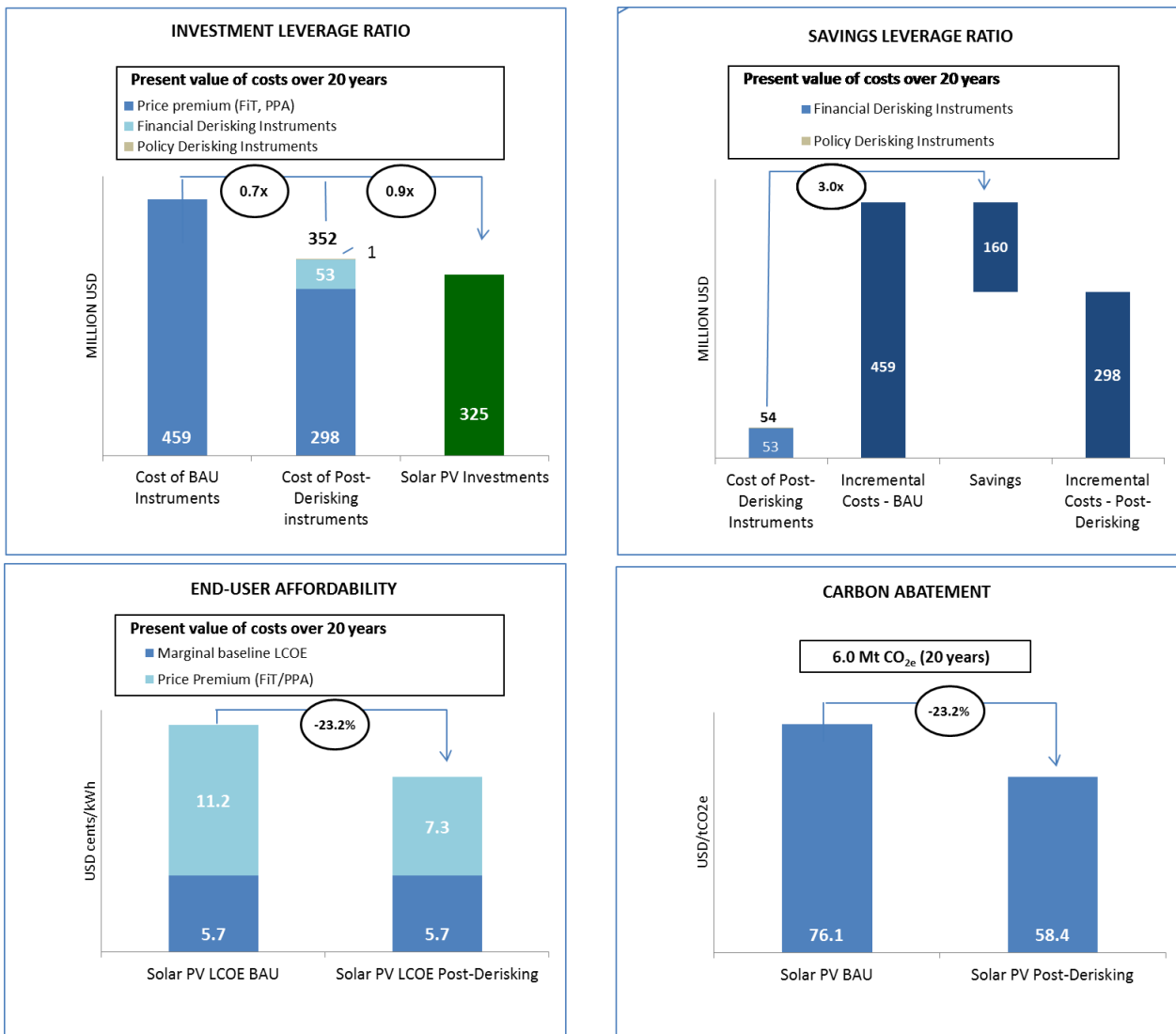


Figure 10: Performance metrics for the selected package of derisking instruments in promoting 250 MW of solar PV investment in Kazakhstan (preliminary findings)

Source: DREI modelling

* In the BAU scenario, the full 2021 investment target may not be met.

** The Carbon Abatement metric can be broken down into the costs of policy derisking instruments, financial derisking instruments and the price premium. While in the BAU scenario, the total of USD 76.1 per tCO_{2e} is due to the price premium, in the *post-derisking* scenario, this breakdown for the total of USD 58.4 per tCO_{2e} is USD 0.2, USD 8.8 and USD 49.5, respectively.

33. A key conclusion from the modelling is that investing in public derisking measures creates significant economic savings in meeting this analysis' 2021 (5 year) investment targets for Kazakhstan. The modelling clearly shows that investing in public derisking measures should in every case be more cost-effective for Kazakhstan, compared to an alternative of paying higher generation costs. **Overall, the results indicate that all derisking instruments that can be immediately implemented should, if possible, be prioritised before resorting to premium prices to compensate for any residual risks.**

34. The results presented above represent the key take-aways of a detailed DREI analysis on utility-scale wind and solar PV which will shortly be published in the form of a report by UNDP and the Government of Kazakhstan. The report will set out the full results of the analysis, as well as the methodology and underlying assumptions. This report will then act as an important baseline reference and foundation for project implementation, and for the ongoing use of the DREI methodology in the project.

Analysis for small-scale renewables

35. For small-scale renewable energy, a qualitative review of DREI methodology investment risks has been performed at project design. The market for small-scale renewables is both rural and urban, and involves both on-grid and off-grid application. In general, the market remains early-stage. To better understand the risks and barriers for small-scale renewable projects in Kazakhstan, ten small-scale investors and project developers were interviewed. Table 4 summarizes these risks and barriers. A full application of the DREI methodology for specific sub-sectors of small-scale renewables, with quantification of risk categories, will be applied during project implementation.

Table 4: Risk and barriers for on- and off-grid renewable energy applications

Risk Category	Risk Definition	Barriers	Insights from Kazakhstan
1. Energy market risk	Risk arising from limitations and uncertainty in the energy market (off- and on-grid) regarding market outlook, access, price and competition	<p><i>Market outlook:</i> Uncertainty regarding national/state-level targets for electrification and renewable energy</p> <p><i>Market access, competition and grid expansion:</i> Limitations, including due to government regulations, inability of small-scale renewable companies to access the electrification market; uncertainty regarding potential future competition in electrification</p> <p><i>Competing subsidies:</i> Competition from subsidised diesel and kerosene (mostly used for lighting); negative perceptions of tariffs due to subsidized grid-distributed electricity</p>	For small-scale renewables, issues include inadequate laws on net-metering or a FiT mechanism. Small-scale renewable energy applications face barriers stemming from market distortions, such as high fossil fuel subsidies.
2. Permits risk	Risk arising from the public sector's inability to efficiently and transparently administer renewable energy-related approval process	Uncertainty around approval processes; unclear net-metering laws	Approval of small-scale renewable energy projects is under authority of regional governments (as opposed to utility-scale projects, above 25 MW, where the rules have already been set up at the national level). Absence of clear rules and procedures for project approval results in uncertainties, and high transaction costs for potential developers.
3. Grid/transmission	Risks arising from limitations in grid management and transmission infrastructure in the country	Resistance from distribution companies to connect small scale renewables to the grid due to lack of experience and standards	There is very limited number of cases in the country for small-scale renewable energy supplier (e.g. households, building level PV) to be connected to the grid. There is lack of standards for integration and limited experience in grid management of distribution and transmission companies with intermittent sources (e.g. grid management and stability).
4. Social acceptance risk	Risks arising from lack of awareness and	Resistance by general public and local communities due to unfamiliarity, misinformation/ perceptions and lack of awareness for renewable energy; resistance	Potential beneficiaries/users of decentralised renewable energy (tenant, farmers, SMEs) lack awareness about technologies

Risk Category	Risk Definition	Barriers	Insights from Kazakhstan
	resistance to renewable energy in communities and among end-users	<p>from incumbent businesses (e.g., diesel based generation) disrupted by renewables</p> <p>Theft and vandalism of renewable energy equipment in local communities; differing norms of "ownership" within communities across cultures</p>	and their potential benefits. Renewables are perceived as more risky, expensive energy supply options in comparison with baseline/fossil fuel based energy sources.
5. Hardware risk	Risk arising from limitations in the quality and availability of hardware; issues arising from inefficiencies in the customs process and lack of standards in credit terms, leading to delays in delivery	<p><i>Hardware quality:</i> Lack of access to information on quality, reliability (performance) and cost of hardware; lack of clarity or uncertainty regarding government technical standards to ensure safety of hardware</p> <p><i>Availability of hardware:</i> Lack of a competitive market for buying hardware (from both international and domestic suppliers)</p> <p><i>Customs:</i> Cumbersome customs/clearing process for importing hardware, leading to delays in delivery</p> <p><i>Credit Terms:</i> Lack of uniform/conducive/standardized credit terms on purchase of small-scale renewable energy hardware, leading to working capital shortages for providers</p>	Quality and performance of solar PV hardware available to small-scale and residential actors are currently holding back the market. There is a need to improve the quality and have more technically advanced panels available, and also for guarantees for the performance of panels to be made available. Without these being addressed, the sector suffers from reputational issues and businesses providing small-scale RE services are reluctant to enter the sector as they are unable to provide reliable service.
6. Labour inputs risk	Risk arising from the lack of skilled and qualified individuals to be employed by the small-scale renewable energy developers	Lack of a competitive labor market of educated, skilled and qualified potential employees, leading to higher costs, hiring non-local staff and suboptimal performance	Small-scale renewable energy applications are labour intensive in terms of installation and on-going up keeper. For effective scale-up, there is a need to have skilled and qualified potential employees, with accompanying apprenticeships and university certification.
7. Developer risks	Risks arising from limitations in the developer's capability to efficiently and effectively design, market, install, operate, and maintain its products and	<p><i>Effective execution: Business Planning & Product Design</i> – Lack of information, capacity, experience, unforeseen events in executing its roles regarding business planning (lack of C-Suite talent) and product design (effectively sizing and evaluating market demand for its products)</p> <p><i>Effective execution: Customer Acquisition/Retention, System Installation, Operation, and Maintenance</i> - Developer's challenges (due to lack of information, capacity, experience, unforeseen events) in executing its roles regarding customer</p>	<p>Developer credit worthiness and cash flow strength: inability for developer to convey its credit worthiness to investors, inability for developers to secure financing from investors due to lack of credit worthiness, or insufficient cash flows to meet investors' return requirements.</p> <p>Effective execution challenges (capacity, experience, unforeseen events) faced by project developer in effectively executing its various roles such</p>

Risk Category	Risk Definition	Barriers	Insights from Kazakhstan
	services for its customers	<p>acquisition/retention, system installation, distribution, and servicing of its products.</p> <p><i>Credit worthiness and cash flow strength:</i> Inability of developer to secure financing from investors due to (i) lack of credit worthiness, (ii) insufficient cash flows for inventory and receivables management and to meet investors' return requirements, or (iii) limited understanding of requirements for aggregative approaches and the need for standardization and data transparency.</p>	as: design (resource and demand assessment), installation, operations, maintenance and monitoring.
8. Payment & credit risk	Risk arising from customers' willingness and ability, to pay for electricity	<p><i>Information on customer credit worthiness:</i> Lack of customer credit data with which to assess the ability of customers to pay for the down payment on small-scale renewable products, ongoing electricity bills and ancillary equipment (e.g., lights and appliances)</p> <p><i>Poor credit worthiness and non-payment:</i> Risk of delayed, reduced or non-payment by customers due to poor credit worthiness, lack of funds available, theft and social dynamics</p>	Kazakhstan has a fairly well developed consumer credit track record and local banks are experienced in providing small loans across most of the country. The risk may apply to a greater extent in remote rural off-grid and transient communities.
9. Financing risk	Risks arising from scarcity of domestic investor capital (debt and equity) for developers, and domestic investors' lack of familiarity with small-scale renewables and appropriate financing structures	<p><i>Scarcity of domestic investor capital:</i> debt and equity for developers to invest in equipment and access working capital</p> <p>Domestic investors' lack of familiarity with small-scale renewables and appropriate financing structures to such markets</p>	No experience with small-scale/decentralised renewables projects: lack of information, assessment skills and track record for renewable energy projects amongst domestic financial sector. No dedicated financing products for small-scale renewable energy with affordable rates.
10. Currency Risk* <i>*Note this risk category only applies if financing is in hard currency.</i>	Risks arising from currency mismatch between hard currency debt/equity and domestic currency revenues	Uncertainty due to volatile local currency; unfavourable currency exchange rate movements resulting in domestic currency revenues not being sufficient to cover debt/equity servicing.	For small-scale renewables financing will be in local currency in Kazakhstan.

Risk Category	Risk Definition	Barriers	Insights from Kazakhstan
11. Sovereign risk	Risk arising from a mix of cross-cutting political, economic, institutional and social characteristics in the country which are not specific to small-scale renewables	Limitations and uncertainty related to conflict, political instability, economic performance, weather events/natural disaster, legal governance, ease of doing business, crime and law enforcement, and infrastructure in the country	Most factors under this risk are insignificant in the Kazakh context. Two that are relevant relate to economic performance resulting in currency devaluation (covered under 10 above), and limited infrastructure in distant, remote areas.

III. STRATEGY

36. The objective of the project is to promote private-sector investment in renewable energy in Kazakhstan to achieve Kazakhstan's 2030 and 2050 targets for renewable energy. The project will target both large-scale and small-scale renewable energy. To achieve this objective, the project will adopt a comprehensive strategy to identify, assess and mitigate investment risks, thus creating attractive conditions for private sector investment and market growth.

37. The project is structured under three components:

Component 1 – Large-Scale Renewable Energy: Policy and Financial Derisking Measures

Component 2 – Renewable Energy for Life: Policy Derisking

Component 3 – Renewable Energy for Life: Financial Derisking and Incentives

with cross-cutting activities related to knowledge management, and monitoring and evaluation included within these components.

Component 1: Large-Scale Renewable Energy: Policy and Financial Derisking Measures

38. The first component of the project will support the implementation of government policies and programmes to address the identified barriers and risks to investment in large-scale renewable energy. This component will also provide technical assistance to support the design of policy and financial instruments to promote investment and reach the 2030 target. The component (and the outcomes associated with it) are guided by the DREI analysis and its findings as described in the previous section. The areas of interventions are selected to target the risk categories identified for Kazakhstan (Table 2). The DREI methodology will be used throughout the project implementation, as the basis for further analyses (for example tariff setting) and adaptive management.

39. Under this component technical assistance will be provided to the Ministry of Energy. The component will, as far as possible, work in close collaboration and coordination with other international organisations including IFC, EBRD, USAID, AsDB and the IDB. The focus of collaboration and coordination will be on ensuring the overall most efficient and cost-effective approaches to catalysing large-scale renewable energy investment via provision of a combination of financial and policy derisking instruments.

Outcome 1: Appropriate policies, programmes and regulations are in place to reduce investors' risks, scale-up investment and enable the achievement of 2030 RES target

40. The DREI Analysis provides the basis for financial and economic analyses of cost-effective and coordinated design of policy and financial derisking instruments for Kazakhstan to achieve its 2030 wind and solar PV targets. The main areas of support, reflecting findings from the DREI analysis, are expected to be:

- Power market risks
- Permitting risks
- Grid and transmission network risks
- Counterparty risks
- Currency risks.

41. Specifically, the work on primary and secondary legislation related to renewable energy – which will be fully coordinated with donor and IFI activities to ensure complementarity and synergies – is expected to include the measures described in Table 5.

Table 5: List of measures related to primary and secondary legislation for renewable energy

Measures	Description
Addressing power market risk	<ul style="list-style-type: none"> • Provide support to the development of procedures for renewable energy auctioning and tender preparation • Building on models developed by EBRD, implement further analysis of the impact of the FiT on conventional generators and final consumers • Implement analysis and develop recommendations related to the surcharge on conventional generators' regulated revenues • Implement regular analysis on tariff-setting for different large-scale renewable energy technologies, in order to ensure the feed in tariff is up to date and functioning optimally • Develop recommendations for improvements in mechanisms and procedures for feed-in tariffs and power purchase agreements • Develop further assessments of balancing costs for renewable energy
Addressing permitting risks	<ul style="list-style-type: none"> • Development of siting plans on the recommended allocation of RES facilities • Analyse and make recommendations on land allocation rules and procedures to address short-term / long-term needs (as reflected in the 1 July 2016 Land Code)
Addressing grid and transmission network risks	<ul style="list-style-type: none"> • Further development of a grid code for renewable energy technologies • Technical rules for renewables, including analyzing and providing argumentation related to the new obligation on solar PV operators to install and operate batteries at the request of the system operator • Provide support for grid management and grid planning • Development of the connection contract to regulate the relationships between renewable energy operators, network companies and KEGOC, including developing an approved template • Ongoing work to address the questions on the financing of network connections, including who pays for substation extensions and upgrades, and who owns the assets • Development of approaches and recommendations on the participation of conventional power producers in the renewable energy market (i.e. when acquiring renewable energy power plants) • Support and recommendations on integration of renewable energy in the electricity network
Addressing counterparty risks	<ul style="list-style-type: none"> • Work to address the long-term creditworthiness of the Settlement Centre • Develop recommendations on a guarantee scheme for PPAs • Support to the creation and operation of the Reserve Fund
Addressing currency risks	<ul style="list-style-type: none"> • Analysis of payment reflows and risk exposures under the FiT and auction models • Analysis and guidance on approaches to address currency risk through, for instance, partial indexation • Guidance on the requirement for financial products to address foreign currency risk for project developers

42. The approach to provide this support is to reinforce the Ministry of Energy to facilitate creation of favourable conditions for renewable energy investment, and assist with designing and implementing derisking policies. This support may take the form of strengthening the analytical understanding of the implications of policy options, and representing the Ministry in discussions with other government, civil society and private sector discussions. The Project will engage local and international experts to advise on a wide range of renewable energy issues with consideration of best international practices.

43. The work under this component will also benefit from knowledge management activities, including information exchange events, conferences, workshops and seminars focused on large-scale renewable energy issues.

Output 1.1 Technical, economic, financial, environmental and social analysis carried out to support the Ministry of Energy and other stakeholders in the design and implementation of appropriate policies, programmes and regulations, including development of briefings for decision-makers

44. The activities to achieve this output are described below and will be reviewed, in light of new developments and in coordination with other donors and IFIs, during the project's Inception Phase and regularly during the course of the project's implementation. The DREI Analysis will form the basis of financial and economic analyses for cost-effective and coordinated design of policy and financial derisking instruments for Kazakhstan to achieve its 2030 targets in wind energy and solar PV.

Measures addressing power market risk

Activity 1.1.1: Support the ministry of Energy, in coordination with other donors, to develop methods for renewable energy auctions, to ensure cost effective actions, and necessary parallel operation of the feed in tariff (for those with already approved PPAs).

Activity 1.1.2: Develop recommendations for improvements in the methodology for setting and reviewing the feed in tariff.

Measures addressing permitting risks

Activity 1.1.3: Develop analysis and recommendations on land allocation rules and procedures to address short-term / long-term needs (as reflected in the 1 July 2016 Land Code).

Measures addressing grid and transmission network

Activity 1.1.4: Improve the proposals for technical rules for renewables, including analyzing and providing argumentation related to the new obligation on solar PV operators to install and operate batteries at the request of the system operator.

Activity 1.1.5: Develop approaches and recommendations on the participation of conventional power producers in the renewable energy market (i.e. when acquiring renewable energy power plants).

Measures addressing counterparty risks

Activity 1.1.6: Carry out analytical and legal work to address the long-term creditworthiness of the Settlement Centre.

Activity 1.1.7: Develop recommendations on a guarantee scheme for PPAs.

Measures addressing currency risks

Activity 1.1.8: Implement analysis of payment reflows and risk exposures under the FiT and auction models.

Activity 1.1.9: Implement analysis and guidance on approaches to address currency risk through, for instance, partial indexation.

Output 1.2 Capacity building of key stakeholders through coaching and training seminars / study tours

Activity 1.2.1: Carry out training needs assessment, design a training programme, and provide training for local staff-members on large-scale renewable energy development issues.

Activity 1.2.2: Organise regular information exchange events, conferences, workshops and seminars on large-scale renewable energy issues.

Component 2: Renewable Energy for Life: Policy Derisking

45. This component will support the design and implementation of government policies and measures to address specific barriers and risks to investment in small-scale renewable energy for homeowners and businesses. This will address both on-grid and off-grid solutions.

46. Component 2 activities will be implemented through technical assistance provided to the Ministry of Energy and local authorities (municipalities).

47. Component 2 will be developed in an integrated manner with component 3, thereby addressing identified DREI market risks in the small-scale renewable energy sector. Targets, policies and regulations to be developed in component 2 will prioritise those that support the financial derisking and incentive strategies being developed under component 3, including reform of the subsidy mechanism, renewable heat and performance contracting in the public sector.

Outcome 2: Appropriate policies, programmes and capacities are in place to reduce risk and attract investment in small-scale (on-grid and off-grid) renewables

Output 2.1 Appropriate policies, programmes and regulations for on- and off-grid small-scale renewables designed and implemented

Activity 2.1.1: Design and implement appropriate policies, programmes and regulations. The approach used will follow the UNDP DREI framework, as adjusted for small-scale renewables – this will inform the selection and design of appropriate policy derisking tools.

Areas to be addressed include: adoption of national and regional targets for small-scale RE (addressing DREI power market risks); regulations for small RES (i.e. net-metering policy) and application of the Feed in Tariff or performance based grant for such projects (also addressing DREI power market and payment and credit risks); reform of existing subsidy systems to stimulate renewable markets better, without neglecting local content objectives (addressing DREI financial sector and other risks); policies, targets and regulations to promote RES-based heat generation and integration of RES in building design.

Activity 2.1.2: Develop and recommend improvements for small-scale on-grid RE approval, permits and grid connection (addressing DREI permits risks): streamlined and simplified approval procedures for permits, grid-connection procedures and contracts with grid operator.

Activity 2.1.3: Organise and implement training to build capacity of local officials and experts to develop policy interventions for small-scale renewable energy development.

Output 2.2 Functioning MRV for the small-scale renewables sector

Activity 2.2.1: Review the current practice of international MRV systems in small-scale renewable energy and requirements for improving existing MRV practices in Kazakhstan.

Activity 2.2.2: Propose appropriate financial and institutional arrangements for the MRV system for small-scale renewable sector in Kazakhstan.

Activity 2.2.3: Establish an MRV system of international standard for regular measurement, reporting, and verification of relevant indicators for the small-scale renewable sector.

Activity 2.2.4: Design and deliver training materials to support operation of the MRV system.

Output 2.3 Media campaigns and training for suppliers / developers to promote and market small-scale renewables in their target markets

48. To address the identified DREI social acceptance risks, the project will carry out awareness raising activities focused on building the profile of small-scale renewables and of reliable suppliers and designers.

Activity 2.3.1: Consult with stakeholders and assess the types of intervention required to achieve optimum awareness for on and off-grid small-scale developments.

Activity 2.3.2: Develop a media plan including the scope of the media campaign; interventions required; and the human, financial and technical resources needed to support implementation of the plan.

Activity 2.3.3: Plan and execute awareness raising interventions in on- and offline media as per developed media plan.

Activity 2.3.4: Facilitate information exchange via organisation of targeted training and workshops including inter alia for small-scale equipment suppliers.

Output 2.4 Functioning and enforced quality control system in place for small-scale technology

49. To address the identified DREI hardware risks (and indirectly the labour risks), the project will carry out awareness raising activities focused on building the profile of small-scale renewables and reliable suppliers and designers in the sector.

Activity 2.1.1: Hold consultations with producers, sellers, buyers, users and/or regulators of small-scale renewable energy equipment and facilitate a dialogue on technology standards.

Activity 2.4.2: Develop proposals for small-scale technology standards, in consultation with the identified stakeholders

Activity 2.4.3: Establish small-scale technology platform, which includes information on small-scale technologies and quality and performance standards. This platform will be an online web-based platform that allows purchasers to identify suppliers and equipment that meets minimum quality and performance standards, and provides information to purchasers to assist in their decision-making processes.

Activity 2.4.4: Develop appropriate institutional and organizational arrangements for monitoring and enforcing quality standards. The approach to be taken will be integrated with the financial incentives that are developed and implemented in component 3, so that, for instance, only approved products and suppliers are eligible to receive the incentives.

Activity 2.4.5: Organize and implement relevant training to develop skills for support of quality control system.

Component 3: Renewable Energy for Life: Financial Derisking and Incentives

50. This component will provide both technical assistance and direct financial support (through financial derisking instruments and direct financial incentives) to develop and test business models for implementation and financing for small-scale renewable energy, focusing on two sub-components: Renewable Energy for Urban Life (e.g. building-level renewable energy applications, principally for the tertiary sector) and Renewable Energy for Rural Life (use of renewable energy in rural areas and in agriculture).

51. Financial and business models will be identified based on economic analyses of the financial viability of small-scale renewable energy for different categories and profiles of buildings, houses and businesses and in partnership with private sector “champions” interested in experimenting with such business models and technologies. This work will incorporate and build on existing government policies and baseline funding schemes, and reflect the identified priority DREI risks, in particular the DREI Developer risks.

52. In urban areas, the project will focus on the development of commercial markets for solar hot water heating in the tertiary sector, in particular public buildings (nurseries, schools, clinics), and commercial buildings (hospitality sector, restaurants) – especially those that currently heat with electricity. These sectors are the closest in the Urban Renewable Energy sector to being financially viable under present conditions and it is a viable starting point for creating a functioning, self-sustaining commercial market. Related technologies such as heat pumps will also benefit from the growth of the solar hot water heating market. At present, the market barriers for other technologies such as PV (very high cost of generation compared to the grid) and other market segments such as multi-family apartments (highly complex decision-making and financing structures) are not yet viable commercially without very substantial incentives. This may change within the course of project implementation so will be kept under review.

53. Support will be provided to:

- Assess the market for Solar Water Heating in the tertiary sector to identify viable business models including value propositions, priority customer segments, market size, channels, cost structure and revenue streams, and specific market barriers. Lessons will be taken from the UNDP ‘*Global Solar Water Heating (GSWH) Market Transformation and Strengthening Initiative*’ project – covering 5 countries (Lebanon, Albania, India, Chile and Mexico) – that was conducted jointly with UNEP and recently closed.

- Prepare viable financial models to de-risk commercial activity, including determining the level and type of public incentives, financing structure, (re)-payment arrangements (leasing, PPAs).
- Pilot business models and implementation schemes (potentially including RESCOs, and niche markets such as Organic Urban Farming) including appropriate legal/contractual arrangements (self-ownership, third-party ownership, community-based models, particularly in public sector buildings).
- Provide training and build capacities of various project stakeholders to implement financing schemes and put in place O&M provisions.

54. In rural areas, the project will focus on the development of commercial markets for on-grid and off-grid small- (less than 5MW) and micro-scale (below 5kW) RES applications, targeting in particular farms and rural SMEs. Off-grid, rural solutions will be particularly applicable in under-served regions such as southern Kazakhstan. Technologies are likely to include solar PV (roof-top, water pumping, small PV arrays for backup power), solar water heating, small-scale wind systems, biogas, and hybrid systems. Where viable, the project will seek to develop and promote the latest business and finance models for small-scale RES developers (for example, third-party ownership models).

55. In rural areas the focus is expected to be on solar PV (and hybrid solar PV/wind). Support to design and implement financial and business models will be provided to interested private sector partners, for:

- Identification of suitable technological solutions based on specific circumstances and needs of beneficiaries;
- Preparation of financial and economic studies, including the level and form of public subsidies and support with securing debt and public financing;
- Technology implementation, including securing appropriate warranties and provision of training on O&M;
- Legal and institutional support.

Outcome 3: Sustainable business models and financial mechanisms to support implementation for investment in small-scale urban and rural RES solutions in place

56. The activities under Component 3 are guided by the DREI small-scale barrier and risk table.

Output 3.1 Financial and business models for small-scale renewables are developed and piloted

Activity 3.1.1: Review international practices on financial and business models for support of small-scale renewable energy projects. The project team will facilitate regular exchange of knowledge and progress in DREI implementation among “sister” projects in other countries, as well as systematic collection, analysis and presentation of DREI case studies, assessment tools and lessons learnt through the corporate platform established at <http://www.undp.org/drei>.

Activity 3.1.2: Analyse existing markets for small-scale renewables to assess opportunities and gaps for support of such projects. The analysis will follow the DREI small-scale methodology where possible, and will include technical assessments to identify niche market sectors where renewables may be viable (for example solar hot water heating for those currently heating with electricity) as described above.

Activity 3.1.3: Design appropriate business and financial models for small-scale renewable energy developments tailored for existing markets in Kazakhstan. Business models to be elaborated include energy performance contracting models (RESCO models), where these might work effectively such as in heating for clinics, hotels and restaurants.

Activity 3.1.4: Develop standard supporting documents for mainstreaming small-scale renewables developments. Depending on the business models that are most viable, as identified under Activity 3.1.3, standard supporting documents will be developed and will include standard contracts, design documents and permitting applications.

Output 3.2 Appropriate financial instruments created and piloted

Activity 3.2.1: Arrange and hold consultations with local financial institutions, banks, development finance institutions, institutional investors, and others to identify and refine plans to develop financial instruments. The analysis will follow the DREI small-scale framework to inform the selection of appropriate financial instruments. This activity includes in-depth discussions with DAMU, the JSC “Fund for Financial Support of Agriculture” and JSC “Agrarian Credit Corporation” to tailor the support provided by these organisations to stimulate small-scale renewables in urban and rural areas.

This activity will be supported by a consultant with expertise in financial instruments (see Annex E for “Terms of Reference for a Consultant to Develop a Detailed Report on Financial Instruments”). The output of that consultancy will be a Report on Financial Instrument(s), which will include a detailed plan for operationalizing the mechanism, including its financial and accounting treatment in UNDP. This report will be submitted for UNDP-GEF review and approval.

Various options are to be considered for the financial instrument, all of which must be implementable within UNDP’s rules and procedures. UNDP has experience in Kazakhstan with negotiating and implementing a concessional finance mechanism within the Fund for Financial Support of Agriculture (FFSA). In that case UNDP used the institutional arrangements, disbursement and collection system that existed at FFSA for a biodiversity-related micro-credit program within the UNDP-GEF biodiversity conservation project.

Activity 3.2.2: Building on the policy-focused work of Output 2.1, support the Ministry of Energy and the Ministry of Agriculture in the creation of the enabling framework to provide market-enabling incentives for small-scale developers. The project team will develop and propose financial instruments for approval by the Government.

Activity 3.2.3: Develop eligibility criteria associated with the financial instrument, including the project type, to consider the different economics of the projects and their relevant technical parameters, and environmental and social safeguarding. The grant will be designed to take into account the following important factors and considerations:

- Up to USD 1.9 million of project funding will be available to address incremental costs of the small-scale renewable energy projects to facilitate investment by local financial institutions and, where possible, other donors.
- The multitude of small-scale renewable energy markets – there is a variety of potential urban and rural projects that could be financed. This variety makes it difficult to establish uniform technical parameters of the projects on the basis of which to calculate and justify the amount of grants to be provided. Hence, it makes good sense to evaluate these projects not in terms of their design parameters but, rather, in terms of estimated emission reduction, and added socio-economic and gender based differences.
- The need to define a simple to understand and easy to implement mechanism that does not distort the market. The project will seek to address the incremental costs of up to a maximum of 20% of small-scale project costs.

Activity 3.2.4: Facilitate adoption of financial measures for small-scale renewable energy developments.

Activity 3.2.5: Monitor the implementation of the financial mechanism under output 3.4, including environmental performance and compliance with agreed environmental and social safeguards. Data collected through this activity will provide inputs into the MRV system created under Output 2.2, as well as be used to track and adjust the performance of the financial mechanism during the course of the project and for the future. Based on the

instrument's uptake and assessment of its potential impact throughout deployment, adjustments will be made as necessary and appropriate.

Under this activity monitoring data will be used to prepare a short case study on small-scale DREI implementation and lessons learnt for communication through the UNDP DREI corporate platform, and for sharing with related regional programmes where relevant.

Output 3.3 Capacity of local financial institutions to support small-scale renewables enhanced

Activity 3.3.1: Carry out a training needs assessment for local banks and other financial institutions to determine priorities for training.

Activity 3.3.2. Develop and deliver training for 3 local financial institutions. Training will include technical and financial aspects of small-scale renewables, and environmental and social safeguards.

Output 3.4 Investments mobilised for small-scale renewable energy projects

57. This project will assist the Ministry of Energy and Ministry of Agriculture, and financial partners with practical strategies to address first-mover risks small-scale renewable energy projects. In addition, some pilot projects may be developed in niche markets such as organic urban farming to demonstrate both technical and financial potential.

58. The activities of outputs 3.1, 3.2 and 3.3 provide the technical assistance for the design and monitoring of the investments that are supported under output 3.4. Based on the financial instrument(s) and related parameters that will be decided upon within output 3.2, will be provided small-scale renewable energy projects to facilitate investment by local financial institutions and, where possible, other donors.

59. The implementation of the investment part of component 3, output 3.4, will be through established relationships with the financial sector to provide the financial products and services identified in the technical assistance part of the component (output 3.1). This will take place through local entrepreneurial funds such as the "DAMU" Entrepreneurship Development Fund, the JSC "Fund for Financial Support of Agriculture" or JSC "Agrarian Credit Corporation" which is the financial operator for implementation of state programmes for agricultural support. The DAMU fund implements and monitors financial support (subsidies for interest rates on loans to businesses, and guarantees to banks on loans to entrepreneurs) as part of the "Business Road Map 2020" Unified business support and development programme, and has 18 Entrepreneurs Service Centres throughout the country and 14 mobile Business Support Centres.

60. A business-friendly approach will be taken for the deployment of project-funded and government incentives for small-scale renewable energy, and supporting other financial mechanisms such as the EIB Green Economy credit lines that were recently agreed. This approach will build up experience of the financial sector – collaboration with the local banking sector will be established to facilitate and support the design of financing products for these business models and promote a mass market for renewable energy products and services (i.e. leasing scheme for solar PV; loans for RESCOs). Using project-supported examples as "business case studies", the project will raise awareness and educate the wider banking sector about renewable energy and the risk/return profile, help design due diligence tools and provide training to bank staff on their application. Recommendations will also be provided to the Government on the design of ongoing public loans and guarantees schemes to complement commercial lending.

61. The targeted number of investments and beneficiaries are as follows:

- total 9500 small-scale projects addressing various technologies and sectors and benefiting from installation of hybrid (wind and solar PV) developments
- at least 28,500 people as direct project beneficiaries.

Activity 3.4.1: Financial engagement with small-scale renewable energy projects according to the criteria of the established financial mechanism (under output 3.2).

IV. RESULTS AND PARTNERSHIPS

i. Expected Results

62. **Expected impact on market transformation:** The goal of this project is to achieve energy market transformation in Kazakhstan by significantly scaling-up the deployment of renewable energy in electricity generation from 0.77% share of renewable energy in 2016¹¹ towards a 10% share by 2030, which is more than a 10-fold increase in renewable energy-based energy generation to be facilitated by the project. To do so, the project will adopt a comprehensive strategy to identify, assess and mitigate renewable energy investment risks thus creating attractive conditions for private sector investment and renewable energy market growth.
63. In large-scale renewable energy, the project will promote Kazakhstan as a prime destination for international investment. Technologies will include wind energy, solar PV and biogas. Project activities will build on the existing legislative framework, with the goal of moving to large volumes of private sector investment.
64. In small-scale renewable energy, the project will promote investment in two new renewable energy markets: “RES for urban life”, on-grid small-scale renewable energy applications, targeting urban households and businesses; and “RES for rural life”, both on-grid and off-grid small-scale renewable energy applications, targeting farms and rural SMEs. Off-grid, rural solutions will be particularly applicable in under-served regions such as southern Kazakhstan. Technologies may include solar PV (roof-top), solar water heating, small-scale wind and biogas. The project will promote the latest business and finance models for small-scale renewable energy developers (for example, third-party ownership models).
65. These two parts of the project - large-scale and “RES for life” - will complement each other, creating synergies, and leading to a virtuous cycle and critical mass of renewable energy investment, experience and technical skills in Kazakhstan.

ii. Partnerships and coordination

66. The project will closely coordinate with other initiatives in Kazakhstan on renewable energy, in particular initiatives by the IFC, EBRD, IDB, ADB, EIB and other IFIs, and USAID. Close coordination will be important to the implementation of this project as many initiatives related to renewable energy are in the planning or early stages, and it is necessary to ensure that overlap is avoided and effective communication is established early on. Key stakeholders will be contacted again during the inception phase, when their explicit roles and the project’s coordination mechanisms will be finalized and communicated.

Relevant initiatives

67. The EBRD intends to assist the Government of Kazakhstan with implementing the Green Economy Strategy through projects in energy, renewables, agriculture, water, waste management, transport and other sectors. The EBRD is supporting renewable energy in terms of policy dialogue and project financing. The EBRD’s Small Business Support programme has provided consulting support to over a thousand private enterprises and, with donor funds from the Kazakh government, is now present in 7 regions of Kazakhstan. The EBRD is working on expanding its program of SME financing through local partner banks. In December 2016, the EBRD approved a financing framework of up to €200 million to finance renewable energy projects with a total generating capacity of 300 MW within the next five years in Kazakhstan. The projects are planned to cover wind and solar developments, small hydro plants and biogas. The amount of €160 million will be allocated for construction of generating capacity; and

¹¹ <http://energo.gov.kz/index.php?id>

€40 million will be spent on electricity grid modernisation to integrate renewable projects into the national transmission system. This financing framework is not yet operational.

68. USAID Kazakhstan Climate Change Mitigation Program (KCCMP) aims at helping Kazakhstan to achieve long-term sustained reductions in GHG emissions intensity. The KCCMP supports the Kazakh government and business community in implementing policies to reduce GHGs at the national and corporate levels. The Program's objectives are to:

- Enhance the government's capacity to administer and enforce policies and measures to reduce GHG emissions through the development of procedures and tools that help implement the national Greenhouse Gas Emissions Trading System and the Law on Energy Savings, and to facilitate dialogue between regulators and regulated entities.
- Build the business community's capacity to reduce GHG emissions by improving corporate-level GHG and energy data measurement, reporting and verification, enhancing corporate capacity to assess, develop and implement GHG and energy saving measures, and strengthening the capacity of the audit and verifier community.
- Strengthen professional education programs in the energy efficiency and climate change areas through training, support for professional accreditation, and developing training centers of excellence.

69. In the renewable energy sector, USAID is currently developing a programme to support policy and legislation development for utility-scale renewables. The plan is to support work on load balancing and demand forecasting for KEGOC, and the development of an auction mechanism. The new programme is likely to start in September 2017. The project will liaise with USAID's programme to ensure complementarity and information sharing.

70. Additionally, USAID Kazakhstan Small Business Development Project aims to: a) increase the Government of Kazakhstan's knowledge of international best practices and lessons learned in implementing SME support programs; b) transfer capacity to the Government of Kazakhstan and indigenous institutions, both public and private sector, to manage and evaluate entrepreneurship development programs; and c) promote a sound development of a network of small business service providers to foster growth of SMEs.

71. IFC's Clean Energy Infrastructure Program in Central Asia and South Caucasus works in the following areas:

- Governments: Support on regulatory reforms needed to develop bankable projects in renewable energy; district heating; power plant rehabilitation and T&D. Work focuses on issues as close to project as possible: permitting, licensing, PPAs, structuring private participation through PPP, etc.
- Distribution Utilities: Support with system assessment to identify measures to reduce technical and commercial energy losses, and develop a program to prioritize capital investment.
- IPPs: help to better structure projects to obtain financing.

IFC, in close collaboration with the EBRD, has been providing ad-hoc assistance to the Ministry of Energy to improve the support framework for renewable energy, in particular focusing on issues of projects' bankability: refinements to the renewable energy regulations; establishment of a clearing house for renewable energy purchase/sale; resolving grid integration issues for renewable energy projects; and identifying training for the System Operator KEGOC.

72. The ADB has recently (November 2016) engaged in technical assistance in the utility-scale renewable energy sector, and has engaged consultants to assess technical options for auctioning and/or tendering of renewable capacity.

73. Other key partners and their relevance for this project are listed in Annex N. Stakeholder Analysis.

iii. Stakeholder engagement

74. At the national level, the project management team will build on the stakeholder consultation process that includes the inception workshop and other bi-lateral meetings. A broader consultation with a range of stakeholders will be held under the leadership of the Ministry of Energy to design policy and financing derisking instruments for large and small-scale renewable energy developments. The consultation will be arranged via the Working groups set up under the Project Management Unit (Figure 11).
75. At the local level, stakeholders will be engaged through the UNDP's standard stakeholder engagement processes. The project management team and Ministry of Energy will continue to work closely with key project stakeholders such as project sponsors, co-financing institutions, community-based organizations and relevant NGOs.
76. The following civil society organisations will be closely involved in project implementation:
- Association of AAO (Building-level Associations of Apartment Owners and Tenants) will be involved in design of business and financial models for pilot projects under "RES for Urban Life" sub-component;
 - Association of Farmers and Farming Cooperatives will be involved in design of business and financial models for pilot projects under "RES for Rural Life" sub-component;
 - RES Association is a non-profit organization amalgamating companies interested in the development of renewable energy in Kazakhstan. The company seeks to create comfortable conditions for development of green energy in Kazakhstan. RES Association will be involved in the activities related to large-scale developments under Component 1.
77. The project will directly support indigenous communities of Kazakhs shepherds, living traditional nomadic or semi-nomadic lifestyles and therefore not being able to use and benefit from a centralized grid-connected energy supply system. The project will directly benefit "off-grid" indigenous communities by facilitating their access to sustainable and renewable energy-based energy sources.

iv. Mainstreaming gender

78. The population of Kazakhstan in 2004 was 14.95 million of which 7.75 million (51.9%) were women (UNDP 2004). Over 50% of the population lives in rural areas and small towns that once supported single industries. In these communities, people with higher education have difficulty finding jobs, and a high proportion of women are forced into self-employment, which yields a low return on their labor. Many men are forced to migrate to urban areas seeking employment, leaving women alone to cope with family survival. Housing poverty rates in rural areas are as high as 60%, compared with 24% in urban areas, a situation that especially affects women's capacity to care for children and most family needs. Poverty levels are higher in rural areas — 22% compared to 10% in larger urban areas (ADB, 2013).
79. Women, therefore, face greater economic insecurity and are more vulnerable to living in poverty than men. Women's average nominal wages across all sectors of the economy are 61.7% of men's wages; and, despite higher educational achievements, women made up 57.3% of the unemployed in 2003 (ADB, 2013).
80. The government acknowledges that gender stereotypes trap women in low-paying jobs and that employers are reluctant to hire women because they carry the sole responsibility for child care. The government notes that women's unemployment is at critical levels in rural areas and small towns, and that targeted programs are required. The so-called "reverse gender gap" in education is also noted, but women are unable to convert their higher educational attainments into well-paying jobs. Poor maternal health is also identified as contributing to poverty.
81. In Central Asia (ADB, 2013), frequently power supplies cannot meet the needs of industry, social service provision, and households. Women perform most household chores (e.g. cooking, cleaning, laundry),

and are particularly burdened by power interruptions and the inability to use labor-saving appliances. Currently, energy investments are mainly focused on physical and infrastructure improvements rather than assistance to households to enable them to transition to modern and more efficient forms of energy. Women's engagement in microenterprise and home-based work is seen as an important means of expanding women's economic opportunities, but many women's informal sector activities are energy-intensive and therefore affected by energy availability and price.

82. The "RES for Life" components of the project will allow women in rural and urban areas to benefit greatly from improved energy services in the form of heat and power generated from renewable energy sources. These improvements could ease women's workloads, reduce the time spent on household tasks such as cooking and cleaning, and could provide improved comfort and reduced vulnerability during the heating season.
83. Gender issues are mainstreamed in the design of components 2 and 3 of the project as follows:
 - Component 2 "Renewable Energy for Life: Policy Derisking": at least 50% of beneficiaries for training and capacity building related to RES are women and/or women-headed organizations (i.e. Associations of Apartment Owners, SMEs, farming communities);
 - Component 3 "Renewable Energy for Life: Financial Derisking and Financial Incentives" at least 50% of beneficiaries for project-supported "Renewable Energy for Life" applications in cities and rural areas will be women.
84. The project also addresses gender aspects in the following ways throughout the life cycle of the project:
 - The project applies a gender marker as per UNDP guidance;
 - The project incorporates gender issues in the project results framework, including gender-sensitive actions, indicators, targets, and/or budget;
 - The project will monitor the share of women and men as direct beneficiaries;
 - An analysis of women's inclusion in project activities will be included in both the mid-term evaluation and the terminal evaluation of the project and will be explicitly stated in the terms of reference for those evaluations.
85. The 'Gender mainstreaming and action plan' is provided in Annex Q.

v. ***South-South and Triangular Cooperation (SSTrC)***

86. The project will promote joint learning and the exchange of know-how, build bridges between stakeholders and help create the setting for a partnership between regional stakeholders. The project is one among several UNDP-implemented GEF-financed projects that are being designed and implemented based on UNDP's DREI framework and methodology. UNDP, under output 3.1, will facilitate regular exchange of knowledge and progress in small-scale DREI implementation among "sister" projects, as well as systematic collection, analysis and presentation of a DREI case study and lessons learnt, as part of activity 3.2.5, through the corporate platform established at <http://www.undp.org/drei>. Other related approved projects with which the project will cooperate are:
 - UNDP-GEF "NAMA Support for the Tunisia Solar Plan";
 - UNDP-GEF "Promoting Low Carbon Energy Solutions in Nigeria Energy/Power Supply".

V. FEASIBILITY

i. Cost efficiency and effectiveness

87. Cost efficiency and effectiveness have been built into the project strategy from the beginning. The strategy is based on the UNDP DREI methodology, developed by UNDP to support policy decision making by quantitatively comparing the cost-effectiveness of various public instrument portfolios aimed at derisking renewable energy investments. This framework, as set out earlier, consists of 4 stages that cover analysis of the risk environment, public instrument selection, levelised costs and evaluation. The focus of the method is on quantifying how instruments can reduce financing costs. The framework facilitates a structured, transparent process whereby key inputs and assumptions are made explicit.
88. Cost savings for Kazakhstan due to implementing the package of instruments has been quantified, and the results show that investing in derisking measures to target these investment risks is a cost-effective approach to achieving the investment objectives of the Kazakhstan Green Economy: derisking measures reduce generation cost of wind and solar PV substantially. These lower generation costs have important implications for affordability for the people of Kazakhstan. The modelling also demonstrates that investing in derisking measures is good value for money when measured against paying a premium price for wind energy and solar PV. Details of the savings are given in paragraphs 25-28.
89. The framework has been piloted in Tunisia, Nigeria, Lebanon and Belarus, and the approaches proposed in Kazakhstan build on these pilots and best practice throughout the region and globally.
90. The project is highly cost effective from a GHG perspective. The cost per tonne of direct GHG reduction to the GEF based solely on direct and consequential emissions from the small-scale project components is shown in Table 6 below. A similar marginal cost of reduction can be expected from the UNDP grant resources.

Table 6: Summary of the project's cost efficiency and effectiveness

GEF project grant	\$4,510,000
Direct lifetime tonnes of CO _{2eq} reduced	460,000
Cost per tonne of CO _{2eq} reduction to the GEF – direct lifetime emissions	\$9.80
Consequential emissions estimate (tonnes of CO _{2eq})	1,800,000 (bottom up) to 8,000,000 (top down)
Cost per tonne of CO _{2eq} reduction to the GEF – direct and consequential emissions	Between \$2.00 and \$0.53

91. The project strategy is highly innovative for Kazakhstan. For large-scale renewables, the proposed policy and financial derisking activities, have a compelling analytical basis – the DREI framework – that have not existed to date. This framework provides strong indications to the Government of how investment in derisking will lead to a substantially reduced cost, and substantial savings for the economy.
92. The project's approach involves a mix of business models which can be replicated both within Kazakhstan and elsewhere. The combination of technical assistance and concessional finance is expected to have a significant market impact in a new market (small-scale renewables).

ii. Risk Management

93. As per standard UNDP requirements, the Project Manager will monitor risks quarterly and report on the status of risks to the UNDP Country Office. The UNDP Country Office will record progress in the UNDP ATLAS risk log. Risks will be reported as critical when the impact and probability are high (i.e. corresponding to when impact is rated as 5, and when impact is rated as 4 and probability is rated at 3 or higher). Management responses to critical risks will also be reported to the GEF in the annual PIR.

Table 7: Project risks

Description	Type	Impact & Probability	Mitigation Measures	Owner
Loss of political support	Political	Medium	Project design is rooted and based on the national commitments and targets stated and adopted at the highest possible level, i.e. by the President, the Parliament and the Government of Kazakhstan. Any proposed revisions in the policies, as well as new ones to be proposed by the project will also have to secure the highest level of approval, i.e. by the Parliament (revision in the Law) or by the Government (e.g. changes in the feed-in tariffs). Project implementation will be based in the Ministry of Energy, thus giving the best chance of ensuring ownership and buy-in.	Project team
Ongoing low international oil prices	Economic	High	Unless appropriate policies and regulations, supported by financial derisking mechanisms and incentives are introduced and enforced, RE will not be able to compete with fossil fuel based power generation in Kazakhstan. Component 1 for large-scale renewables and component 2 for small-scale renewables therefore aims precisely at achieving these goals and leveling playing field for RE. Tariffs will considered closely during project implementation, building on the analysis and attention it is given in the DREI report.	Project team
Private investors do not find RES investments sufficiently attractive	Market	Medium	The project adopts private investors' perspective to the analysis of risk, underlying barriers and the design of derisking strategy. A detailed quantitative analysis of investment has been conducted based on DREI framework and methodology and proposed set of policy and financial derisking tools are proposed in line with investors outlook. Through policy and financial derisking the project will ensure that investments become more attractive.	Project team
Domestic supply chain and capacities for RES in Kazakhstan are very limited – this may cause inadequate implementation of RES projects leading to sub-optimal performance, mal-functioning, etc.	Technology	Medium	First, the project will involve top-level international technical specialists with experience of implementing RES projects in developing countries to provide quality assurance throughout all stages of pilot RES project design and implementation. Second, a significant share of Component 2 will be devoted to building domestic capacity for small-scale RES, through provision of vocational training and other type of learning and educational activities. Finally, domestic quality certification scheme for certain type of RES (e.g. solar PV) will be proposed and implemented to ensure minimum quality standards for RES projects.	Project team

Description	Type	Impact & Probability	Mitigation Measures	Owner
Co-financing for pilot projects doesn't materialize due to lack of private sector interest and/or government commitment	Financial	Low	Co-financing for pilot RES for life projects will be provided from the financial institutions eager to support this technology and sectors with signed letters of financing, with continued support from the Ministry of Energy.	Project team
Local financial institutions fail to launch financial products to support small-scale RED developments	Financial	Medium	The project will offer capacity building and training for the local financial institutions. Furthermore, the confidence of the financial institutions will be increased via demonstrations activities, i.e. pilot small-scale RES projects will be supported. Also, created favorable policy environment under Component 2 for small-scale renewables will enable development of financial products.	Project team
Climate change poses two categories of risks for the deployment of RES in Kazakhstan. First, intensified frequency and scale of natural disasters pose risks to any infrastructure, including to RES projects. Second, availability of some RE resources might be affected as a result of climate change (e.g. hydro)	Climate change	Medium	Resource risk will be mitigated through diversification of targeted RES, solar, wind, biogas, etc. In fact, solar and wind resources, where the largest potential exist in Kazakhstan, are not expected to be negatively affected by the changing climate. Regarding infrastructure risks caused by climate-induced events, for each pilot investment climate risk assessment will be conducted and mitigation strategy proposed as part of pilot project design.	Project team
Small-scale urban and rural RES developers do not use developed financial products	Social	Medium	The risk is mitigated through a country-wide awareness campaign and adequate design of financial products tailored to the needs and abilities of small-scale developers.	Project team
Developed business and financial models for small-scale RES are not replicated throughout the Kazakhstan	Market	Medium	The mitigation measures include increasing awareness (component 2), increasing access to small-scale finance (component 3), ensuring continued governmental support and commitment for small-scale (component 2) and close monitoring of lessons learned.	Project team

iii. Social and environmental safeguards

94. The project will eliminate several barriers to create an enabling environment for investments in small and large-scale renewable energy developments. The interventions from the technical assistance of the GEF are mainly institutional building and capacity building. The project will also develop business and financial models to support small-scale developments, which may cause impacts such as safety risks to the community from installation and dismantling, pollution and waste related to decommissioning of small-scale installations. In addition, the project will incentivise investments in small-scale renewables via financial intermediaries.

95. The overall outcome of the project will be an increased installed capacity of wind and solar power (MW) and lifetime renewable energy production (MWh) with associated reductions in GHG emissions and wider opportunities for gender mainstreaming in capacity building, financing and employment.
96. The project has completed the UNDP social and environmental screening procedure (see SESP attached as Annex F) to ensure this project complies with UNDP's Social and Environmental Standards. The overall social and environmental risk category for this project is: moderate. Given the type and scale of the interventions to be undertaken by the project, no EIA is required by the Government. Note that investments resulting from the barrier removal activities of this project will themselves be subject to ESIA requirements according to the rules of the government of Kazakhstan and, in some cases, international lenders (such as the EBRD, IFC and EIB). The environmental categorization of the project reflects the described funded project activities, not the wider market (outside the scope of the ESIA).
97. The project has been assigned a 'moderate' category in UNDP's Social and Environmental Screening template. However, the SESP recognises that categorisation of projects is an iterative process; should stakeholders raise concerns about the project's social and environmental aspects during implementation, the 'moderate risk' designation will be carefully reviewed. Please refer to Annex G for further information on the Environmental and Social Management Plan (ESMP) and its elaboration.
98. During implementation, a UNDP risk log will be regularly updated in intervals of no less than every six months in which critical risks to the project have been identified. Consistent involvement of a diverse set of partners – including governments, financial institutions, private sector, community organizations and NGOs – will further reduce these risks. Environmental and social grievances will be reported to the GEF in the annual PIR.

iv. Sustainability and Scaling Up

99. **Sustainability:** the project originates from and is driven by the Government of Kazakhstan's ambition to establish and achieve long-term renewable energy and climate change mitigation targets. It emphasizes on the private sector as the driving force for achieving the targets and transforming the market for renewable energy. By adopting a strategy that focuses foremost on reducing investment risks, the project is designed to make a long-lasting impact. Sustainability of the project's outcomes will be based on the provisions embedded in project design:
 - RES-supportive policies will form an integral part of the broader Green Economy legislative package which spells out a set of measures to ensure Kazakhstan's transition to more resource-efficient and green economic development pathway. The Green Economy agenda and process is under direct auspices and leadership of the President of Kazakhstan.
 - The project will support selected national agencies in full compliance with their existing mandate and power of authority thus making sure that lasting institutional and human capacities are created for implementation of project-supported policy changes.
 - Sustainability and lasting impact of financial derisking instruments will hinge upon their ability to lower the cost of financing for renewable energy projects. Financial derisking instruments will be designed in such a way as to achieve a sector-wide impact and low renewable energy financing costs for all perspective renewable energy projects and therefore eliminate, or at least significantly reduce the need for, additional financial derisking after project completion.
100. **Potential for scaling-up:** Promoting renewable energy in Kazakhstan – a country with huge yet unexploited potential for RES, as well as solid economic base for investment and economic growth – has vast potential. Apart from obvious opportunities for large utility-scale renewable energy projects, there are many smaller niche markets for renewable energy applications in Kazakhstan, which are yet unknown to potential investors, developers and the public. The project will look specifically at unlocking such new market opportunities under "RES for Urban Life" and "RES for Rural Life" segments; each with vast potential for scaling-up (bearing in mind projected 4.4% annual growth in electricity demand, coming mainly from residential sector).

101. In addition, about 255 settlements and 9000 farms in Kazakhstan are not connected to the national grid. There is additional potential for scaling-up in urban areas, including street lighting, rooftop PV and solar water heaters. Potential exists for scaling-up and replication of the project's activities in other Central Asian countries, which have similar energy markets and barriers to investment in renewable energy.
102. The project's design addresses scaling-up through the establishment of MRV for small-scale renewables, which will further expansion of the market for small-scale installations; supporting the creation of an enabling policy framework; and, the establishment of business models and financial mechanisms for the provision of financial incentives to small-scale developers. Additionally, the project management team will adhere to 'flexible programming' to ensure that issues related to project design, planning and implementation are immediately dealt in the most appropriate manner, thereby increasing the sustainability and potential for replication and scaling-up.

VI. PROJECT RESULTS FRAMEWORK

This project will contribute to the following Sustainable Development Goals:

- 7. Ensure access to affordable, reliable, sustainable and modern energy for all
- 8. Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all
- 12. Ensure sustainable consumption and production patterns
- 13. Take urgent action to combat climate change and its impacts

This project will contribute to the following country outcome included in the UNDAF/Country Programme Document:

Environmental Sustainability. By 2015, communities, national and local authorities use more effective mechanisms and partnerships that promote environmental sustainability and enable them to prepare, respond and recover from natural and man-made disasters.

This project will be linked to the following output of the UNDP Strategic Plan:

Output 1.4: Scaled up action on climate change adaptation and mitigation cross sectors which is funded and implemented.

Objective / Outcome	Objective and Outcome Indicators	Baseline	Mid-term Target	End of Project Target	Assumptions
Project Objective: Promote private-sector investment in renewable energy in Kazakhstan in order to achieve Kazakhstan's 2030 target for renewable energy	Objective indicator 1: Total Lifetime Direct and Consequential GHG Emissions Avoided (Tons CO _{2eq}) (GEF indicator 1)	0	48,000 tonnes CO _{2eq} direct emissions	460,000 tonnes CO _{2eq} direct emissions plus between 1.8 and 8.0 million tonnes CO _{2eq} consequential emissions avoided	The Government is committed to declared targets and is willing to adopt and deploy supporting measures
	Objective indicator 2: Increase in Installed capacity from wind and solar power (MW) and lifetime RE production (MWh) (GEF indicator 3)	0	1 MW (direct, small -scale sector only) = approximately 50 GWh lifetime production	9.5 MW (direct, small-scale sector only) = approximately 500 GWh lifetime production	
	Objective indicator 3: Number of direct project beneficiaries (UNDP mandatory indicator 3)	0	3,000 people, 50% women	28,500 people, 50% women	
Component/Outcome 1 Component 1: Large Scale Renewable Energy: Policy and Financial Derisking Measures	Outcome indicator 1.1: Capacity of the Government to design and implement policy initiatives enabling development of renewable energy markets	The Government has limited capacity to deliver renewable energy derisking strategies	Identified knowledge gaps and prepared training plan	25 policy –makers trained	The Government is willing to adopt the knowledge, best international practices and advice

Objective / Outcome	Objective and Outcome Indicators	Baseline	Mid-term Target	End of Project Target	Assumptions
Outcome 1: Appropriate policies, programmes and regulations are in place to reduce investors' risks, scale-up investment and enable the achievement of 2030 RES target	Outcome indicator 1.2: Reduction in DREI aggregate risk score across 9 DREI risk categories	Aggregate DREI risk score 32 out of 45 (72%) – in 2016 (Best in class - Germany - score 10/45 = 22%)	Aggregate DREI risk score 30 out of 45 (66%)	Aggregate DREI risk score 25 out of 45 (56%)	The Government supports and prioritizes targeted policies for development the market
Component/ Outcome 2 Component 2: Renewable Energy for Life: Policy Derisking Outcome 2: Appropriate policies, programmes and capacities are in place to reduce risk and attract investment in small-scale (on-grid and off-grid) renewables	Outcome indicator 2.1: Degree of support for small-scale renewable energy development in policy, planning and regulations	1 – Virtually no policy or strategy for small-scale climate change is in place	3 – Policy and strategy proposed and consultations ongoing (quality is good)	8 - Strong policy and regulatory frameworks designed with financial / market / incentive based mechanisms	The Government is committed to declared targets and is willing to adopt supporting measures
	Outcome indicator 2.2: Knowledge of small-scale applications in rural and urban areas	RES projects are perceived as more risky, expensive and second class energy supply options compared to traditional energy sources	Developed awareness raising media campaign and short-, medium- and long- term communication strategy to support development of RES. The communication will reflect gender perspectives, channels and needs	At least 25% of women and 25% of men in target stakeholder groups understand the benefits and risks of renewables and support their development	Key stakeholder groups are willing to participate in capacity building and awareness raising activities and have access to the right media sources

Objective / Outcome	Objective and Outcome Indicators	Baseline	Mid-term Target	End of Project Target	Assumptions
Component/ Outcome 3 Component 3: Renewable Energy for Life: Financial Derisking and Incentives Outcome 3: Sustainable business models and financial mechanisms to support their implementation in place for investment in small-scale urban and rural RES solutions	Outcome indicator 3.1: Developed financial and business models for small-scale RES in urban and rural sectors	There are no financial or innovative models in place. Projects are funded fully without use of financial mechanisms.	Business and financial models are designed for key market sectors for testing in selected pilot projects	Standard contracts / agreements prepared to facilitate scale-up	Interest from business and finance sectors to develop the market for selected small-scale renewable energy
	Outcome indicator 3.2: Appropriate financial instruments created for pilot investments in small-scale rural and urban renewables	Small-scale developments are very scarce and face a number of financial barriers.	Financial derisking instruments for small-scale on- and off-grid projects are designed in consultation with the stakeholders and with consideration of the best international practices	Financial derisking instruments for small-scale on- and off-grid projects are designed and deployed	Government policies and regulations (developed under outcome 2) remove barriers to investments sufficiently to make them attractive
	Outcome indicator 3.3: Investment mobilized to support small-scale projects	0	1000 small-scale projects addressing various technologies and sectors (using business / financial models from 3.1 and 3.2) are implemented	9500 small-scale projects	Adequate demand for small-scale developments

VII. MONITORING AND EVALUATION (M&E) PLAN

103. The project results as outlined in the Project Results Framework (section VI) will be monitored annually and evaluated periodically during project implementation to ensure that the project achieves these results.
104. Project-level monitoring and evaluation will be undertaken in compliance with UNDP requirements as outlined in the [UNDP POPP](#) and [UNDP Evaluation Policy](#). While these UNDP requirements are not outlined in this project document, the UNDP Country Office will work with the relevant project stakeholders to ensure UNDP M&E requirements are met in a timely fashion and to high quality standards. Additional mandatory GEF-specific M&E requirements (as outlined below) will be undertaken in accordance with the [GEF M&E policy](#) and other relevant GEF policies¹².
105. In addition to the mandatory UNDP and GEF M&E requirements, other M&E activities deemed necessary to support project-level adaptive management will be agreed during the Project Inception Workshop and will be detailed in the Inception Report. This will include the exact role of project target groups and other stakeholders in project M&E activities including the GEF Operational Focal Point (OFP) and national/regional institutes assigned to undertake project monitoring. The GEF OFP will strive to ensure consistency in the approach taken to the GEF-specific M&E requirements (notably the GEF Tracking Tools) across all GEF-financed projects in the country. This could be achieved, for example, by using one national institute to complete the GEF Tracking Tools for all GEF-financed projects in the country, including projects supported by other GEF Agencies.¹³

M&E oversight and monitoring responsibilities

106. **Project Manager:** The Project Manager is responsible for day-to-day project management and regular monitoring of project results and risks, including social and environmental risks. The Project Manager will ensure that all project staff maintain a high level of transparency, responsibility and accountability in M&E and reporting of project results. The Project Manager will inform the Project Steering Committee, the UNDP Country Office and the UNDP-GEF Regional Technical Advisor of any delays or difficulties as they arise during implementation so that appropriate support and corrective measures can be adopted.
107. The Project Manager will develop annual work plans based on the multi-year work plan included in Annex A. Multi Year Work Plan, including annual output targets to support the efficient implementation of the project. The Project Manager will ensure that the standard UNDP and GEF M&E requirements are fulfilled to the highest quality. This includes, but is not limited to, ensuring the results framework indicators are monitored annually in time for evidence-based reporting in the GEF PIR, and that the monitoring of risks and the various plans/strategies developed to support project implementation (e.g. gender strategy, KM strategy etc.) occur on a regular basis.
108. **Project Steering Committee:** The Project Steering Committee will take corrective action as needed to ensure the project achieves the desired results. The Project Steering Committee will hold project reviews to assess the performance of the project and appraise the Annual Work Plan for the following year. In the project's final year, the Project Steering Committee will hold an end-of-project review to capture lessons learned and discuss opportunities for scaling-up and to highlight project results and lessons learned with relevant audiences. This final review meeting will also discuss the findings outlined in the project terminal evaluation report and the management response.
109. **Project Implementing Partner:** The Implementing Partner is responsible for providing any and all required information and data necessary for timely, comprehensive and evidence-based project

¹² See https://www.thegef.org/gef/policies_guidelines

¹³ See https://www.thegef.org/gef/gef_agencies

reporting, including results and financial data, as necessary and appropriate. The Implementing Partner will strive to ensure project-level M&E is undertaken by national institutes, and is aligned with national systems so that the data used by and generated by the project supports national systems.

110. **UNDP Country Office:** The UNDP Country Office will support the Project Manager as needed, including through annual supervision missions. The annual supervision missions will take place according to the schedule outlined in the annual work plan. Supervision mission reports will be circulated to the project team and Project Steering Committee within one month of the mission. The UNDP Country Office will initiate and organize key GEF M&E activities including the annual GEF PIR, the independent mid-term review and the independent terminal evaluation. The UNDP Country Office will also ensure that the standard UNDP and GEF M&E requirements are fulfilled to the highest quality.
111. The UNDP Country Office is responsible for complying with all UNDP project-level M&E requirements as outlined in the [UNDP POPP](#). This includes ensuring the UNDP Quality Assurance Assessment during implementation is undertaken annually; that annual targets at the output level are developed, and monitored and reported using UNDP corporate systems; the regular updating of the ATLAS risk log; and, the updating of the UNDP gender marker on an annual basis based on gender mainstreaming progress reported in the GEF PIR and the UNDP ROAR. Any quality concerns flagged during these M&E activities (e.g. annual GEF PIR quality assessment ratings) must be addressed by the UNDP Country Office and the Project Manager.
112. The UNDP Country Office will retain all M&E records for this project for up to seven years after project financial closure in order to support ex-post evaluations undertaken by the UNDP Independent Evaluation Office (IEO) and/or the GEF IEO.
113. **UNDP-GEF Unit:** Additional M&E and implementation quality assurance and troubleshooting support will be provided by the UNDP-GEF Regional Technical Advisor and the UNDP-GEF Directorate as needed.
114. **Audit:** The project will be audited according to UNDP Financial Regulations and Rules and applicable audit policies on NIM implemented projects.¹⁴
115. **Additional GEF monitoring and reporting requirements:**
- a) **Inception Workshop and Report:** A project inception workshop will be held within two months after the project document has been signed by all relevant parties to, among others:
 - Re-orient project stakeholders to the project strategy and discuss any changes in the overall context that influence project implementation;
 - Discuss the roles and responsibilities of the project team, including reporting and communication lines and conflict resolution mechanisms;
 - Review the results framework and finalize the indicators, means of verification and monitoring plan;
 - Discuss reporting, monitoring and evaluation roles and responsibilities and finalize the M&E budget; identify national/regional institutes to be involved in project-level M&E; discuss the role of the GEF OFF in M&E;
 - Update and review responsibilities for monitoring the various project plans and strategies, including the risk log, Environmental and Social Management Plan and other safeguard requirements, the gender strategy, the knowledge management strategy and other relevant strategies;
 - Review financial reporting procedures and mandatory requirements, and agree on the arrangements for the annual audit;

¹⁴ See guidance here: <https://info.undp.org/global/popp/frm/pages/financial-management-and-execution-modalities.aspx>

- Plan and schedule Project Steering Committee meetings and finalize the first year annual work plan.

The Project Manager will prepare the inception report no later than one month after the inception workshop. The inception report will be cleared by the UNDP Country Office and the UNDP-GEF Regional Technical Adviser, and will be approved by the Project Steering Committee.

- b) **GEF Project Implementation Reports (PIRs):** The Project Manager, the UNDP Country Office, and the UNDP-GEF Regional Technical Advisor will provide objective input to the annual GEF PIR covering the reporting period July (previous year) to June (current year) for each full year of project implementation. The Project Manager will ensure that the indicators included in the project results framework are monitored annually in advance of the PIR submission deadline so that progress can be reported in the PIR. Any environmental and social risks and related management plans will be monitored regularly, and progress will be reported in the PIR.

The PIR submitted to the GEF will be shared with the Project Steering Committee. The UNDP Country Office will coordinate the input of the GEF Operational Focal Point and other stakeholders to the PIR as appropriate. The quality rating of the previous year's PIR will be used to inform the preparation of the subsequent PIR.

- c) **Lessons learned and knowledge generation:** Results from the project will be disseminated within and beyond the project intervention area through existing information sharing networks and forums. The project will identify, analyse and share lessons learned that might be beneficial to the design and implementation of similar projects and disseminate these lessons widely. There will be continuous information exchange between this project and other projects of similar focus in the same country, region and globally.

- d) **GEF Focal Area Tracking Tools:** The following GEF Tracking Tool(s) will be used to monitor global environmental benefit results: climate change mitigation. The baseline/CEO Endorsement GEF Focal Area Tracking Tool – submitted in “Annex D. GEF Tracking Tool” to this project document – will be updated by the Project Manager/Team and shared with the mid-term review consultants and terminal evaluation consultants (not the evaluation consultants hired to undertake the MTR or the TE) before the required review/evaluation missions take place. The updated GEF Tracking Tool(s) will be submitted to the GEF along with the completed Mid-term Review report and Terminal Evaluation report.

- e) **Independent Mid-term Review (MTR):** An independent MTR process will begin after the second PIR has been submitted to the GEF, and the MTR report will be submitted to the GEF in the same year as the 3rd PIR. The MTR findings and responses outlined in the management response will be incorporated as recommendations for enhanced implementation during the final half of the project's duration. The terms of reference, the review process and the MTR report will follow the standard templates and guidance prepared by the UNDP IEO for GEF-financed projects available on the [UNDP Evaluation Resource Center \(ERC\)](#). As noted in this guidance, the evaluation will be ‘independent, impartial and rigorous’. The consultants that will be hired to undertake the assignment will be independent from organizations that were involved in designing, executing or advising on the project to be evaluated. The GEF OFP and other stakeholders will be involved and consulted during the terminal evaluation process. Additional quality assurance support is available from the UNDP-GEF Directorate. The final MTR report will be available in English and will be cleared by the UNDP Country Office and the UNDP-GEF Regional Technical Adviser, and approved by the Project Steering Committee.

- f) **Terminal Evaluation (TE):** An independent TE will take place upon completion of all major project outputs and activities. The TE process will begin three months before operational

closure of the project allowing the evaluation mission to proceed while the project team is still in place, yet ensuring the project is close enough to completion for the evaluation team to reach conclusions on key aspects such as project sustainability. The Project Manager will remain on contract until the TE report and management response have been finalized. The terms of reference, the evaluation process and the final TE report will follow the standard templates and guidance prepared by the UNDP IEO for GEF-financed projects available on the [UNDP Evaluation Resource Center \(ERC\)](#). As noted in this guidance, the evaluation will be ‘independent, impartial and rigorous’. The consultants that will be hired to undertake the assignment will be independent from organizations that were involved in designing, executing or advising on the project to be evaluated. The GEF OFP and other stakeholders will be involved and consulted during the TE process. Additional quality assurance support is available from the UNDP-GEF Directorate. The final TE report will be cleared by the UNDP Country Office and the UNDP-GEF Regional Technical Adviser, and will be approved by the Project Steering Committee. The TE report will be publically available in English on the UNDP ERC.

The UNDP Country Office will include the planned project TE in the UNDP Country Office evaluation plan, and will upload the final TE report in English and the corresponding management response to the UNDP ERC. Once uploaded to the ERC, the UNDP IEO will undertake a quality assessment and validate the findings and ratings in the TE report, and rate the quality of the TE report. The UNDP IEO assessment report will be sent to the GEF IEO along with the project TE report.

- g) **Final Report:** The project’s terminal PIR along with the TE report and corresponding management response will serve as the final project report package. The final project report package shall be discussed with the Project Steering Committee during an end-of-project review meeting to discuss lesson learned and opportunities for scaling-up.

Table 8: Mandatory GEF M&E Requirements and M&E Budget

GEF M&E requirements	Primary responsibility	Indicative costs to be charged to the Project Budget ¹⁵ (US\$)		Time frame
		GEF grant	Co-financing	
Inception Workshop	UNDP Country Office	10,000		Within two months of project document signature
Inception Report	Project Manager	None	None	Within two weeks of inception workshop
Standard UNDP monitoring and reporting requirements as outlined in the UNDP POPP	UNDP Country Office	None	None	Quarterly, annually
Monitoring of indicators in project results framework	Project Manager	<i>Per year: 4,000 Total: 20,000</i>		Annually
GEF Project Implementation Report (PIR)	Project Manager and UNDP Country Office and UNDP-GEF team	None	None	Annually
NIM Audit as per UNDP audit policies	UNDP Country Office	<i>Per year: 5,000 Total: 25,000</i>		Annually or other frequency as per UNDP Audit policies
Lessons learned and knowledge generation	Project Manager	None		Annually

¹⁵ Excluding project team staff time and UNDP staff time and travel expenses.

GEF M&E requirements	Primary responsibility	Indicative costs to be charged to the Project Budget ¹⁵ (US\$)		Time frame
		GEF grant	Co-financing	
Monitoring of environmental and social risks, and corresponding management plans as relevant	Project Manager UNDP CO	None		On-going
Addressing environmental and social grievances	Project Manager UNDP Country Office BPPS as needed	None for time of Project Manager, and UNDP CO		
Project Steering Committee meetings	PSC UNDP Country Office Project Manager	None		At minimum annually
Supervision missions	UNDP Country Office	None ¹⁶		Annually
Oversight missions	UNDP-GEF team	None ¹⁶		Troubleshooting as needed
Knowledge management	Project Manager	45,000 maximum <1% of GEF grant		On-going
GEF Secretariat learning missions/site visits	UNDP Country Office and Project Manager and UNDP-GEF team	None		To be determined.
Mid-term GEF Tracking Tool to be updated	Project Manager	5,000		Before mid-term review mission
Independent Mid-term Review (MTR) and management response	UNDP Country Office and Project team and UNDP-GEF team	25,000		Between 2 nd and 3 rd PIR
Terminal GEF Tracking Tool to be updated	Project Manager	10,000		Before terminal evaluation mission takes place
Independent Terminal Evaluation (TE) included in UNDP evaluation plan, and management response	UNDP Country Office and Project team and UNDP-GEF team	28,000		At least three months before operational closure
Translation of MTR and TE reports into English	UNDP Country Office	5,000		2 months after MTR and TE
TOTAL indicative cost Excluding project team staff time, and UNDP staff / travel expenses		173,000		

¹⁶ The costs of UNDP Country Office and UNDP-GEF Unit's participation and time are charged to the GEF Agency Fee.

VIII. GOVERNANCE AND MANAGEMENT ARRANGEMENTS

116. **Roles and responsibilities of the project's governance mechanism:** The project will be implemented following UNDP's national implementation modality, according to the Standard Basic Assistance Agreement between UNDP and the Government of Kazakhstan, and the Country Programme.
117. The **Implementing Partner** for this project is Ministry of Energy of the Republic of Kazakhstan. The Implementing Partner is responsible and accountable for managing this project, including the monitoring and evaluation of project interventions, achieving project outcomes, and for the effective use of UNDP resources.
118. The project organisational structure is presented in Figure 11.
119. The **Project Steering Committee** (PSC, and also called Project Board) is responsible for making by consensus, management decisions when guidance is required by the Project Manager, including recommendation for UNDP/Ministry of Energy approval of project plans and revisions. To ensure UNDP's ultimate accountability, Project Steering Committee decisions should be made in accordance with standards that shall ensure management for development results, best value for money, fairness, integrity, transparency and effective international competition. In the case where a consensus cannot be reached within the PSC, final decision shall rest with the UNDP Programme Manager. The terms of reference for the PSC is contained in Annex E.
120. The PSC will include representatives of the Ministry of Energy as the Executive and Senior Beneficiary and UNDP as the Senior Supplier. It will also include key national governmental and non-governmental agencies as appropriate. Independent third parties such as international organizations or national NGOs may attend augmented Project Steering Committee meetings as observers as well. The Project Steering Committee will be balanced in terms of gender. Potential members of the PSC will be reviewed and recommended for approval during the Project Appraisal Committee (PAC) meeting.
121. The PSC will be responsible for making management decisions for the project, in particular when guidance is required by the Project Manager (PM). The PSC will play a critical role in project monitoring and evaluations by assuring the quality of these processes and associated products, and by using evaluations for improving performance, accountability and learning. The PSC will ensure that required resources are committed. It will also arbitrate on any conflicts within the project and negotiate solutions to any problems with external bodies. Project reviews by the PSC are made at designated decision points during the running of a project (at least once a year), or as necessary when raised by the PM. In addition, it will approve the appointment and responsibilities of the PM and any delegation of its Project Assurance responsibilities. Based on the approved Annual Work Plan, the PSC can also consider and approve the annual plan and also approve modifications of the original plans. As noted above, in order to ensure UNDP's ultimate accountability, PSC decisions should be made in accordance with standards¹⁷ that shall ensure best value for money, fairness, integrity, transparency and effective international competition.
122. The Ministry of Agriculture, Ministry of Industry and New Technologies, KEGOC, central and local authorities in rural regions, and local communities will benefit from project results through development of their capacity to participate in the decision-making and progress-monitoring processes. In addition, all stakeholders will be covered by the corresponding training, education,

¹⁷ UNDP Financial Rules and Regulations: Chapter E, Regulation 16.05: a) The administration by executing entities or, under the harmonized operational modalities, implementing partners, of resources obtained from or through UNDP shall be carried out under their respective financial regulations, rules, practices and procedures only to the extent that they do not contravene the principles of the Financial Regulations and Rules of UNDP; and b) Where the financial governance of an executing entity or, under the harmonized operational modalities, implementing partner, does not provide the required guidance to ensure best value for money, fairness, integrity, transparency, and effective international competition that of UNDP shall apply.

and outreach activities, and will also benefit from an improved environment at the central, regional and local levels.

123. The **Project Manager** will run the project on a day-to-day basis on behalf of the Implementing Partner within the constraints laid down by the PSC. The Project Manager function will end when the final project terminal evaluation report and corresponding management response, and other documentation required by the GEF and UNDP, has been completed and submitted to UNDP (including operational closure of the project).
124. **Project Assurance:** The Project Assurance role at the country level will be provided by the UNDP County Office, and supports the Project Steering Committee by carrying out objective and independent project oversight and monitoring functions. Additional quality assurance will be provided by the UNDP Regional Technical Advisor as needed.
125. **UNDP Direct Project Services as requested by Government:** The UNDP, as GEF Agency for this project, will provide project management cycle services for the project as defined by the GEF Council. In addition, the Government of Kazakhstan may request UNDP direct services for specific projects, according to its policies and convenience. The UNDP and Government of Kazakhstan acknowledge and agree that those services are not mandatory, and will be provided only upon Government request. If requested the services would follow the UNDP policies on the recovery of direct costs. These services (and their costs) are specified in the Letter of Agreement (Annex K). As is determined by the GEF Council requirements, these service costs will be assigned as Project Management Cost, duly identified in the project budget as Direct Project Costs. Eligible Direct Project Costs should not be charged as a flat percentage. They should be calculated on the basis of estimated actual or transaction based costs and should be charged to the direct project costs account codes: "64397- Services to projects – CO staff" and "74596 - Services to projects GOE for CO".
126. **Agreement on intellectual property rights and use of logo on the project's deliverables and disclosure of information:** In order to accord proper acknowledgement to the GEF for providing grant funding, the GEF logo will appear together with the UNDP logo on all promotional materials, other written materials like publications developed by the project, and project hardware. Any citation on publications regarding projects funded by the GEF will also accord proper acknowledgement to the GEF. Information will be disclosed in accordance with relevant policies notably the UNDP Disclosure Policy¹⁸ and the GEF policy on public involvement¹⁹.
127. **Project management:** The **Project Team (PT)** will be comprised of core staff including the Project Manager (PM), and Project Administrative and Financial Assistant. The PM will be recruited in accordance with UNDP's regulations to manage actual implementation of the project and will be based in Astana. 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 institutions and hold regular consultations with other project stakeholders and partners. Under the direct supervision of the PM, the Administrative Assistant will be responsible for administrative and financial issues, and will get support from UNDP administration. Legal, financial, engineering and capacity building experts, as required, will support the PM in implementation of relevant thematic project activities based on their sound professional expertise (provisional TORs for the key project staff are provided in Annex E). The PM will be responsible for the consultants' timely deliverables and their contributions to the overall project outputs.

¹⁸ See http://www.undp.org/content/undp/en/home/operations/transparency/information_disclosurepolicy/

¹⁹ See https://www.thegef.org/gef/policies_guidelines

128. It is expected that the project office will be in Astana. There will be no other project office, but project staff will travel as needed. Consultants and national partners will also help to maintain the project’s presence outside of Astana.

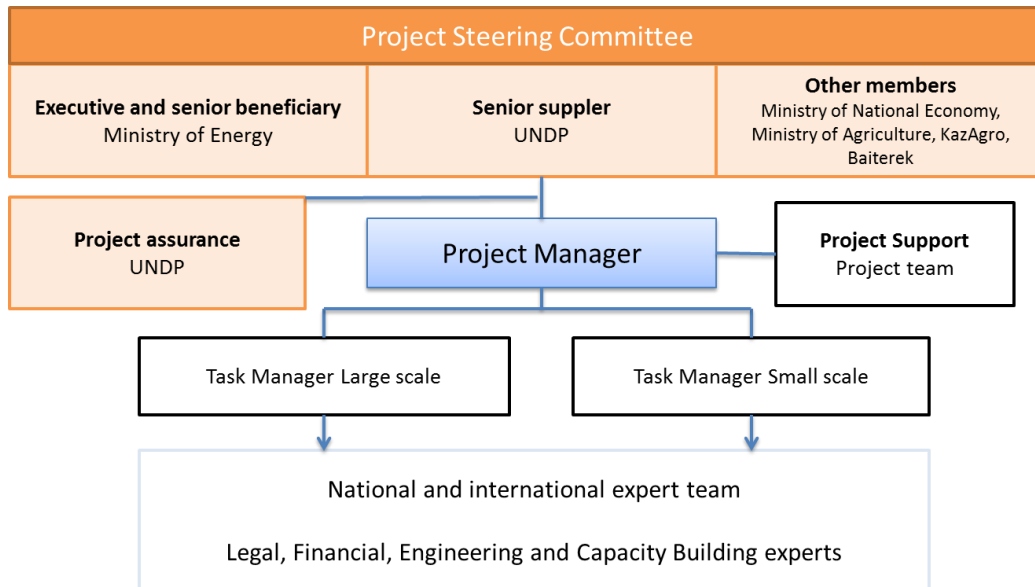


Figure 11: Project organisational chart

IX. FINANCIAL PLANNING AND MANAGEMENT

129. The total cost of the project is US\$ 55,520,000. This is financed through a GEF grant of US\$4,510,000, with US\$100,000 in co-financing to be administered by UNDP and US\$ 50,910,000 in parallel co-financing. UNDP, as the GEF Implementing Agency, is responsible for the execution of the GEF resources and the cash co-financing transferred to UNDP bank account only.

130. Parallel co-financing: The actual realization of project co-financing will be monitored during the MTR and TE process, and will be reported to the GEF. The confirmed co-financing is outlined in the following table. Co-financing letters are provided in Annex P.

Table 9: Co-financing sources and applications

Co-financing source	Co-financing type	Co-financing amount (US\$)	Planned Activities/Outputs	Risks	Risk Mitigation Measures
Ministry of Energy	In kind	250,000	Development of legislation for large-scale and policies	Shift in government priorities to other technologies	On-going dialogue and partnership with authorities
Ministry of Energy	Grants	3,000,000	Support to small-scale renewable energy projects, via the Renewable Energy Transfers Programme	Shift in government priorities to other technologies	On-going dialogue and partnership with authorities
Eurasian Development Bank	Loans	30,000,000	Credit line for investment in renewable energy	Failure to identify bankable projects	Technical assistance provided for project development, with limited concessional finance for first movers.
Ergonomika Ltd	Equity	1,500,000	Investment in small-scale renewable energy	- Failure to obtain finance - Shift in investment priorities - Technical risks of plant operation	Technical assistance provided for project development and to facilitate financing. Concessional finance provided to improve profitability.
JSC International Center for Energy Equity Efficiency "ProEco"	Equity	800,000	Investment in small-scale renewable energy	- Failure to obtain finance - Shift in investment priorities - Technical risks of plant operation	Technical assistance provided for project development and to facilitate financing. Concessional finance provided

Co-financing source	Co-financing type	Co-financing amount (US\$)	Planned Activities/Outputs	Risks	Risk Mitigation Measures
					to improve profitability.
JSC Astana Solar	Equity	13,960,000	Investment in large and small-scale renewable energy	- Shift in investment priorities - Technical risks of plant operation	Technical assistance provided for project development and to facilitate financing. Concessional finance provided to improve profitability.
Enkom ST LL	Equity	800,000	Investment in small-scale renewable energy	- Failure to obtain finance - Shift in investment priorities - Technical risks of plant operation	Technical assistance provided for project development and to facilitate financing. Concessional finance provided to improve profitability.
Nazarbaev University	In kind	300,000	Research related to renewable energy standards	- Shift in organisational priorities	Ongoing dialogue and partnership
KazGBC	In kind	300,000	Research related to renewable energy standards	- Shift in organisational priorities	Ongoing dialogue and partnership

131. **Budget Revision and Tolerance:** As per UNDP requirements outlined in the UNDP POPP, the Project Steering Committee will agree on a budget tolerance level for each plan under the overall annual work plan allowing the project manager to expend up to the tolerance level beyond the approved project budget amount for the year without requiring a revision from the Project Steering Committee. Should the following deviations occur, the Project Manager and UNDP Country Office will seek the approval of the UNDP-GEF team as these are considered major amendments by the GEF:

- a) Budget re-allocations among components in the project with amounts involving 10% of the total project grant or more;
- b) Introduction of new budget items/or components that exceed 5% of original GEF allocation.

132. Any over expenditure incurred beyond the available GEF grant amount will be absorbed by non-GEF resources (e.g. UNDP TRAC or cash co-financing).

133. **Refund to Donor:** Should a refund of unspent funds to the GEF be necessary, this will be managed directly by the UNDP-GEF Unit in New York.

134. **Project Closure:** Project closure will be conducted as per UNDP requirements outlined in the UNDP POPP²⁰. On an exceptional basis only, a no-cost extension beyond the initial duration of the project will be sought from in-country UNDP colleagues and then the UNDP-GEF Executive Coordinator.
135. **Operational completion:** The project will be operationally completed when the last UNDP-financed inputs have been provided and the related activities have been completed. This includes the final clearance of the Terminal Evaluation Report (that will be available in English) and the corresponding management response, and the end-of-project review PSC meeting. The Implementing Partner through a PSC decision will notify the UNDP Country Office when operational closure has been completed. At this time, the relevant parties will have already agreed and confirmed in writing on the arrangements for the disposal of any equipment that is still the property of UNDP.
136. **Financial completion:** The project will be financially closed when the following conditions have been met:
- a) The project is operationally completed or has been cancelled;
 - b) The Implementing Partner has reported all financial transactions to UNDP;
 - c) UNDP has closed the accounts for the project;
 - d) UNDP and the Implementing Partner have certified a final Combined Delivery Report (which serves as final budget revision).
137. The project will be financially completed within 12 months of operational closure or after the date of cancellation. Between operational and financial closure, the implementing partner will identify and settle all financial obligations and prepare a final expenditure report. The UNDP Country Office will send the final signed closure documents including confirmation of final cumulative expenditure and unspent balance to the UNDP-GEF Unit for confirmation before the project will be financially closed in Atlas by the UNDP Country Office.

²⁰ see <https://info.undp.org/global/popp/ppm/Pages/Closing-a-Project.aspx>

X. TOTAL BUDGET AND WORK PLAN

Atlas Proposal or Award ID:	00097249	Atlas Primary Output Project ID:	00101058
Atlas Proposal or Award Title:	Derisking Renewable Energy Investment in Kazakhstan		
Atlas Business Unit	KAZ10		
Atlas Primary Output Project Title	Derisking Renewable Energy Investment in Kazakhstan		
UNDP-GEF PIMS No.	5490		
Implementing Partner	Ministry of Energy of Kazakhstan (MoE)		

GEF Component/ Atlas Activity	Responsible Party (Atlas Implementing Agent)	Fund ID	Donor Name	Atlas Budgetary Account Code	ATLAS Budget Description	Amount Year 1 (USD)	Amount Year 2 (USD)	Amount Year 3 (USD)	Amount Year 4 (USD)	Amount Year (USD)	Total (USD)	Budget Notes:
Component/ Outcome 1	MoE	62000	GEF	71200	International Consultants	30,000	102,000	87,000	30,000	13,000	262,000	1
				71300	Local Consultants	15,000	68,000	69,000	30,000	12,000	194,000	2
				71400	Contractual Services – Individ	20,000	27,000	27,000	27,000	27,000	128,000	3
				71600	Travel	8,000	10,000	10,000	10,000	10,000	48,000	4
				72800	IT Equipment	7,000	0	0	0	0	7,000	5
				75700	Training, Workshops and Confer	10,000	10,000	10,000	10,000	10,000	50,000	6
				74500	Miscellaneous	2,000	2,500	2,500	2,500	1,500	11,000	7
					Total Outcome 1	92,000	219,500	205,500	109,500	73,500	700,000	
Component/ Outcome 2	MoE	62000	GEF	71200	International Consultants	30,000	100,000	86,000	30,000	23,000	269,000	8
				71300	Local Consultants	10,000	60,000	62,000	15,000	17,000	164,000	9
				71400	Contractual Services – Individ	32,000	44,000	27,000	27,000	27,000	157,000	10

GEF Component/ Atlas Activity	Responsible Party (Atlas Implementing Agent)	Fund ID	Donor Name	Atlas Budgetary Account Code	ATLAS Budget Description	Amount Year 1 (USD)	Amount Year 2 (USD)	Amount Year 3 (USD)	Amount Year 4 (USD)	Amount Year (USD)	Total (USD)	Budget Notes:
Component/ Outcome 2 (continued)	MoE	62000	GEF	71600	Travel	10,000	10,000	10,000	10,000	10,000	50,000	11
				72100	Contractual Services-Companies	0	98,000	108,000	108,000	88,500	402,500	12
				75700	Training, Workshops and Confer	10,000	10,000	10,000	10,000	10,000	50,000	13
				74500	Miscellaneous	1,500	1,500	1,500	1,500	1,500	7,500	14
					Total Outcome 2	93,500	323,500	304,500	201,500	177,000	1,100,000	
Component/ Outcome 3	MoE	62000	GEF	71200	International Consultants	0	83,000	97,000	0	12,000	192,000	15
				71300	Local Consultants	0	46,000	50,000	0	3,000	99,000	16
				71400	Contractual Services – Individ	28,000	37,000	54,000	54,000	54,000	227,000	17
				71600	Travel	0	7,000	8,000	8,000	7,000	30,000	18
				72100	Contractual Services-Companies	0	0	450,000	600,000	850,000	1,900,000	19
				72400	Communications	1,500	1,500	1,500	1,500	1,500	7,500	20
				72500	Supplies	1,000	1,000	1,000	1,000	1,000	5,000	21
				74200	Audio Visual&Print Prod Costs	900	0	2,000	0	2,500	5,400	22
				75700	Training, Workshops and Confer	5,500	20,000	0	0	0	25,500	23
				74500	Miscellaneous	1,000	2,000	2,000	2,000	1,600	8,600	24
					Total Outcome 3	37,900	197,500	665,500	666,500	932,600	2,500,000	
				71400	Contractual Services – Individ	7,000	11,000	11,000	11,000	11,000	51,000	25

GEF Component/ Atlas Activity	Responsible Party (Atlas Implementing Agent)	Fund ID	Donor Name	Atlas Budgetary Account Code	ATLAS Budget Description	Amount Year 1 (USD)	Amount Year 2 (USD)	Amount Year 3 (USD)	Amount Year 4 (USD)	Amount Year (USD)	Total (USD)	Budget Notes:
Project Management	UNDP/MoE	62000	GEF	71600	Travel	3,000	3,000	3,000	3,000	3,000	15,000	26
				72100	Contractual Services-Companies	5,000	5,000	5,000	5,000	5,000	25,000	27
				72200	Equipment and Furniture	1,500	0	0	0	0	1,500	28
				72400	Communications	500	500	500	500	500	2,500	29
				72500	Supplies	500	500	500	500	500	2,500	30
				73100	Rental & Maintenance-Premises	9,000	12,000	12,000	12,000	12,000	57,000	31
				74200	Audio Visual&Print Prod Costs	100		500		500	1,100	32
				74500	Miscellaneous	500	500	500	500	500	2,500	33
				74596	Services to projects – GOE for CO	8,000	12,000	12,000	11,900	8,000	51,900	34
					Total Project Management	35,100	44,500	45,000	44,400	41,100	210,000	
PROJECT TOTAL						258,500	785,000	1,220,500	1,021,900	1,224,100	4,510,000	35

Budget notes:

- Costs of hiring international consultants to provide technical assistance for development of derisking measures for large-scale renewable energy development issues: US\$ 630 per day x 180 days in total for financial experts to develop measures addressing power market risk, counterparty risks, currency risks, US\$ 630 per day x 30 days for technical experts to develop measures; addressing grid and transmission network, US\$ 820 x 150 days for legal experts to develop measures addressing permitting risks, grid and transmission network risk, counterparty risks. Pro rata (16%) costs of contracting the services of an international mid-term evaluation consultant. Pro rata (16%) costs of contracting the services of an international final evaluation consultant.
- Costs of hiring local consultants to provide technical assistance for development of derisking measures for large-scale renewable energy: US\$ 300 per day x 200 days in total for financial experts to develop measures addressing power market risk, counterparty risks, currency risks, US\$ 300 per day x 100 days for technical experts to develop measures addressing grid and transmission network, US\$ 460 x 220 days for legal experts to develop measures addressing permitting risks, grid and transmission network risk, counterparty risks. Pro rata (16%) costs of contracting the services of a national mid-term evaluation consultant. Pro rata (16%) costs of contracting the services of a national final evaluation consultant.

- 3 Hiring a full-time Task Manager to provide expertise and technical assistance for large-scale renewable energy developments
- 4 International and local travel to participate in the networking events, conferences and workshops related to large-scale renewables: Y1: 3 international trips (7 days each) US\$ 2000 per trip per person, 8 local trips (5 days each) US\$ 250 per trip, Y2-Y5: 4 international trips (7 days each) US\$ 2000 per trip per person, 8 local trips (5 days each) US\$ 250 per trip per year
- 5 Costs related to procurement of IT equipment for technical, economic, financial and environmental analysis
- 6 Provision of training to relevant stakeholders on various large-scale renewable energy: 1 training a year for 15 participants.
- 7 Miscellaneous costs related to Outcome 1
- 8 Costs of hiring international consultants to provide technical assistance for development of policy-derisking measure for small-scale renewable energy: US\$ 625 per day x 100 days in total policy experts, US\$ 625 per day x 100 days in total MRV experts, US\$ 625 per day x 100 days in total quality control experts, US\$ 625 per day x 50 days in total communication experts, US\$ 831 per day x 50 days in total legal experts. Pro rata (26%) costs of contracting the services of an international mid-term evaluation consultant. Pro rata (26%) costs of contracting the services of an international final evaluation consultant.
- 9 Costs of hiring local consultants to provide technical assistance for development of policy-derisking measures for small-scale renewable energy: US\$ 300 per day x 100 days in total policy experts, US\$ 300 per day x 100 days in total MRV experts, US\$ 300 per day x 100 days in total quality control experts, US\$ 300 per day x 50 days in total communication experts, US\$ 460 per day x 50 days in total legal experts. Pro rata (26%) costs of contracting the services of a national mid-term evaluation consultant. Pro rata (26%) costs of contracting the services of a national final evaluation consultant.
- 10 Hiring a full-time Task Manager to provide expertise and technical assistance for small-scale renewable energy developments; Hiring full-time analyst for small-scale renewables (Y1-Y2)
- 11 International and local travel to participate in the networking events. conferences and workshops related to small-scale renewables, 4 international trips US\$ 2000 per trip per person, 8 local trips (5 days each) US\$ 250 per trip per year
- 12 Costs of contracting companies to implement MRV design and maintenance of MRV system; Costs of contracting companies for Implementation of the media campaign activities; Costs of contracting companies for establishment and maintenance of the technology platform
- 13 Costs related to organization of training on MRV, training for local policy-making, training to enforce quality control system: 1 training a year for 20 participants each.
- 14 Miscellaneous costs related to Outcome 2
- 15 Cost of the contract for hiring an international consultant to develop business models and financial mechanisms for support of small-scale renewables: US\$ 625 per day x 200 days in total financial and business experts and consultants designing and administrating the grant, US\$ 860 per day x 50 days in total legal experts. Pro rata (58%) costs of contracting the services of an international mid-term evaluation consultant. Pro rata (58%) costs of contracting the services of an international final evaluation consultant.
- 16 Cost of the contract for hiring a local consultant to develop business models and financial mechanisms for support of small-scale renewables: US\$ 315 per day x 220 days in total for financial and business experts and consultants designing and administrating the grant, US\$ 479 per day x 50 days in total legal experts. Pro rata (58%) costs of contracting the services of a national mid-term evaluation consultant. Pro rata (58%) costs of contracting the services of a national final evaluation consultant.

- 17 Project Manager salary; Hiring full-time analyst for small-scale renewables (Y3-Y5)
- 18 International and local travel to participate in the networking events, conferences and workshops related to financing small-scale renewables: Y1-Y4 3 international trips (7 days each) US\$ 2000 per trip per person, 8 local trips (5 days each) US\$ 250 per trip per year; Y5: 9 local trips (5 days each) US\$ 250 per trip per year, 3 international trips (5 days each) US\$ 1600 per trip.
- 19 Financial instrument to address incremental costs for small-scale renewable energy developments. The financial mechanism is to be determined based on Output 3.2 during Years 1 and 2 of implementation. The design will be fully compliant with UNDP rules and procedures; this financial mechanism will be deployed under Output 3.4.
- 20 Costs related to communications
- 21 Office supplies
- 22 Print production costs
- 23 Costs for training of local financial institutions (3 FIs, 1 training event) and ongoing capacity building support through workshops related to deployment of financing mechanism
- 24 Miscellaneous costs related to Outcome 3
- 25 Project assistant salary
- 26 Travel (field and monitoring visits): 1 international trips (7 days each) US\$ 2000 per trip per person, 4 local trips (5 days each) US\$ 250 per trip per year
- 27 Costs related to project annual audit (external). This line includes the cost of the mandatory annual financial audit. This item is included in the M&E table in Section VII of this Project Document. In this budget table, the financial audit line is included under Project Management, not under components, in order to reflect the character of this audit work as a management activity. See Note 35 below.
- 28 Cost related to procurement of office furniture for project team
- 29 Costs related to project communications (land phones, Internet)
- 30 Office supplies for project team
- 31 Cost related to common premises (office rental)
- 32 Print production costs related to project management documents
- 33 Miscellaneous costs related to project panagement
- 34 Direct project costs; refer to DPC letter Annex K for detailed breakdown
- 35 The budget for M&E and knowledge-sharing is presented separately in Section VII of the Project Document. However, in this budget, all M&E and knowledge-sharing activities are contained within the individual components for consistency with the original format of the budget in the approved Project Framework Document. Financial audit, which is also a required M&E activity, is listed under Project Management (see Budget Note 25).

Summary of Funds (\$)

Source of Funds	Amount Year1	Amount Year 2	Amount Year 3	Amount Year 4	Amount Year 5	Total
GEF	258,500	785,000	1,220,500	1,021,900	1,224,100	4,510,000
UNDP	10,000	26,600	26,600	26,800	10,000	100,000
Ministry of Energy	345,000	846,600	1,066,600	766,800	225,000	3,250,000
Eurasian Development Bank	1,000,000	5,000,000	6,000,000	9,000,000	9,000,000	30,000,000
Ergonomika Ltd	150,000	300,000	300,000	350,000	400,000	1,500,000
JSC ProEco	120,000	240,000	200,000	160,000	80,000	800,000
JSC Astana Solar	2,500,000	2,500,000	3,000,000	3,000,000	2,960,000	13,960,000
Nazarbaev University (Kuntech)	50,000	80,000	70,000	60,000	40,000	300,000
KazGBC	40,000	85,000	75,000	70,000	30,000	300,000
Enkom ST LLP	100,000	200,000	260,000	160,000	80,000	800,000
TOTAL	4,573,500	10,063,200	12,218,700	14,615,500	14,049,100	55,520,000

XI. LEGAL CONTEXT

138. 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 Standard Basic Assistance Agreement (SBAA) and all CPAP provisions apply to this document.
139. 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. To this end, 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.
140. 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 the Implementing Partner's obligations under this Project Document.
141. 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/sc/committees/1267/aq_sanctions_list.shtml. This provision must be included in all sub-contracts or sub-agreements entered into under/further to this Project Document.
142. The Audit will be conducted in accordance with UNDP Financial Regulations and Rules, and applicable audit policies on UNDP projects.
143. Any designations on maps or other references employed in this project document do not imply the expression of any opinion whatsoever on the part of UNDP concerning the legal status of any country, territory, city or area or its authorities, or concerning the delimitation of its frontiers or boundaries.

XII. ANNEXES

Mandatory Annexes:

Annex A. Multi Year Work Plan

Annex B. Monitoring Plan

Annex C. Evaluation Plan

Annex D. GEF Tracking Tool

Annex E. Terms of Reference for the Project Steering Committee

Annex F. Social and Environmental Screening

Annex G. Environmental and Social Management Plan (ESMP) for moderate and high risk projects only

Annex H. UNDP Project Quality Assurance Report

Annex I. UNDP Risk Log

Annex J. Results of the Capacity Assessment of the Project Implementing Partner and HACT Micro Assessment

Annex K. Additional Agreements

Additional Annexes:

Annex L. Kazakhstan Renewable Energy Policy Overview

Annex M. GHG Calculations

Annex N. Stakeholder Analysis

Annex O. List of References and Resources Consulted

Annex P. Co-financing letters

Annex Q. Gender mainstreaming and action plan

Annex A. Multi Year Work Plan

Task	Responsible Party	Year 1				Year 2				Year 3				Year 4				Year 5				
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	
Component 1																						
Activity 1.1.1	PMU, Task Manager Large Scale																					
Activity 1.1.2																						
Activity 1.1.3																						
Activity 1.1.4																						
Activity 1.1.5																						
Activity 1.1.6																						
Activity 1.1.7																						
Activity 1.1.8																						
Activity 1.1.9																						
Activity 1.2.1																						
Activity 1.2.2																						
Component 2																						
Activity 2.1.1	PMU, Task Manager Small- Scale																					
Activity 2.1.2																						
Activity 2.1.3																						
Activity 2.2.1																						
Activity 2.2.2																						
Activity 2.2.3																						
Activity 2.2.4																						
Activity 2.3.1																						
Activity 2.3.2																						
Activity 2.3.3																						
Activity 2.3.4																						
Activity 2.4.1																						
Activity 2.4.2																						
Activity 2.4.3																						
Activity 2.4.4																						
Activity 2.4.5																						
Component 3																						
Activity 3.1.1		PMU, Task Manager Small- Scale																				
Activity 3.1.2																						
Activity 3.1.3																						
Activity 3.1.4																						
Activity 3.2.1																						

Task	Responsible Party	Year 1				Year 2				Year 3				Year 4				Year 5			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Activity 3.2.2																					
Activity 3.2.3																					
Activity 3.2.4																					
Activity 3.2.5																					
Activity 3.3.1																					
Activity 3.3.2																					
Activity 3.4.1																					

Annex B. Monitoring Plan

The Project Manager will collect results data according to the following monitoring plan.

Monitoring	Indicators	Description	Data source/ Collection Methods	Frequency	Responsible for data collection	Means of verification	Assumptions and Risks
Project objective from the results framework	Indicator 1: Total Lifetime Direct and Consequential GHG Emissions Avoided (Tons CO _{2eq}) (GEF indicator 1)	Direct and consequential emission reductions are achieved	<i>Audits</i>	Annually Reported in DO tab of the GEF PIR	UNDP CO	Project final evaluation report	Policy and financial derisking measures are adopted; government remains fully committed to development of RES
	Indicator 2: Increase in Installed capacity from wind and solar power (MW) and lifetime RE production (MWh) (GEF indicator 3)	New wind and solar PV developments are implemented	Power purchase agreements (PPA), loan agreements with local banks for small-scale developments	Annually Reported in DO tab of the GEF PIR	UNDP CO	Project final evaluation report	Policy and financial derisking measures are adopted; government remains fully committed to development of RES
	Indicator 7 Number of direct project beneficiaries (UNDP mandatory indicator 3).	Local communities and population benefit from economic, social and environmental improvements associated with development of large- and small-scale RES	Survey	Annually Reported in DO tab of the GEF PIR	UNDP CO	Project final evaluation report	Government remains fully committed to development of RES, local financial institutions are willing to support small-scale developments
Project Outcome 1	Indicator 1.1: Capacity of the Government to design and implement policy initiatives enabling development of renewable energy markets	Government has necessary skills and understanding to design policy-derisking measures for development of large-scale RES	Survey	Annually Reported in DO tab of the GEF PIR	UNDP CO	Post-training survey	Government is interested in receiving the knowledge and participation in the training
	Indicator 1.2: Reduction in DREI aggregate risk score across 9 DREI risk categories	The key risks categories (as identified in DREI) are no longer provide significant risks to projects in investors perception	<i>Survey, Interviews with investors</i>	After final PIR submitted to GEF	UNDP CO	Project final evaluation report	Government remains fully committed to development of RES and is willing to adopt policy and financial-derisking measures for large-scale RES

Monitoring	Indicators	Description	Data source/ Collection Methods	Frequency	Responsible for data collection	Means of verification	Assumptions and Risks
Project Outcome 2	Indicator 2.1: Degree of support for small-scale renewable energy development in policy, planning and regulations	Policy-derisking measures supporting development of small-scale are in place	Government plans, strategies and policy documents	Annually	UNDP CO	Project final evaluation report, Policy and regulatory proposals	Government is willing to adopt policy derisking measures for small-scale RES
	Indicator 2.2: Knowledge of small-scale applications in rural and urban areas is improved	The population understands the benefits of small-scale RES	Survey	After final PIR submitted to GEF	UNDP CO	Project final evaluation report	Government remains fully committed to development of RES, local financial institutions are willing to support small-scale developments
Project Outcome 3	Indicator 3.1: Developed financial and business models for small-scale RES in urban and rural sectors	Models are developed by the consultants	Report	After final PIR submitted to GEF	UNDP CO	Consultant's report	
	Indicator 3.2: Appropriate financial instruments created for pilot investments in small-scale rural and urban renewables	Developed models are endorsed by the government and local financial institutions	Government policy documents, interviews with financial institutions	Annually from 3rd year of the project Reported in DO tab of the GEF PIR	UNDP CO	Policy and regulatory proposals, local financial institutions' documents	Government supports development of small-scale RES, local financial institutions are willing to support small-scale developments
	Indicator 3.3: Investment mobilized to support small-scale projects	Small-scale developers are investing in wind and solar PV	Grant applications	Annually from 3d year of the project	UNDP CO	Project final evaluation report	Adequate demand for small-scale RES finance
Project Management	Indicator 4. 1	Adequate monitoring and evaluation facilitates smooth and successful project implementation	PIR, Mid-term Review, Project Terminal report	Annually Reported in DO tab of the GEF PIR	UNDP CO	PIR, Mid-term Review, Project Terminal report	
	Indicator 4. 2	Project staff and stakeholders are aware of gender issues in project monitoring and evaluation	PIR, Mid-term Review, Project Terminal report	Annually Reported in DO tab of the GEF PIR	UNDP CO	PIR, Mid-term Review, Project Terminal report	

Monitoring	Indicators	Description	Data source/ Collection Methods	Frequency	Responsible for data collection	Means of verification	Assumptions and Risks
Mid-term GEF Tracking Tool	N/A	N/A	Standard GEF Tracking Tool available at www.thegef.org Baseline GEF Tracking Tool included in Annex.	After 2 nd PIR submitted to GEF	UNDP CO	Completed GEF Tracking Tool	
Terminal GEF Tracking Tool	N/A	N/A	Standard GEF Tracking Tool available at www.thegef.org Baseline GEF Tracking Tool included in Annex.	After final PIR submitted to GEF	UNDP CO	Completed GEF Tracking Tool	
Mid-term Review)	N/A	N/A	To be outlined in MTR inception report	Submitted to GEF same year as 3 rd PIR	<i>Independent evaluator</i>	Completed MTR	
Environmental and Social risks and management plans, as relevant.	N/A	N/A	Updated SESP and management plans	Annually	Project Manager UNDP CO	Updated SESP	

Annex C. Evaluation Plan

Evaluation Title	Planned start date Month/year	Planned end date Month/year	Included in the Country Office Evaluation Plan	Budget for consultants (US\$)	Other budget (e.g. travel, site visits etc.)	Budget for translation
Mid-term review	October 2019	December 2019	Yes	25,000	n/a	n/a
Terminal Evaluation	November 2021	February 2022	Yes	28,000	n/a	n/a
Total evaluation budget				53,000		

Annex D. GEF Tracking Tool

Special Notes: Projects need to report on all indicators that are included in their results framework

Reporting on lifetime emissions avoided

Lifetime direct GHG emissions avoided: Lifetime direct GHG emissions avoided are the emissions reductions attributable to the investments made **during the project's supervised implementation period**, totalled over the respective lifetime of the investments.

Lifetime direct post-project emissions avoided: Lifetime direct post-project emissions avoided are the emissions reductions attributable to the investments made outside the project's supervised implementation period, but supported by financial facilities put in place by the GEF project, totalled over the respective lifetime of the investments. These financial facilities will still be operational after the project ends, such as partial credit guarantee facilities, risk mitigation facilities, or revolving funds.

Lifetime indirect GHG emissions avoided (top-down and bottom-up): indirect emissions reductions are those attributable to the long-term outcomes of the GEF activities that remove barriers, such as capacity building, innovation, catalytic action for replication.

Please refer to the following references for Calculating GHG Benefits of GEF Projects.

[Manual for Energy Efficiency and Renewable Energy Projects](#)

[Revised Methodology for Calculating Greenhouse Gas Benefits of GEF Energy Efficiency Projects \(Version 1.0\)](#)

[Manual for Transportation Projects](#)

For LULUCF projects, the definitions of "lifetime direct and indirect" apply. Lifetime length is defined to be 20 years, unless a different number of years is deemed appropriate. For emission or removal factors (tonnes of CO₂eq per hectare per year), use IPCC defaults or country specific factors.

Section A. General Data

		At CEO Endorsement	
Project Title		Derisking Renewable Energy Investment	
GEF ID		9192	
GEF Agency		UNDP	
Agency Project ID		5490	
Country		Kazakhstan	
Region		ECA	
Date of Council/CEO Approval			Month DD, YYYY (e.g., May 13, 2014)
GEF Grant (US\$)		4,510,000	
Date of submission of the tracking tool			Month DD, YYYY (e.g., May 13, 2014)
Is the project consistent with the priorities identified in National Communications, Technology Needs Assessment, or other Enabling Activities (such as Technology Action Plans, Nationally Appropriate Mitigation Actions (NAMA) under the UNFCCC?		1	Yes = 1, No = 0

Section B. Quantitative Outcome Indicators

Target At CEO Endorsement

Indicator 1: Total Lifetime Direct and Indirect GHG Emissions Avoided (Tons CO2eq)		Identify Sectors, Sources and Technologies. Provide disaggregated information if possible. see Special Notes above
Lifetime direct GHG emissions avoided	460,000	Small scale renewable energy in rural and urban areas
Lifetime indirect GHG emissions avoided	1,800,000	(Bottom-up) Small scale renewable energy in rural and urban areas
	8,000,000	(Top-down) Small scale renewable energy in rural and urban areas
Indicator 2: Lifetime Energy Saved (Million Joules)		IEA unit converter: http://www.iea.org/stats/unit.asp) Fuel savings should be converted to energy savings by using the net calorific value of the specific fuel. End-use electricity savings should be converted to energy savings by using the conversion factor for the specific supply and distribution system. These energy savings are then totaled over the respective lifetime of the investments.
Indicator 3: Increase in Renewable Energy Capacity and Production		Disaggregate by type (Wind, Biomass, Geothermal, Hydro, solar, Photovoltaic, Marine power etc)
Increase in Installed RE capacity per technology (MW)	9.50	Wind, PV and solar thermal
Lifetime RE production per technology (MWh)	500,000.00	(IEA unit converter: http://www.iea.org/stats/unit.asp)
Indicator 4: Number of Users of low GHG systems (Number, of which female)		Identify Sector, describe the low GHG system and technologies and explain methodology for estimation
Indicator 5: Number of Hectares under Low GHG Management Practices (Ha.)		Identify source (conservation, avoided deforestation, afforestation/reforestation), type of low GHG Management Practice and describe methodology used for estimation

Indicator 6: Time Saved in adoption of low GHG technology (Percentage)		For technologies and practices to be supported under the project (i) estimate baseline time to deployment (without project support), (ii) estimate expected time to deployment with project support and (iii) calculate % of time saved.
Indicator 7: Volume of investment mobilized and leveraged by GEF for low GHG development (co-financing and additional financing) of which		Expected additional resources implies resources beyond co-financing committed at CEO endorsement.
Public		
Private		
Domestic		
External		
Indicator 8: Identify specific GHG reduction target (percent), if any, under any national, sectoral, local plans		Specify plan, area/sector (if subnational), and baseline from which reduction is expected

Section C. Qualitative Indicators

Indicator 9: Degree of support for low GHG development in policy, planning and regulations	Baseline Rating (1-10)	Target Rating (1-10)	Identify the policy/regulations (national, sectoral, City) relevant to and supported by the project and provide rating. Baseline indicates current status (pre-project), Target is the rating level that is expected to be achieved due to project support. For guidance for qualitative ratings (in comment) move cursor over box or right click to show comment.
National/Regional/Sectoral/City Plan	4	8	Policy and legislation for large-scale and small-scale renewables

Indicator 10: Quality of MRV Systems	Baseline Rating (1-10)	Target Rating (1-10)	Provide details of coverage of MRV systems - area, type of activity for which MRV is done, and of Reporting and Verification processes. Baseline indicates current status (pre-project), Target is the rating level that is expected to be achieved due to project support. For guidance for qualitative ratings (in comment) move cursor over box or right click to show comment.
Activity	1	7	MRV systems for small-scale urban and rural renewable energy including small wind, PV, biomass, biogas and solar thermal
Activity			
Indicator 11: Degree of strength of financial and market mechanisms for low GHG development	Baseline Rating (1-10)	Target Rating (1-10)	Provide details of the financial mechanisms and identify the sector and the type of low GHG technology or development activity it supports. Baseline indicates current status (pre-project), Target is the rating level that is expected to be achieved due to project support. For guidance for qualitative ratings (in comment) move cursor over box or right click to show comment.
	1	6	Financial mechanism to support on and off-grid small-scale renewable energy in urban and rural areas in Kazakhstan

Annex E. Terms of Reference for the Project Steering Committee, and Key Project Staff

1. Terms of Reference for the Project Steering Committee

I. Composition and organization:

The Project Steering Committee contains three roles, including (1) an executive: individual representing the project ownership to chair the group; (2) senior supplier: individual or group representing the interests of the parties concerned which provide funding and/or technical expertise to the project; and (3) senior beneficiary: individual or group of individuals representing the interests of those who will ultimately benefit from the project.

II. Specific responsibilities

1. Initiating a project:

- Agree on PM's responsibilities, as well as the responsibilities of the other members of the Project Management team;
- Delegate any Project Assurance function as appropriate;
- Review and appraise detailed Project Plan and AWP, including Atlas reports covering activity definition, quality criteria, issue log, updated risk log and the monitoring and communication plan.

2. Running a project:

- Provide overall guidance and direction to the project, ensuring it remains within any specified constraints;
- Address project issues as raised by the Project Manager;
- Provide guidance and agree on possible countermeasures/management actions to address specific risks;
- Agree on Project Manager's tolerances in the Annual Work Plan and quarterly plans when required;
- Review Combined Delivery Reports (CDR) prior to certification by the Implementing Partner;
- Appraise the Project Annual Review Report, make recommendations for the next AWP, and inform the Outcome Board about the results of the review.
- Review and approve end project report, make recommendations for follow-on actions;
- Provide ad-hoc direction and advice for exception situations when project manager's tolerances are exceeded;
- Assess and decide on project changes through revisions;

3. Closing a project:

- Assure that all Project deliverables have been produced satisfactorily;
- Review and approve the Final Project Review Report, including Lessons-learned;
- Make recommendations for follow-on actions to be submitted to the Outcome Board;
- Commission project evaluation (only when required by partnership agreement)
- Notify operational completion of the project to the Outcome Board.

III. Executive

The Executive is ultimately responsible for the project, supported by the Senior Beneficiary and Senior Supplier. The Executive's role is to ensure that the project is focused throughout its life cycle on achieving its objectives and delivering outputs that will contribute to higher-level outcomes. The Executive has to ensure that the project gives value for money, ensuring a cost-conscious approach to the project, balancing the demands of beneficiary and supplier. Specific Responsibilities (as part of the above responsibilities for the Project Steering Committee) include:

- Ensure that there is a coherent project organization structure and logical set of plans
- Set tolerances in the AWP and other plans as required for the Project Manager
- Monitor and control the progress of the project at a strategic level
- Ensure that risks are being tracked and mitigated as effectively as possible
- Brief Outcome Board and relevant stakeholders about project progress
- Organize and chair Project Steering Committee meetings.

IV. Senior Beneficiary

The Senior Beneficiary is responsible for validating the needs and for monitoring that the solution will meet those needs within the constraints of the project. This role represents the interests of all those who will benefit from the project, or those for whom the deliverables resulting from activities will achieve specific output targets. The Senior

Beneficiary role monitors progress against targets and quality criteria. Specific Responsibilities (as part of the above responsibilities for the Project Steering Committee) include:

- Ensure the expected output(s) and related activities of the project are well defined
- Make sure that progress towards the outputs required by the beneficiaries remains consistent from the beneficiary perspective
- Promote and maintain focus on the expected project output(s)
- Prioritize and contribute beneficiaries' opinions on Project Steering Committee decisions on whether to implement recommendations on proposed changes
- Resolve priority conflicts

The assurance responsibilities of the Senior Beneficiary are to check that:

- Specification of the Beneficiary's needs is accurate, complete and unambiguous
- Implementation of activities at all stages is monitored to ensure that they will meet the beneficiary's needs and are progressing towards that target
- Impact of potential changes is evaluated from the beneficiary point of view
- Risks to the beneficiaries are frequently monitored

V. Senior Supplier

The Senior Supplier represents the interests of the parties, which provide funding and/or technical expertise to the project (designing, developing, facilitating, procuring, implementing). The Senior Supplier's primary function within the Project Steering Committee is to provide guidance regarding the technical feasibility of the project. The Senior Supplier role must have the authority to commit or acquire supplier resources required. Specific Responsibilities (as part of the above responsibilities for the Project Steering Committee) include:

- Make sure that progress towards the outputs remains consistent from the supplier perspective
- Promote and maintain focus on the expected project output(s) from the point of view of supplier management
- Ensure that the supplier resources required for the project are made available
- Contribute supplier opinions on Project Steering Committee decisions on whether to implement recommendations on proposed changes
- Arbitrate on, and ensure resolution of, any supplier priority or resource conflicts

The supplier assurance role responsibilities are to:

- Advise on the selection of strategy, design and methods to carry out project activities
- Ensure that any standards defined for the project are met and used to good effect
- Monitor potential changes and their impact on the quality of deliverables from a supplier perspective
- Monitor any risks in the implementation aspects of the project

2. Terms of Reference for the Project Manager

I. Position Information	
Position Title:	Project Manager
SC range:	SB-4
Project Title/Department:	Derisking Renewable Energy Investment in Kazakhstan/Renewable Energy Unit
Duration of the service:	1 year (with possible extension subject to satisfactory performance)
Work status:	Full-time
Reports To:	UNDP Programme Officer
II. Background	
Under the supervision of UNDP Kazakhstan, the Project Manager (PM) manages the project implementation is responsible for overall assurance of the project	
III. Functions / Key Outputs Expected	
<p>Specific Responsibilities</p> <ul style="list-style-type: none"> • Ensure that there is a coherent project organization structure and logical set of plans • Approve and sign basic project and financial documents and other plans as required • Monitor and control the progress of the project at a strategic level • Ensure that risks are being tracked and mitigated as effectively as possible • Brief Project Steering Committee (PSC) and relevant stakeholders about project progress • Organize and chair Project Steering Committee meetings <p>Running the project</p> <ul style="list-style-type: none"> • Plan the activities of the project and monitor progress against the initial quality criteria; • Mobilize goods and services to initiative activities, including drafting TORs and work specifications; • Manage requests for the provision of financial resources by UNDP, using advance of funds, direct payments, or reimbursement using the IPSAS; • Manage and monitor the project risks as initially identified in the Project Document, submit new risks to PSC for consideration and decision on possible actions if required; update the status of these risks by maintaining the Project Risks Log; • Be responsible for managing issues and requests for change by maintaining an Issues Log; • Prepare the Quarterly Project Report (progress against planned activities, update on Risks and Issues, expenditures in UNDP format) and Quarterly Operational Report and submit the reports to the Project Assurance team; • Prepare the Annual Review Report (UNDP format) and Project Implementation Report (GEF format) and submit reports to the Project Assurance team and GEF; based on the ARR, prepare the Annual Work Plan (AWP) and Annual Plan of Activities and Procurement Plan for the project years; • Monitors the implementation of project components, analyses problems that hamper their implementation and takes appropriate measures to ensure timely delivery of required inputs and achievement of project-wide results; • Monitor financial resources and accounting to ensure accuracy and reliability of financial reports, including proper utilization of funds and delivery, budget revisions, availability of funds, reconciliation of accounts, establishment of internal control mechanisms. Acts as a focal point to liaise with auditors and ensures follow-up actions. Ensures the accuracy and reliability of financial information and reporting; • Sign annual CDRs with UNDP and the Implementing Partner national agency; • Monitors and facilitates advocacy and mass media outreach activities, writes success stories, newspapers coverage, PR campaigns; • Organize workshops, seminars and round tables to introduce project outputs to all stakeholders involved. Render support to related UNDP thematic activities such as publications, sharing of knowledge and group discussions; • Liaises with other UNDP and UNDP-GEF funded projects to implement possible synergies and reports to UNDP Programme Officer and NPC on conducted activities; • Undertake resource mobilization activities to be built on the project achievement that contribute to project scaling-up and replication <p>Closing the Project</p> <ul style="list-style-type: none"> • In cooperation with the UNDP CO and national project experts, develop a suitable project exit strategy during the last year of the project, and present it for approval to the UNDP Regional Center in Istanbul; • Ensure proper operational, financial and programmatic closure of the project; • Prepare Final Project Review Reports to be submitted to the PSC; • Identify follow-on actions and submit them for consideration to PSC; • Manage the transfer of project deliverables, documents, files, equipment and materials to national beneficiaries; • Prepare final CDR for signature by UNDP and the Implementing Partner. 	

IV. Competencies	
Corporate Competencies:	<ul style="list-style-type: none"> • Demonstrates commitment to UNDP’s mission, vision and values; • Displays cultural, gender, religion, race, nationality and age sensitivity and adaptability; • Demonstrating/safeguarding ethics and integrity; • Demonstrate corporate knowledge and sound judgment; • Self-development, initiative-taking; • Acting as a team leader and facilitating team work; • Facilitating and encouraging open communication in the team, communicating effectively; • Creating synergies through self-control; • Managing conflict; • Learning and sharing knowledge and encourage the learning of others; • Informed and transparent decision making
Functional Competencies:	<p><i>Communications and Networking</i></p> <ul style="list-style-type: none"> • Has excellent oral communication skills and conflict resolution competency to manage inter-group dynamics and mediate conflicting interests of varied actors; • Has excellent written communication skills, with analytic capacity and ability to synthesize project outputs and relevant findings for the preparation of quality project reports; • Maturity and confidence in dealing with senior and high ranking members of national and international institutions, government and non-government. <p><i>Knowledge Management and Learning</i></p> <ul style="list-style-type: none"> • Promotes a knowledge sharing and learning culture in the team through leadership and personal example; • Actively mentoring project staff under her/his supervision; • Leadership and Self-Management; • Focuses on result for the client and responds positively to feedback; • Consistently approaches work with energy and a positive, constructive attitude; • Remains calm, in control and good humored even under pressure; • Competent in leading team and creating team spirit, stimulating team members to produce quality outputs in a timely and transparent fashion. <p><i>Development and Operational Effectiveness</i></p> <ul style="list-style-type: none"> • Ability to organize and complete multiple tasks by establishing priorities; • Ability to handle a large volume of work possibly under time constraints. <p><i>Job Knowledge/Technical Expertise</i></p> <ul style="list-style-type: none"> • Understands the main processes and methods of work regarding to the position • Strives to keep job knowledge up-to-date through self-directed study and other means of learning; • Demonstrates good knowledge of information technology and applies it in work assignments. <p><i>Leadership and Self-Management</i></p> <ul style="list-style-type: none"> • Builds strong relationships with clients, focuses on impact and result for the client and responds positively to feedback; • Consistently approaches work with energy and a positive, constructive attitude; • Demonstrates good oral and written communication skills.
V. Qualifications Requirements	
Education:	PhD degree in the following areas: engineering, environmental science, international relations, business administration or other relevant fields.
Experience:	At least 10 of years of relevant experience. Practical experience in project management. Working experience in international organizations is an advantage.
Language Requirements:	Excellent command of spoken and written English, Kazakh and Russian are essential
Others:	<ul style="list-style-type: none"> • Sound experience in the project management associated with climate change adaptation, environment protection and corresponding sustainable development and corresponding UN conventions and treaties; • Knowledge of and experience in gender mainstreaming is an asset;

	<ul style="list-style-type: none"> • Proven experience in working and collaborating with governments; • Initiative and strong leadership skills; • Result and client-orientations; • Strong analytical, communication, writing, presentation and communication skills; • Excellent interpersonal and cross cultural communication skills, ability to work in a team and to work under pressure and with tight deadlines, ethics and honesty; • Ability to use information and communication technology as a tool and resource; • Willingness to travel as appropriate
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3. Terms of Reference for the Task Manager: Large-scale renewable energy

I. Position Information	
Position Title:	Large-scale renewable energy Task Manager
Type:	SB-3
Project Title/Department:	Derisking Renewable Energy Investment in Kazakhstan
Duration of the service:	Full-time 1 year (with possible extension subject to satisfactory performance)
Duty station:	Astana
Reports to:	Project Manager
II. Background information	
<p>Under the guidance and supervision of the Project Manager, the Task Manager provides operational and thematic services ensuring high quality, accuracy and consistency of work. The Task Manager works in close collaboration with the Government counterparts, project, operations, and Programme’s staff in the CO to exchange information and ensure consistent service delivery, and undertake day-to-day responsibility for operational and thematic support services for the satisfactory achievement of the project component outputs.</p>	
III. Functions / Key Outputs Expected	
<p><i>Thematic functions:</i> Provide technical and administrative assistance for delivery of the Component 1 of the Project including the following outputs:</p> <p>Output 1.1 Technical, economic, financial, environmental and social analysis carried out to support the Ministry of Energy and other stakeholders in the design and implementation of appropriate policies, programmes and regulations, including development of briefings for decision-makers</p> <p>Activity 1.1.1: Implement financial and economic analyses for cost-effective and coordinated design of policy and financial derisking instruments to achieve the 2030 target.</p> <p>While the DREI analysis represents a first level analysis it does not take into account subsidies present in the traditional energy sector. These subsidies are not easily quantified, but they can be expected to have a significant impact on the economic costs of the traditional energy sector that has not been taken into account. Further work on this will allow a clearer picture to emerge of the real costs of traditional energy and renewable alternatives.</p> <p>Activity 1.1.2: Develop improvements in the methodology for setting and reviewing the feed in tariff</p> <p>Activity 1.1.3: Develop analysis and recommendations on land allocation rules and procedures to address short-term / long-term needs (as reflected in the 1 July 2016 Land Code)</p> <p>Activity 1.1.4: Develop technical rules for renewables, including analyzing and providing argumentation related to the new obligation on solar PV operators to install and operate batteries at the request of the system operator for use of batteries for PV</p> <p>Activity 1.1.5: Develop approaches and recommendations on the participation of conventional power producers in the renewable energy market (i.e. when acquiring renewable energy power plants)</p> <p>Activity 1.1.6: Carry out analytical and legal work to address the long-term creditworthiness of the Settlement Centre</p> <p>Activity 1.1.7: Develop recommendations on a guarantee scheme for PPAs</p> <p>Activity 1.1.8: Implement analysis of payment reflows and risk exposures under the FiT and auction models</p> <p>Activity 1.1.9: Implement analysis and guidance on approaches to address currency risk through, for instance, partial indexation</p> <p>Output 1.2 Capacity building of key stakeholders through coaching and training seminars / study tours</p> <p>Activity 1.2.1: Carry out training needs assessment and provide training for local staff-members on large-scale renewable energy development issues.</p> <p>Activity 1.2.2: Organise regular information exchange events, conferences, workshops and seminars on large-scale renewable energy issues.</p>	

Operational functions:

1. Contribution to Inception Phase, Periodic Review of Project Implementation and Advice on Improvement

- Contribute to the project inception phase, develop inception report and attend inception workshop;
- Coordinate with the PM and team in order to monitor progress, assist in planning, and identify key technical problems (if any) and means for solving them;
- Participate, when feasible, in Project Steering Committee Meetings and other relevant project meetings;
- Assist in capturing the key lessons and developing a replication plan for other regions and communities in Kazakhstan. As part of the replication strategy, assist in developing replication materials for wider dissemination and application of project results and lessons learned;
- In cooperation with the project team and UNDP CO, develop a suitable project exit strategy, and present it for approval to the PSC Meeting.

2. Assistance in Planning, Staff Recruitment, Monitoring and Evaluation

- Provide support and advice for preparation or revision of key planning and evaluation documents such as the project Annual Plan of Actions (APAs), Annual Work Plan (AWPs), Project Implementation Reviews (PIRs), progress reports, monitoring and review reports etc.;
- Assist in the development of relevant Terms of References and mobilization of qualified national and international experts and organizations needed to provide specific consultancy services;
- Support Project Manager in the preparation and implementation of the Mid-Term and Terminal Evaluations (TORs, selection of appropriate candidates, accompaniment of field missions if and when required, discussion with evaluators, etc.).

IV. Recruitment Qualifications

Education:	Advanced degree (master's level, equivalent or higher) in the field of energy, environment or energy engineering.
Experience:	At least 10 years of practical experience in: <ul style="list-style-type: none">• Development of large-scale RES policy analysis and design;• Provision of advisory services to large-scale renewable energy projects• Project management and implementation to ensure that the overall technical direction of the project is maintained and flexibility adapted to meet the practical challenges faced during the implementation of the project;• Provision of technical guidance on implementation and completion of the key project components/activities, inputs on key technical decisions at strategic moments in the project implementation;• Monitoring and evaluation, results reporting and development of the project implementation reports; development of the project intervention strategies, management responses as per results of evaluations.
Language Requirements:	Excellent written and spoken Russian language, English and Kazakh are essential. Excellent analytical and presentation skills
Others:	Good understanding of local policies and practices in energy sector. Outstanding time-management, organizational and interpersonal skills.

4. Terms of Reference for the Task Manager: Small-scale renewable energy development

I. Position Information	
Position Title:	Small-scale renewable energy Task Manager
Type:	SB-3
Project Title/Department:	Derisking Renewable Energy Investment in Kazakhstan
Duration of the service:	Full-time
Duty station:	1 year (with possible extension subject to satisfactory performance)
Reports to:	Astana
	Project Manager
II. Background information	
Under the guidance and supervision of the Project Manager, the Task Manager provides operational and thematic services ensuring high quality, accuracy and consistency of work. The Task Manager works in close collaboration with the Government counterparts, project, operations, and Programme's staff in the CO to exchange information and ensure consistent service delivery, and undertake day-to-day responsibility for operational and thematic support services for the satisfactory achievement of the project component outputs.	

III. Functions

Thematic functions: Provide technical and administrative assistance for delivery of the Component 2 and 3 of the Project including the following outputs:

Component 2: Renewable Energy for Life: Policy Derisking

Outcome 2: Appropriate policies, programmes and capacities are in place to reduce risk and attract investment in small-scale (on-grid and off-grid) renewables

Output 2.1 Appropriate policies, programmes and regulations for on- and off-grid small-scale renewables designed and implemented

Activity 2.1.1: Design and implement appropriate policies, programmes and regulations: adoption of national and regional targets for small-scale RE (addressing DREI power market risks); regulations for small RES (i.e. net-metering policy) and application of the Feed in Tariff for such projects (also addressing DREI power market risks); reform of subsidy systems to stimulate renewable markets better, without neglecting local content objectives (addressing DREI financial sector risks); policies, targets and regulations to promote RES-based heat generation and integration of RES in building design.

Activity 2.1.2: Develop and recommend improvements for small on-grid RE approval, permits and grid connection (addressing DREI permits risks): streamlined and simplified approval procedures for permits, grid-connection procedures and contracts with grid operator.

Activity 2.1.3: Organise and implement training to build capacity of local expert to develop policy interventions for small-scale renewable energy development.

Output 2.2 Functioning MRV for the small-scale renewables sector

Activity 2.2.1: Review the current practice of international MRV systems and requirements for improving existing MRV practices.

Activity 2.2.2: Establish an MRV system of international standard for regular measurement, reporting, and verification of relevant indicators for small-scale renewable sector.

Activity 2.2.3: Propose appropriate financial and institutional arrangements for the MRV system for small-scale renewable sector in Kazakhstan.

Activity 2.2.4: Design training materials to support operation of the MRV system.

Output 2.3 Media campaigns and training for suppliers / developers to promote and market small-scale renewables in their target markets

To address the identified DREI social acceptance risks, the project will carry out awareness raising activities focused on building the profile of small-scale renewables and reliable suppliers and designers.

Activity 2.3.1: Consult with stakeholders and assess the types of intervention required to achieve optimum awareness for on and off-grid small-scale developments.

Activity 2.3.2: Develop the media plan including the scope of the media campaign, interventions required, human, financial and technical resources needed to support implementation of the plan.

Activity 2.3.3: Plan and execute awareness raising interventions in on- and offline media as per developed media plan.

Activity 2.3.4: Facilitate information exchange via organisation of targeted training and workshops including inter alia for small-scale equipment suppliers.

Output 2.4 Functioning and enforced quality control system in place for small-scale technology

To address the identified DREI resource and technology risks (and indirectly the labour risks), the project will carry out awareness raising activities focused on building the profile of small-scale renewables and reliable suppliers and designers.

Activity 2.4.1: Arrange consultations with producers, sellers, buyers, users and/or regulators of small-scale renewable energy equipment and facilitate a dialogue on technology standards.

Activity 2.4.2: Develop proposals on small-scale technology standards.

Activity 2.4.3: Establish and maintain small-scale technology platform, which includes information on small-scale technologies and quality and performance standards.

Activity 2.4.4: Develop appropriate institutional and organizational arrangements for monitoring and enforcing quality standards.

Activity 2.4.5: Organize and implement relevant training to develop skills for support of quality control system.

Component 3: Renewable Energy for Life: Financial Derisking and Incentives

Outcome 3: Sustainable business models and financial mechanisms to support implementation for investment in small-scale urban and rural RES solutions in place

Output 3.1 Financial and business models for small-scale renewables are developed and piloted

Activity 3.1.1: Review international practices on financial and business models for support of small-scale renewable energy projects.

Activity 3.1.2: Analyse existing markets for small-scale renewables, opportunities and gaps for support of small-scale renewable energy projects.

Activity 3.1.3: Design appropriate business and financial models for small-scale renewable energy developments tailored for existing markets in Kazakhstan.

Activity 3.1.4: Develop standard supporting documents for mainstreaming small-scale renewables developments.

Output 3.2 Appropriate financial instruments created and piloted

Activity 3.2.1: Arrange consultations and lead consultations including inter alia with local financial institutions, banks, development finance institutions, institutional investors, and others to identify and refine plans to develop financial de-risking instruments.

Activity 3.2.2: Support creation of an enabling framework that provides incentives for small-scale developers and developing a financial instrument ready for submission to the Government.

Activity 3.2.3: Arrange stakeholder consultation to develop practical strategies to address first-mover risks for small-scale renewable energy projects.

Activity 3.2.4: Develop eligibility criteria for incentive payments including the project type to take into account the different economics of the projects and their relevant technical parameters, and environmental and social safeguarding.

Activity 3.2.5: Facilitate adoption of financial de-risking measures for small-scale renewable energy developments.

Activity 3.2.6: Monitor implementation of the financial mechanism including environmental performance and compliance with agreed environmental and social safeguards.

Output 3.3 Capacity of local financial institutions to support small-scale renewables enhanced

Activity 3.3.1: Consult with stakeholders, including with local financial institutions and banks, and beneficiaries to determine priorities for training.

Activity 3.3.2. Deliver training for 3 local financial institutions. Training will include technical and financial aspects of small-scale renewables and environmental and social safeguards.

Output 3.4 Investments mobilised for small-scale renewable energy projects

Operational functions:

1 Contribution to Inception Phase, Periodic Review of Project Implementation and Advice on Improvement

- Contribute to the project inception phase, develop inception report and attend inception workshop;
- Coordinate with the PM and team in order to monitor progress, assist in planning, and identify key technical problems (if any) and means for solving them;
- Participate, when feasible, in Project Steering Committee Meetings and other relevant project meetings;
- Assist in capturing the key lessons and developing a replication plan for other regions and communities in Kazakhstan. As part of the replication strategy, assist in developing replication materials for wider dissemination and application of project results and lessons learned;
- In cooperation with the project team and UNDP CO, develop a suitable project exit strategy, and present it for approval to the PSC Meeting.

2. Assistance in Planning, Staff Recruitment, Monitoring and Evaluation

- Provide support and advice for preparation or revision of key planning and evaluation documents such as the project Annual Plan of Actions (APAs), Annual Work Plan (AWPs), Project Implementation Reviews (PIRs), progress reports, monitoring and review reports etc.;
- Assist in the development of relevant Terms of References and mobilization of qualified national and international experts and organizations needed to provide specific consultancy services;
- Support Project Manager in the preparation and implementation of the Mid-Term and Terminal Evaluations (TORs, selection of appropriate candidates, accompaniment of field missions if and when required, discussion with evaluators, etc.).

IV. Recruitment Qualifications	
Education:	Advanced degree (master's level, equivalent or higher) in the field of energy, environment or energy engineering.
Experience:	At least 10 years of practical experience in: <ul style="list-style-type: none"> • Provision of advisory services in the field of the small-scale RES policy and finance • Project management and implementation including provision of the overall technical guidance to the project; • Provision of technical guidance on implementation and completion of the key project components/activities, inputs on key technical decisions at strategic moments in the project implementation; • Monitoring and evaluation, results reporting and development of corrective actions and management response as per results of evaluations.
Language Requirements:	Excellent written and spoken Russian language, English and Kazakh are essential. Excellent analytical and presentation skills.
Others:	Good understanding of local policies and practices in on and off-grid energy sector. Outstanding time-management, organizational and interpersonal skills.

5. Terms of Reference for the Administrative and Financial Assistant

I. Position Information	
Position Title:	Administrative and Financial Assistant
SC range:	SB-2
Project Title:	Derisking Renewable Energy Investment in Kazakhstan/ Renewable Energy Unit
Duration of the service:	1 year (with possible extension subject to satisfactory performance)
Work status	Full-time
Reports To:	Project Manager
II. Background	
Under direct supervision of the Project Manager, Administrative and Financial Assistant is fully responsible for operational and programmatic management of the project according to the project document, UNDP and GEF corporate rules and procedures and for fulfilling but not limiting the following functions:	
<ul style="list-style-type: none"> • Bear responsibilities for logistics, procurement, finance and recruitment for the project, in accordance with corporate UNDP rules and regulations; • Prepare all financial and administrative documents related to the project implementation; • Develop quarterly and annual budget plans for recruitment of personnel; maintain financial records and monitoring systems to record and reconcile expenditures, balances, payments and other data for day-to-day transaction and reports; • Advise and assist Project staff, experts and consultants on all respects of allowances, salary advances, travel claims and other financial and administrative matters, and calculate and authorize payments due for claims and services; • Prepare detailed cost estimates and participates in budget analysis and projections as required to handle all financial operations of the project office and reconcile all accounts in required time frame; • Maintain, update and transmit inventory records of non-expendable equipment in accordance with UNDP rules; • Perform cash custodian's duties being primarily responsible for project's cash disbursements and maintain project's petty cash book and payrolls related to the regional offices; • Ensure leave monitoring of project staff, check the accuracy and proper completion of monthly leave reports; • Analyze the potential problems concerning administrative-financial issues and take respective measures to provide adequate project's resources in time for implementation of the project activities; • Define the cost-effective measures for optimal use of resources of the project; • Ensure full compliance of administrative and financial processes and financial records with UNDP and GEF related rules, regulations, policies and strategies; • Encourage awareness of and promotion of gender equality among project staff and partners; • Perform other duties related to personnel, administrative and financial issues of project as required 	
IV. Competencies	
Corporate Competencies:	<ul style="list-style-type: none"> • Demonstrates commitment to UNDP's mission, vision and values; • Displays cultural, gender, religion, race, nationality and age sensitivity and adaptability
Functional Competencies:	<ul style="list-style-type: none"> • Fundamental knowledge of processes, methods and procedures; • Understands the main processes and methods of work regarding to the position; • Possesses basic knowledge of organizational policies and procedures relating to the position and applies them consistently in work tasks;

	<ul style="list-style-type: none"> • Demonstrates good knowledge of information technology and applies it in work assignments; • Presentation of information on best practices in organizational change; • Demonstrates ability to identify problems and proposes solutions
Core Competencies:	<ul style="list-style-type: none"> • Demonstrating/safeguarding ethics and integrity; • Demonstrate corporate knowledge and sound judgment; • Self-development, initiative-taking; • Acting as a team player and facilitating team work; • Facilitating and encouraging open communication in the team, communicating effectively; • Creating synergies through self-control; • Managing conflict; • Learning and sharing knowledge and encourage the learning of others. Promoting learning and knowledge management/sharing is the responsibility of each staff member; • Informed and transparent decision-making.
V. Qualifications Requirements	
Education:	Bachelor degree in any of the following areas: Finance, Economics, Management, Environmental sciences, International Relations, or any related field.
Experience:	At least 2-3-years relevant experience. Working experience in international organizations is an advantage.
Language Requirements:	Excellent command of spoken and written English, Kazakh and Russian are essential
Others:	Strong financial and administrative skills, result and client-orientation, ability to work in a team; Ability to work under pressure and with tight deadlines, ethics and honesty; Ability to use information and communication technology as a tool and resource; Experience in handling web-based management systems; Ability to handle multiple tasks simultaneously and ability to prioritize

6. Terms of Reference for the Small-scale renewable energy analyst/Assistant to small-scale renewable energy Task Manager

I. Position Information	
Position Title:	Small-scale renewable energy analyst
SC range:	SB-2
Project Title:	Derisking Renewable Energy Investment in Kazakhstan
Duration of the service:	1 year (with possible extension subject to satisfactory performance)
Work status	Full-time
Reports To:	Small-scale renewable energy Task Manager
II. Background	
Under direct supervision of the Task Manager for small-scale renewable energy, Analyst is responsible for assistance with operational and programmatic management of the Project and facilitating delivery of the Component 2 and 3 according to the project document, UNDP and GEF corporate rules and procedures and for fulfilling but not limiting the following functions:	
<ul style="list-style-type: none"> • Monitor and support partner activities in the field of small-scale development and inform small-scale Task Manager on relevant developments; • Undertake analysis and research of the market with regard to development of small-scale renewable energy and prepare reports and briefings. • Support and ensure quality control of preparation of briefs, background papers, analysis of reports and other substantive information on small-scale developments; • Coordinate inputs in briefing notes from all relevant partners and prepare notes from the formal meetings • Create and maintain appropriate spreadsheets and documentation to track/support implementation of Component 2 and 3 of the Project, ensuring that proper records are maintained; • Identify and synthesize best practices and lessons learned directly linked to outcomes of Component 2 and 3. 	
IV. Competencies	
Corporate Competencies:	<ul style="list-style-type: none"> • Demonstrates commitment to UNDP's mission, vision and values; • Displays cultural, gender, religion, race, nationality and age sensitivity and adaptability

Functional Competencies:	<p>Results-Based Programme Development and Management:</p> <ul style="list-style-type: none"> • Contributes to delivery of the results through primary research and analysis • Assesses project performance to identify success factors and incorporates best practices into project work; • Researches linkages across programme activities to identify critical points of integration; • Monitors specific stages of project implementation. <p>Facilitating dialogue on small-scale renewable energy:</p> <ul style="list-style-type: none"> • Maintaining a network of contacts • Analyzes and selects materials for strengthening strategic alliances with partners and stakeholders. <p>Promoting Organizational Learning and Knowledge Sharing: Basic research and analysis</p> <p>Job Knowledge/Technical Expertise: Fundamental knowledge of renewable energy sector</p>
Core Competencies:	<ul style="list-style-type: none"> • Demonstrating/safeguarding ethics and integrity; • Demonstrate corporate knowledge and sound judgment; • Self-development, initiative-taking; • Acting as a team player and facilitating team work; • Facilitating and encouraging open communication in the team, communicating effectively; • Creating synergies through self-control; • Managing conflict; • Learning and sharing knowledge and encourage the learning of others. Promoting learning and knowledge management/sharing is the responsibility of each staff member; • Informed and transparent decision-making.
V. Qualifications Requirements	
Education:	Bachelor degree in any of the following areas: Energy studies, Engineering,, Environmental sciences, or any related field.
Experience:	At least 2-3-years relevant experience. Working experience in international organizations is an advantage.
Language Requirements:	Excellent command of spoken and written English and Russian are essential
Others:	<ul style="list-style-type: none"> • Familiarity with small PV and wind technologies and engineering economics • Excellent written and verbal communication skills • Strong organizational skills, ability to track and juggle multiple tasks • Good consultation and collaboration skills

7. Terms of Reference for a Consultant to Develop a Detailed Report on Financial Instruments

I. Position Information	
Position Title: Project Title: Duration of the service: Work status Reports To:	Consultant to Develop a Detailed Report on Financial Instruments Derisking Renewable Energy Investment in Kazakhstan 1 year (with possible extension subject to satisfactory performance) Part-time Project Manager
II. Background	
UNDP's rationale in using financial instruments in its climate change and energy projects is to maximize development impact. A key objective for UNDP when using financial instruments is to ensure the most cost-effective financial instrument selection. UNDP's comparative advantage is in policy derisking instruments, providing technical assistance and capacity building. UNDP can partner with national and or development banks to provide financial instruments, either in the form of financial derisking instruments (non-grant instruments, such as guarantees) and/or direct financial incentives (grant instruments, such as subsidies and rebates). Please see www.undp.org/DREI for further information on combining these different instruments.	

UNDP is currently putting in place a new UNDP corporate regime for the use of financial instruments, with updated policies and guidance, and increased monitoring of compliance. This includes a dedicated quality assurance function in UNDP-GEF HQ, providing guidance that draws on good practice in financial instrument design and implementation. An important element of this guidance is the front-loading of the design of financial instruments, in order that clear design recommendations and specifications are identified early. This in turn enables the financial instrument to be commissioned earlier in project implementation.

III. Objective and functions

The objective of the consultancy will be to develop a detailed report on the design of the project's financial instrument(s). This report will address each design issue in turn, setting out any findings, recommendations and considerations for a financial instrument.

The UNDP-GEF financial instruments HQ team in New York can provide guidance and feedback on the outputs of the consultancy. The consultancy will be structured under various activities to formulate a formal report on what financial instrument is to be implemented, as well as details on how it will be operationalized.

This report will be based on: (i) a desk-review of available literature, (ii) consultations with relevant stakeholders, and (iii) the considerations and insights of the service provider's team. The service provider will document consultations with stakeholders and support interaction with those stakeholders as partners to the financial instrument.

The report on financial instruments should have the following sections: (1) executive summary, (2) financial instrument selection, (3) financial partner, (4) financial instrument design.

IV. Competencies

Corporate Competencies:	<ul style="list-style-type: none"> • Demonstrates commitment to UNDP's mission, vision and values; • Displays cultural, gender, religion, race, nationality and age sensitivity and adaptability
Core Competencies:	<ul style="list-style-type: none"> • Demonstrating/safeguarding ethics and integrity; • Demonstrate corporate knowledge and sound judgment; • Self-development, initiative-taking; • Acting as a team player and facilitating team work; • Facilitating and encouraging open communication in the team, communicating effectively; • Creating synergies through self-control; • Managing conflict; • Learning and sharing knowledge and encourage the learning of others. Promoting learning and knowledge management/sharing is the responsibility of each staff member; • Informed and transparent decision-making.

V. Qualifications Requirements

Education:	<ul style="list-style-type: none"> • Bachelor's or equivalent degree in finance, economics, international affairs, or other related field. Master's or equivalent degrees will be at an advantage
Experience:	<ul style="list-style-type: none"> • At least 5 years of professional experience focused on finance. • Experience with preparation and implementation of public financial instruments to promote private sector investment in low-carbon energy. Specific experience with UNDP and GEF projects will be an advantage • Proven experience with financial modelling • Experience working in developing country contexts preferred • Experience working with multilateral organizations and the UN system preferred • Knowledge of MS Word, Excel and email communication software
Language Requirements:	<ul style="list-style-type: none"> • Fluency in English required. Excellent drafting skills required
Others:	<ul style="list-style-type: none"> • Familiarity with small PV and wind technologies and engineering economics • Excellent written and verbal communication skills • Strong organizational skills, ability to track and juggle multiple tasks • Good consultation and collaboration skills

Annex F. Social and Environmental Screening

The completed template, which constitutes the Social and Environmental Screening Report, must be included as an annex to the Project Document. Please refer to the [Social and Environmental Screening Procedure](#) and [Toolkit](#) for guidance on how to answer the 6 questions.

Project Information

Project Information	
1. Project Title	Derisking Renewable Energy Investment
2. Project Number	5490
3. Location (Global/Region/Country)	Kazakhstan

Part A. Integrating Overarching Principles to Strengthen Social and Environmental Sustainability

QUESTION 1: How Does the Project Integrate the Overarching Principles in order to Strengthen Social and Environmental Sustainability?

Briefly describe in the space below how the Project mainstreams the human-rights based approach

Consultations have been undertaken during project identification to determine the stakeholders and their roles during project implementation. These consultations will continue throughout the project cycle. Stakeholders include the Government, the private sector, international organisations and multilateral development bodies, and civil society organisations. These stakeholders have been and will continue to be consulted with regard to various components of the project, such as development of policy and financial derisking tools for small and large-scale RES, developing business and financial models to support small-scale RES, development and implementation of the media campaign, creating awareness and building capacity of the commercial banks to perform due diligence and financial assessment of small-scale RES projects. A mechanism to deal with grievances and other potential conflict issues will be set up consistent with the Social and Environmental Standards of UNDP (2015).

Briefly describe in the space below how the Project is likely to improve gender equality and women's empowerment

The project will involve gender mainstreaming opportunities in the establishment of MRV, where users will be trained on data collection and analysis; training and awareness-raising for commercial banks on performing due diligence for small-scale RES projects, and development of technology database and a mechanism for continuous update and systematic enforcement. The project will involve an in-country gender expert in developing gender-disaggregated data and indicators to ensure equitable gender representation.

Briefly describe in the space below how the Project mainstreams environmental sustainability

Mainstreaming environmental sustainability in the project involves the following: (i) establishment of a measurement, reporting and verification system to promote investment in RES in urban and rural sector; (ii) development of policy and financial derisking instruments; (iii) creating awareness and training domestic commercial banks; and (iv) creating business models to rural and urban small-scale developers. The overall outcome of these interventions will be provision of clean and reliable energy supply and direct reductions in GHG emissions of 0.46 Mt of CO_{2eq}.

Part B. Identifying and Managing Social and Environmental Risks

<p>QUESTION 2: What are the Potential Social and Environmental Risks? <i>Note: Describe briefly potential social and environmental risks identified in Attachment 1 – Risk Screening Checklist (based on any “Yes” responses). If no risks have been identified in Attachment 1 then note “No Risks Identified” and skip to Question 4 and Select “Low Risk”. Questions 5 and 6 not required for Low Risk Projects.</i></p>	<p>QUESTION 3: What is the level of significance of the potential social and environmental risks? <i>Note: Respond to Questions 4 and 5 below before proceeding to Question 6</i></p>			<p>QUESTION 6: What social and environmental assessment and management measures have been conducted and/or are required to address potential risks (for Risks with Moderate and High Significance)?</p>
<p>Risk Description</p>	<p>Impact and Probability (1-5)</p>	<p>Significance (Low, Moderate, High)</p>	<p>Comments</p>	<p>Description of assessment and management measures as reflected in the Project design. If ESIA or SESA is required note that the assessment should consider all potential impacts and risks.</p>
<p>Risk 1 (Principle 1/2): The project may discriminate against women in relation to access to opportunities and benefits</p>	<p>I = 3 P = 1</p>	<p>Low</p>	<p>Kazakhstan’s society is still strongly influenced by traditional gender roles and norms that designate women responsible for maintaining the home and childcare. Women are not regarded as decision-makers in the public sphere, and such traditional views lead women to accept discrimination as a “normal” part of life.</p>	<ul style="list-style-type: none"> • The project will analyse any gender-based differences in access to financing and capacity building, and will involve an in-country gender expert in developing gender-disaggregated data and indicators to ensure an equitable gender representation in the selection process for financing, focus group discussions and training. • Capacity building opportunities incorporated in the project that will ensure female participation include: establishment of RES technology MRV where users will be trained on data collection and analysis; training and awareness-raising for commercial banks; etc.
<p>Risk 2 (Principle 1): Potential for excluding affected stakeholders from participation</p>	<p>I = 2 P = 1</p>	<p>Low</p>	<p>Inadequate and/or lack of consultation may exclude stakeholders such as women’s committees, citizens’ organisations and NGOs in providing inputs on to development of policy and financial derisking tools.</p>	<ul style="list-style-type: none"> • Consultations have been undertaken during project identification to determine the project stakeholders and their roles during project implementation. These consultations will continue throughout the project cycle. Consultations on various components of the project will be designed to be gender-sensitive, inclusive and responsive to the needs of the stakeholders identified. A mechanism to deal with potential conflict issues during implementation has been incorporated in the project design.

Risk 3 (Standard 1): Secondary or consequential development activities which could lead to adverse social and environmental effects	I=4 P=2	Moderate	Risk relates to potential investments that may require construction works	<ul style="list-style-type: none"> • Potential environmental and social risks mainly relate to operation and management of renewable energy systems, although sitting of the works may also involve moderate impacts. • ESMP will provide specific guidance to be followed consistent with any existing environmental and social impact studies of working sites (to be identified)
Risk 4 (Standard 3): Small-scale RES installations may pose safety risks to communities	I = 3 P = 2	Moderate	Workers may not have the right experience and training on proper installation and management of RES facilities.	<ul style="list-style-type: none"> • Only legally registered contractor(s) will be allowed to do installation. Proof of experience and track record will be required from the contractor(s) prior to award of the retrofit work. • Small-scale RES developers/owners will be encouraged to conduct orientation and training. • The technologies selected: solar hot water heating, small PV systems and hybrid solar /wind have low associated environmental risks
Risk 5 (Standard 2): Vulnerability to climate change	I = 2 P = 1	Low	An increase in temperature will reduce demand for heating but increase demand for cooling. Since cooling is usually electrical and electricity is more costly than natural gas, this may increase demand for retrofits.	<ul style="list-style-type: none"> • While average winter temperatures are projected to increase (since the 1961-1990 average winter temperature was -5.3°C); even with a significant increase in temperature there will still be a large need for heating. • Data from the MRV component will provide insight into the impacts of warmer weather. This will be valuable for future activities but overall impacts on borrowing are beyond the scope of this project.
Risk 6 (Standard 3): Generation of waste from RES installations	I = 3 P = 1	Low	Removing roof elements and replacing existing hot water pipes, as part of retrofit works will generate waste.	<ul style="list-style-type: none"> • Recipients of financing for RES will be required to dispose of the waste generated from civil works following the applicable regulations. Management of waste/construction debris will be part of the conditions in granting the funds and for awarding the civil works to the contractor. This will be ensured through the eligibility criteria and environmental / social safeguards built into the financial mechanism and monitored through activities 3.2.4 and 3.2.6
Risk 7 (Standard 5): Economic displacement related to access restrictions	I = 3 P = 2	Moderate	Project could possibly result in economic displacement (e.g. loss of assets or access to resources due to land acquisition or access restrictions – even in the absence of physical relocation)	<ul style="list-style-type: none"> • Potential of economic displacement will be reviewed for each investment made. • ESMP will provide specific guidance to be followed consistent with any existing environmental and social impact studies of working sites (to be identified)

QUESTION 4: What is the overall Project risk categorization?		
Select one (see SESP for guidance)	Comments	
<i>Low Risk</i>	<input type="checkbox"/>	
<i>Moderate Risk</i>	<input checked="" type="checkbox"/>	Eliminating policy, financial, market and technical barriers, and creating an enabling environment for investments in renewable energy, include activities that have no risks of adverse social or environmental impacts. However, actual renewable energy projects may cause impacts related to siting and construction works. Further, there may be generation of waste, noise and visual pollution, potential discrimination of women to access financing, etc. that are limited in scale and temporary.
<i>High Risk</i>	<input type="checkbox"/>	
QUESTION 5: Based on the identified risks and risk categorization, what requirements of the SES are relevant?		
Check all that apply	Comments	
<i>Principle 1: Human Rights</i>	<input checked="" type="checkbox"/>	Executing Agency may not have the capacity to meet human rights obligations to the project
<i>Principle 2: Gender Equality and Women's Empowerment</i>	<input checked="" type="checkbox"/>	Potential to discriminate women in consultations and in access to project benefits and opportunities
<i>1. Biodiversity Conservation and Natural Resource Management</i>	<input checked="" type="checkbox"/>	Secondary or consequential development activities which could lead to adverse social and environmental effects
<i>2. Climate Change Mitigation and Adaptation</i>	<input checked="" type="checkbox"/>	Vulnerability to climate change
<i>3. Community Health, Safety and Working Conditions</i>	<input checked="" type="checkbox"/>	Renewable energy projects may cause impacts related to siting and construction works
<i>4. Cultural Heritage</i>	<input type="checkbox"/>	
<i>5. Displacement and Resettlement</i>	<input checked="" type="checkbox"/>	
<i>6. Indigenous Peoples</i>	<input type="checkbox"/>	
<i>7. Pollution Prevention and Resource Efficiency</i>	<input type="checkbox"/>	

Final Sign Off

Signature	Date	Description
QA Assessor		UNDP staff member responsible for the Project, typically a UNDP Programme Officer. Final signature confirms they have “checked” to ensure that the SESP is adequately conducted.
QA Approver		UNDP senior manager, typically the UNDP Deputy Country Director (DCD), Country Director (CD), Deputy Resident Representative (DRR), or Resident Representative (RR). The QA Approver cannot also be the QA Assessor. Final signature confirms they have “cleared” the SESP prior to submittal to the PAC.
PAC Chair		UNDP chair of the PAC. In some cases, PAC Chair may also be the QA Approver. Final signature confirms that the SESP was considered as part of the project appraisal and considered in recommendations of the PAC.

Social and Environmental Risk Screening Checklist

Checklist Potential Social and Environmental Risks		Answer (Yes/No)
Principles 1: Human Rights		
1.	Could the Project lead to adverse impacts on enjoyment of the human rights (civil, political, economic, social or cultural) of the affected population and particularly of marginalized groups?	No
2.	Is there a likelihood that the Project would have inequitable or discriminatory adverse impacts on affected populations, particularly people living in poverty or marginalized or excluded individuals or groups? ²¹	No
3.	Could the Project potentially restrict availability, quality of and access to resources or basic services, in particular to marginalized individuals or groups?	No
4.	Is there a likelihood that the Project would exclude any potentially affected stakeholders, in particular marginalized groups, from fully participating in decisions that may affect them?	Yes
5.	Is there a risk that duty-bearers do not have the capacity to meet their obligations in the Project?	Yes*
6.	Is there a risk that rights-holders do not have the capacity to claim their rights?	Yes
7.	Have local communities or individuals, given the opportunity, raised human rights concerns regarding the Project during the stakeholder engagement process?	Yes
8.	Is there a risk that the Project would exacerbate conflicts among and/or the risk of violence to project-affected communities and individuals?	No
Principle 2: Gender Equality and Women's Empowerment		
1.	Is there a likelihood that the proposed Project would have adverse impacts on gender equality and/or the situation of women and girls?	No
2.	Would the Project potentially reproduce discriminations against women based on gender, especially regarding participation in design and implementation or access to opportunities and benefits?	Yes
3.	Have women's groups/leaders raised gender equality concerns regarding the Project during the stakeholder engagement process and has this been included in the overall Project proposal and in the risk assessment?	No
4.	Would the Project potentially limit women's ability to use, develop and protect natural resources, taking into account different roles and positions of women and men in accessing environmental goods and services? <i>For example, activities that could lead to natural resources degradation or depletion in communities who depend on these resources for their livelihoods and well being</i>	No
Principle 3: Environmental Sustainability: Screening questions regarding environmental risks are encompassed by the specific Standard-related questions below		
Standard 1: Biodiversity Conservation and Sustainable Natural Resource Management		
1.1	Would the Project potentially cause adverse impacts to habitats (e.g. modified, natural, and critical habitats) and/or ecosystems and ecosystem services? <i>For example, through habitat loss, conversion or degradation, fragmentation, hydrological changes</i>	No
1.2	Are any Project activities proposed within or adjacent to critical habitats and/or environmentally sensitive areas, including legally protected areas (e.g. nature reserve, national park), areas proposed for protection, or recognized as such by authoritative sources and/or indigenous peoples or local communities?	No
1.3	Does the Project involve changes to the use of lands and resources that may have adverse impacts on habitats, ecosystems, and/or livelihoods? (Note: if restrictions and/or limitations of access to lands would apply, refer to Standard 5)	No
1.4	Would Project activities pose risks to endangered species?	No
1.5	Would the Project pose a risk of introducing invasive alien species?	No
1.6	Does the Project involve harvesting of natural forests, plantation development, or reforestation?	No
1.7	Does the Project involve the production and/or harvesting of fish populations or other aquatic species?	No
1.8	Does the Project involve significant extraction, diversion or containment of surface or ground water? <i>For example, construction of dams, reservoirs, river basin developments, groundwater extraction</i>	No

²¹ Prohibited grounds of discrimination include race, ethnicity, gender, age, language, disability, sexual orientation, religion, political or other opinion, national or social or geographical origin, property, birth or other status including as an indigenous person or as a member of a minority. References to "women and men" or similar is understood to include women and men, boys and girls, and other groups discriminated against based on their gender identities, such as transgender people and transsexuals.

*Social and Environmental Standards effective on 1 January 2015 provide guidance on setting-up project-level grievance redress mechanism (see Stakeholder Engagement and Response Mechanisms, paragraphs 12-20, and Monitoring, Reporting and Compliance, paragraphs 22-27.). Quality assurance procedures undertaken as part of the standard project implementation (i.e. regular UNDP monitoring, annual meetings, and independent monitoring) would also provide an opportunity to address grievances.

1.9	Does the Project involve utilization of genetic resources? (e.g. collection and/or harvesting, commercial development)	No
1.10	Would the Project generate potential adverse transboundary or global environmental concerns?	No
1.11	Would the Project result in secondary or consequential development activities which could lead to adverse social and environmental effects, or would it generate cumulative impacts with other known existing or planned activities in the area? <i>For example, a new road through forested lands will generate direct environmental and social impacts (e.g. felling of trees, earthworks, potential relocation of inhabitants). The new road may also facilitate encroachment on lands by illegal settlers or generate unplanned commercial development along the route, potentially in sensitive areas. These are indirect, secondary, or induced impacts that need to be considered. Also, if similar developments in the same forested area are planned, then cumulative impacts of multiple activities (even if not part of the same Project) need to be considered.</i>	Yes
Standard 2: Climate Change Mitigation and Adaptation		
2.1	Will the proposed Project result in significant ²² greenhouse gas emissions or may exacerbate climate change?	No
2.2	Would the potential outcomes of the Project be sensitive or vulnerable to potential impacts of climate change?	Yes
2.3	Is the proposed Project likely to directly or indirectly increase social and environmental vulnerability to climate change now or in the future (also known as maladaptive practices)? <i>For example, changes to land use planning may encourage further development of floodplains, potentially increasing the population's vulnerability to climate change, specifically flooding</i>	No
Standard 3: Community Health, Safety and Working Conditions		
3.1	Would elements of Project construction, operation, or decommissioning pose potential safety risks to local communities?	Yes
3.2	Would the Project pose potential risks to community health and safety due to the transport, storage, and use and/or disposal of hazardous or dangerous materials (e.g. explosives, fuel and other chemicals during construction and operation)?	No
3.3	Does the Project involve large-scale infrastructure development (e.g. dams, roads, buildings)?	No
3.4	Would failure of structural elements of the Project pose risks to communities? (e.g. collapse of buildings or infrastructure)	n/a
3.5	Would the proposed Project be susceptible to or lead to increased vulnerability to earthquakes, subsidence, landslides, erosion, flooding or extreme climatic conditions?	n/a
3.6	Would the Project result in potential increased health risks (e.g. from water-borne or other vector-borne diseases or communicable infections such as HIV/AIDS)?	No
3.7	Does the Project pose potential risks and vulnerabilities related to occupational health and safety due to physical, chemical, biological, and radiological hazards during Project construction, operation, or decommissioning?	No
3.8	Does the Project involve support for employment or livelihoods that may fail to comply with national and international labor standards (i.e. principles and standards of ILO fundamental conventions)?	No
3.9	Does the Project engage security personnel that may pose a potential risk to health and safety of communities and/or individuals (e.g. due to a lack of adequate training or accountability)?	No
Standard 4: Cultural Heritage		
4.1	Will the proposed Project result in interventions that would potentially adversely impact sites, structures, or objects with historical, cultural, artistic, traditional or religious values or intangible forms of culture (e.g. knowledge, innovations, practices)? (Note: Projects intended to protect and conserve Cultural Heritage may also have inadvertent adverse impacts)	No
4.2	Does the Project propose utilizing tangible and/or intangible forms of cultural heritage for commercial or other purposes?	No
Standard 5: Displacement and Resettlement		
5.1	Would the Project potentially involve temporary or permanent and full or partial physical displacement?	No
5.2	Would the Project possibly result in economic displacement (e.g. loss of assets or access to resources due to land acquisition or access restrictions – even in the absence of physical relocation)?	Yes
5.3	Is there a risk that the Project would lead to forced evictions? ²³	No

²² In regards to CO₂, 'significant emissions' corresponds generally to more than 25,000 tons per year (from both direct and consequential sources). [The Guidance Note on Climate Change Mitigation and Adaptation provides additional information on GHG emissions.]

²³ Forced evictions include acts and/or omissions involving the coerced or involuntary displacement of individuals, groups, or communities from homes and/or lands and common property resources that were occupied or depended upon, thus eliminating the ability of an individual, group, or community to reside or work in a particular dwelling, residence, or location without the provision of, and access to, appropriate forms of legal or other protections.

5.4	Would the proposed Project possibly affect land tenure arrangements and/or community based property rights/customary rights to land, territories and/or resources?	No
Standard 6: Indigenous Peoples		
6.1	Are indigenous peoples present in the Project area (including Project area of influence)?	No
6.2	Is it likely that the Project or portions of the Project will be located on lands and territories claimed by indigenous peoples?	No
6.3	Would the proposed Project potentially affect the human rights, lands, natural resources, territories, and traditional livelihoods of indigenous peoples (regardless of whether indigenous peoples possess the legal titles to such areas, whether the Project is located within or outside of the lands and territories inhabited by the affected peoples, or whether the indigenous peoples are recognized as indigenous peoples by the country in question)? <i>If the answer to the screening question 6.3 is "yes" the potential risk impacts are considered potentially severe and/or critical and the Project would be categorized as either Moderate or High Risk.</i>	No
6.4	Has there been an absence of culturally appropriate consultations carried out with the objective of achieving FPIC on matters that may affect the rights and interests, lands, resources, territories and traditional livelihoods of the indigenous peoples concerned?	No
6.5	Does the proposed Project involve the utilization and/or commercial development of natural resources on lands and territories claimed by indigenous peoples?	No
6.6	Is there a potential for forced eviction or the whole or partial physical or economic displacement of indigenous peoples, including through access restrictions to lands, territories, and resources?	No
6.7	Would the Project adversely affect the development priorities of indigenous peoples as defined by them?	No
6.8	Would the Project potentially affect the physical and cultural survival of indigenous peoples?	No
6.9	Would the Project potentially affect the Cultural Heritage of indigenous peoples, including through the commercialization or use of their traditional knowledge and practices?	No
Standard 7: Pollution Prevention and Resource Efficiency		
7.1	Would the Project potentially result in the release of pollutants to the environment due to routine or non-routine circumstances with the potential for adverse local, regional, and/or transboundary impacts?	No
7.2	Would the proposed Project potentially result in the generation of waste (both hazardous and non-hazardous)?	No
7.3	Will the proposed Project potentially involve the manufacture, trade, release, and/or use of hazardous chemicals and/or materials? Does the Project propose use of chemicals or materials subject to international bans or phase-outs? <i>For example, DDT, PCBs and other chemicals listed in international conventions such as the Stockholm Conventions on Persistent Organic Pollutants or the Montreal Protocol</i>	No
7.4	Will the proposed Project involve the application of pesticides that may have a negative effect on the environment or human health?	No
7.5	Does the Project include activities that require significant consumption of raw materials, energy, and/or water?	No

Annex G. Environmental and Social Management Plan (ESMP) for moderate and high risk projects only

This project has identified as “moderate” risk, therefore an ESMP will be developed during the project inception period.

The objective of the ESMP is to ensure compliance of relevant policies and to direct the Project personnel and stakeholders during the implementation of the project in tackling the social and environmental concerns identified. Among those, the ESMP aims to manage the environmental and social impacts through appropriate mitigation measures that may arise with the implementation of the project. The ESMP will provide specific guidance to be followed consistent with any existing environmental and social impact studies of working sites (to be identified) but also the policies at the local, national and international level, and the UNDP.

The 'moderate' risk rating is due mainly to potential investments that may require construction works. The preliminary consideration of potential environmental and social risks mainly relate to operation and management of renewable energy systems, although sitting of the works may also involve moderate impacts.

It is expected that the Project will lead to sound positive environmental impacts due to the reduction of GHG emissions. It is also expected that the Project will lead to positive social impacts. Potential negative impacts will be identified and mitigation measures will be applied. These may relate to typical challenges faced by utility-scale and small-scale renewables investments, including health and safety to personnel and local communities and the environment.

The ESMP will include the following sections:

- Section 1 – Project scope and coverage, and objectives of the ESMP
- Section 2 – Potential social and environmental impacts due to the project activities and the methodology used
- Section 3 – Analysis of the legal and institutional framework relevant to the safeguards
- Section 4 – Procedures used for screening, assessment and management of environmental and social risks identified.
- Section 5 – Overview of institutional capacity assessment and building, including the assignment of responsibilities along the project cycle.
- Section 6 – Stakeholder engagement and disclosure process.
- Section 7 – UNDP’s grievance redress mechanism to be utilised during the project.
- Section 8 – Monitoring and evaluation arrangements
- Section 9 – Budget for ESMP implementation.

The ESMP will be submitted to UNDP-GEF for review and approval.

Annex H. UNDP Project Quality Assurance Report

To be completed by UNDP Country Office prior to when the UNDP-GEF delegation of authority is issued.

Annex I. UNDP Risk Log

#	Description	Date Identified	Type	Impact & Probability	Countermeasures / Mngt response	Owner	Submitted, updated by	Last Update	Status
1	Loss of political support	28 March 2017	Political	P=2 I=4	Project design is rooted and based on the national commitments and targets stated and adopted at the highest possible level, i.e. by the President, the Parliament and the Government of Kazakhstan. Any proposed revisions in the policies, as well as new ones to be proposed by the project will also have to secure the highest level of approval, i.e. by the Parliament (revision in the Law) or by the Government (e.g. changes in the feed-in tariffs). Project implementation will be based in the Ministry of Energy, thus giving the best chance of ensuring ownership and buy-in.	Project manager	Who submitted the risk <i>(In Atlas, automatically recorded)</i>	When was the status of the risk last checked <i>(In Atlas, automatically recorded)</i>	e.g. dead, reducing, increasing, no change <i>(in Atlas, use the Management Response box)</i>
2	Ongoing low international oil prices	28 March 2017	Financial	P=4 I=4	Unless appropriate policies and regulations, supported by financial de-risking mechanisms and incentives are introduced and enforced, RE will not be able to compete with fossil fuel based power generation in Kazakhstan. Component 1 for large-scale renewables and component 2 for small-scale renewables therefore aims precisely at achieving these goals and leveling playing field for RE.	Project manager			
3	Private investors do not find RES investments sufficiently attractive	28 March 2017	Financial	P=2 I=5	The project adopts private investors' perspective to the analysis of risk, underlying barriers and the design of de-risking strategy. A detailed quantitative analysis of investment has been conducted based on DREI framework and methodology and proposed set of policy and financial de-risking tools are proposed in line with investors outlook. Through policy and financial de-risking the project will ensure that investments become more attractive.	Project manager			
4	Domestic supply chain and capacities for RES in Kazakhstan are very	28 March 2017	Technology	P=3 I=3	First, the project will involve top-level international technical specialists with experience of implementing RES projects in developing countries to provide quality	Project manager			

#	Description	Date Identified	Type	Impact & Probability	Countermeasures / Mngt response	Owner	Submitted, updated by	Last Update	Status
	limited – this may cause inadequate implementation of RES projects leading to sub-optimal performance, malfunctioning, etc.				assurance throughout all stages of pilot RES project design and implementation. Second, a significant share of Component 2 will be devoted to building domestic capacity for small-scale RES, through provision of vocational training and other type of learning and educational activities. Finally, domestic quality certification scheme for certain type of RES (e.g. solar PV) will be proposed and implemented to ensure minimum quality standards for RES projects.				
5	Co-financing for pilot projects doesn't materialize due to lack of private sector interest and/or government commitment	28 March 2017	Financial	P=1 I=4	Co-financing for pilot RES for life projects will be provided from the financial institutions eager to support this technology and sectors with signed letters of financing, with continued support from the Ministry of Energy.	Project manager			
6	Local financial institutions fail to launch financial products to support small-scale RED developments	28 March 2017	Financial	P=3 I=5	The project will offer capacity building and training for the local financial institutions. Furthermore, the confidence of the financial institutions will be increased via demonstrations activities, i.e. pilot small-scale RES projects will be supported. Also, created favorable policy environment under Component 2 for small-scale renewables will enable development of financial products.	Project manager			
7	Climate change poses two categories of risks for the deployment of RES in Kazakhstan. First, intensified frequency and scale of natural disasters pose risks to any infrastructure,	28 March 2017	Environmental	P=1 I=3	Resource risk will be mitigated through diversification of targeted RES, solar, wind, biogas, etc. In fact, solar and wind resources, where the largest potential exist in Kazakhstan, are not expected to be negatively affected by the changing climate. Regarding infrastructure risks caused by climate-induced events, for each pilot investment climate risk assessment will be conducted and mitigation strategy proposed as part of pilot project design	Project manager			

#	Description	Date Identified	Type	Impact & Probability	Countermeasures / Mngt response	Owner	Submitted, updated by	Last Update	Status
	including to RES projects. Second, availability of some RE resources might be affected as a result of climate change (e.g. hydro)								
8	Small-scale urban and rural RES developers do not use developed financial products	28 March 2017	Social	P=2 I=4	The risk is mitigated through a country-wide awareness campaign and adequate design of financial products tailored to the needs and abilities of small-scale developers.	Project manager			
9	Developed business and financial models for small-scale RES are not replicated through out the Kazakhstan	28 March 2017	Market	P=1 I=3	The mitigation measures include increasing awareness (component 2), increasing access to small-scale finance (component 3), ensuring continued governmental support and commitment for small-scale (component 2) and close monitoring of lessons learned.	Project manager			

Annex J. Results of the Capacity Assessment of the Project Implementing Partner and HACT Micro Assessment

Not applicable

Annex K. Additional Agreements

STANDARD LETTER OF AGREEMENT BETWEEN UNDP AND THE MINISTRY OF ENERGY OF THE REPUBLIC OF KAZAKHSTAN FOR THE PROVISION OF SUPPORT SERVICES

Dear *[name of the government official]*,

1. Reference is made to consultations between officials of the Government of the Republic of Kazakhstan (hereinafter referred to as “the Government”) at the Ministry of Energy of the Republic of Kazakhstan (MoE) and officials of UNDP with respect to the provision of support services by the UNDP country office for nationally managed programmes and projects. UNDP and the MoE hereby agree that the UNDP country office may provide such support services at the request of the MoE through its institution designated in the relevant project document of the joint project of the UNDP and the MoE “Derisking Renewable Energy Investment” (Atlas ID: 00101058), as described below.
2. The UNDP country office may provide support services for assistance with reporting requirements and direct payment. In providing such support services, the UNDP country office shall ensure that the capacity of the Government-designated institution is strengthened to enable it to carry out such activities directly. The costs incurred by the UNDP country office in providing such support services shall be recovered from the administrative budget of the office.
3. The UNDP country office may provide, at the request of the designated institution, the following support services for the activities of the project:
 - (a) Identification and recruitment of project personnel; handling administrative issues related to the project personnel;
 - (b) Identification and facilitation of training activities, seminars and workshops;
 - (c) Procurement of goods and services;
 - (d) Processing of direct payments.
4. The procurement of goods and services and the recruitment of project personnel by the UNDP country office shall be in accordance with the UNDP regulations, rules, policies and procedures. Support services described in paragraph 3 above shall be detailed in an annex to the project document, in the form provided in the Attachment hereto. If the requirements for support services by the country office change during the life of a project, the annex to the project document is revised with the mutual agreement of the UNDP resident representative and the designated institution.
5. The relevant provisions of the Standard Basic Assistance Agreement (SBAA) between with the Government of the Republic of Kazakhstan and the UNDP, signed by the Parties on 5 October 1992, including the provisions on liability and privileges and immunities, shall apply to the provision of such support services. The Government shall retain overall responsibility for the nationally managed project through its designated institution. The responsibility of the UNDP country office for the provision of the support services described herein shall be limited to the provision of such support services detailed in the annex to the project document.
6. Any claim or dispute arising under or in connection with the provision of support services by the UNDP country office in accordance with this letter shall be handled pursuant to the relevant provisions of the SBAA.
7. The manner and method of cost-recovery by the UNDP country office in providing the support services described in paragraph 3 above shall be specified in the annex to the project document.
8. The UNDP country office shall submit progress reports on the support services provided and shall report on the costs reimbursed in providing such services, as may be required.

9. Any modification of the present arrangements shall be effected by mutual written agreement of the parties hereto.

10. If you are in agreement with the provisions set forth above, please sign and return to this office two signed copies of this letter. Upon your signature, this letter shall constitute an agreement between the MoE and UNDP on the terms and conditions for the provision of support services by the UNDP country office for nationally managed project the United Nations Development Programme (UNDP) and the MoE (Ministry of Energy of the Republic of Kazakhstan) “Derisking Renewable Energy Investment”.

Yours sincerely,

Signed on behalf of UNDP
[Name]
[Title: Resident Representative]

For the Government
[Name/title]
[Date]

DESCRIPTION OF UNDP COUNTRY OFFICE SUPPORT SERVICES

1. Reference is made to consultations between the Ministry of Energy of the Republic of Kazakhstan (MoE), the institution designated by the Government of Kazakhstan, and officials of UNDP with respect to the provision of support services by the UNDP country office for the nationally managed project of UNDP and the MoE of Kazakhstan “Derisking Renewable Energy Investment” (Atlas ID: 00101058), or “the Project”.
2. In accordance with the provisions of the letter of agreement signed and the project document, the UNDP country office shall provide support services for the Project as described below.
3. Support services to be provided, including:

Support services	Schedule for the provision of support services	Cost to UNDP of providing such support services (where appropriate)	Amount and method of reimbursement of UNDP (where appropriate)
Payment Process	Ongoing throughout implementation when applicable	As per the UPL- US\$ 32.49 for each	UNDP will directly charge the project upon provision of services, on a quarterly basis.
Vendor profile entry in ATLAS	Ongoing throughout implementation when applicable	As per the UPL- US\$ 16.72 for each	As above
Project personnel selection and/or recruitment process * Task Manager: Large-scale renewable energy * Task Manager: Small-scale renewable energy development * Small-scale renewable energy analyst	Start of project	As per the UPL- US\$ 491.63	As above
Staff HR & Benefits Administration & Management (one time per staff including medical insurance enrolment, payroll setup and separation process)	Ongoing throughout implementation when applicable	As per the UPL- US\$ 173.02 for each	As above
Recurrent personnel management services: Staff Payroll & Banking Administration & Management (per staff per calendar year)	Ongoing throughout implementation when applicable	As per the UPL- US\$ 381.93 for each	As above
Consultant recruitment	Ongoing throughout implementation when applicable	As per the UPL- US\$ 192.76 for each	As above
Procurement of goods and services involving local CAP	Ongoing throughout implementation when applicable	As per the UPL- US\$ 444.18 for each purchasing process	As above

Support services	Schedule for the provision of support services	Cost to UNDP of providing such support services (where appropriate)	Amount and method of reimbursement of UNDP (where appropriate)
Procurement of goods and services not involving local CAP	Ongoing throughout implementation when applicable	As per the UPL- US\$ 179.38 for each purchasing process	As above
Issue/Renew IDs (UN LP, UN ID, etc.)	Ongoing throughout implementation when applicable	As per the UPL- US\$ 32.55 for each	As above
F10 settlement	Ongoing throughout implementation when applicable	As per the UPL- US\$ 26.81 for each	As above
Visa request	Ongoing throughout implementation when applicable	US\$ 46.98 for each	As above
Hotel reservation	Ongoing throughout implementation when applicable	US\$ 13.16 for each	As above
Travel Ticket processing	Ongoing throughout implementation when applicable	US\$ 36.97 for each	As above

Total amount for support services shall not exceed 51,900 USD.

Annex L. Kazakhstan Renewable Energy Policy Overview

The **Strategy “Kazakhstan 2050”** provides clear guidelines for building a sustainable and efficient economic model based on the country’s transition to a green development path.

According to the Decree No 577 dated on May 30, 2012 the President of Kazakhstan approved **the Concept for transition of the Republic of Kazakhstan to green economy**. As written in the Concept: “Transition to Green Economy will enable Kazakhstan to achieve the proclaimed goal of entering the top 30 developed countries of the world. According to estimates, the transformations to be implemented as a part of a Green Economy will additionally increase the GDP by 3%, create more than 500,000 new jobs, develop new industries and services and generally provide higher living standards all over the country by 2050. Overall investments required for transition to a Green Economy will be about 1% of GDP per annum, which is equivalent to \$3-4 billion”. The Concept of Transition to Green Economy of Kazakhstan serves as the main document for state planning and target setting in the area of renewable energy (Government decree N79, May 30, 2013). The concept established the following ambitious targets:

- 10% share of renewable energy in generation by 2030;
- 40% share of renewable energy in generation by 2050;
- reduce CO2 emissions in electricity production by 40% in 2050.

Action plan for 2013-2020 adopted by the Decree of the No750 dated July 31, 2013 was developed to implement the Concept. According to the Action plan, energy conservation and improvement of energy efficiency in residential and commercial buildings should be reached through measures including review of heat tariffs, introduction of tax breaks, financial support, facilitating local production of construction materials, conducting energy audit of all buildings every 5 years, the modernisation of buildings, and improving normative documentation for design construction. In terms of renewable energy sources (RES), it is planned to establish an interagency committee on RES in Kazakhstan.

To facilitate the achievement of RES targets the **Law on Renewable Energy Sources** was adopted in 2009. The Law puts in place following important provisions:

- Establishment of feed-in-tariffs for different categories of renewables fixed for 15 years;
- Establishing priority dispatch and grid access for RES projects;
- Establishing obligatory purchase of RES power by the Settlement Center;
- Adoption of a prototype Power Purchase Agreement (PPA);
- Introduces net-metering.

The Law on support of RES (No.165-IV dated July 4, 2009) provides definition for net-metering and stipulates that consumers who generate their own electricity are allowed to sell this electricity to the grid, however not more than five hundred kilowatt-hours per month could be sold. The detailed Law on net-metering was submitted to the Government of Kazakhstan on 12th July 2016 and defines the rules and procedures for consumers who generate their own electricity. The requirement for net-producers are: not more than five hundred kilowatt-hours per month could be sold; and the installation must be of less than 100 KW capacity, while a seller could be a physical person or a company.

Changes made in 2016 to the "Law on RES" provide for a siting plan on the recommended allocation of RES facilities. This plan should be adopted by taking into account the development targets of renewable energy sector. Its objective will be to identify the areas of recommended placement of RES facilities for the effective state regulation and RES support. The procedure for the development of the siting plan of RES objects should be approved by a separate order of the Ministry of Energy of the RK.

The RES law specifies two tariffs: fixed tariffs established for solar, wind, etc., which is used by the Settlement Center in the PPA when acquiring the power from the RES producers; and feed-in-tariff – which is used by the Settlement Center for further sale of acquired RE power to the traditional energy companies. In this connection, the terminology on FiT used worldwide and the terminology used in Kazakhstan RES law may not be the same.

Also, according to the 2016 amendments to the RES Law, to encourage the integration of low-power RES objects,

fixed tariffs will be differentiated in proportion to their capacity. This rule does not apply to existing sale contracts of Settlement Centre concluded with the energy-producing organizations. The procedure / mechanism of such differentiation should be determined in the Decree of the Government of the Republic of Kazakhstan "On approval of determining the fixed tariffs of the Rules.

The Rules on support of individual consumers No.10083 dated January 13, 2015 provides 50% subsidy to cover the technology costs (with a total capacity of five kilowatts or less), providing that the technology is made by a local producer.

Additionally, there are several governmental programs oriented towards agricultural and social development, which support indirectly development of small-scale RES.

For instance, the **programme on Employment 2020** was adopted on 19 June 2013 and stipulates state support measures improving infrastructure in the rural areas. A few small-scale hybrid wind and solar projects have been supported in remote farms of Kazakhstan through this programme.

The Agricultural Development Programme 2013-2020 aims at supporting producers, improving the yield of land and livestock, increasing competitiveness of agricultural produce and create favourable conditions for development of agribusiness development. Application of small wind and solar technologies in farms and pastures is encouraged by The Agricultural Development Program, which triggered adoption of the program on investment subsidies for agricultural developments (Decree N 9-3/726 dated 7th of August 2015), which also offers 80% subsidies for the farmers who purchase wind or solar equipment to support their activities. According to the Ministry of agriculture, 30% of applications submitted for this programme included development of small wind turbines.

The **National Program for Development of Wind Energy until 2015 and up to 2030** sets the target to produce 900 million kWh per year by 2015 and 5 billion kWh per year by 2024 of the wind energy. The Program also provides for wind energy support in rural areas and specifies the list of measures to achieve the targets.

Strategic Development Plan of the Republic of Kazakhstan to 2020 stipulates that the share of RES in the total share of energy consumption should reach 1.5% by 2015, and more than 3% by 2020.

The **Concept of development of the fuel and energy complex of Kazakhstan** until 2030 (decree No. 724 dated 28 June 2014) includes the following tasks:

- Ensure energy security of the country by increasing self-sufficiency in resources and FEC products;
- Increase geopolitical influence in the region by addressing energy consumption growth in the economies of the region;
- Develop the economic potential of the country;
- Develop scientific potential;
- Improve safety and reliability of electrical equipment and power facilities;
- Intensively develop the fuel and energy sector by utilizing the technologies of the 21st century;
- Actively involve renewable energy and alternative energy sources in the energy mix;
- Conserve energy and resources, and improve energy efficiency.

The **Concept for Transition to Sustainable Development for 2007-2024** (Decree of the President of the Republic of Kazakhstan No.216 dated November 14, 2006) was adopted to support implementation of the Strategy for development of Kazakhstan until 2030. The concept explicitly refers to importance of development of renewable energy to improve social economic and environmental conditions in Kazakhstan.

State programme "Energy Efficiency 2020" was adopted on August 29, 2013 by the Decree No 904 [30]. The objective of the Programme is to reduce consumption by 10% every year until 2015 and decrease energy intensity of GDP by 40% in 2020 comparing to the level of 2008. There are nine main streams for the Programme implementation: EE industry, EE innovative energy, EE housing and utilities, EE construction, EE transport, EE lighting, EE society, EE budget sector, and economic payment.

The Concept for Ecological Safety (Decree N1241 dated 3d December 2003) alerts about increased air pollution in cities and town of Kazakhstan and calls for development of renewable energy as an important measure to improve air quality and health of the population.

The Concept of Industrial and Innovation Development of the Republic of Kazakhstan for 2015-2019 years

(Resolution of the Government of the Republic of Kazakhstan dated December 31, 2013 No 1497) states that Kazakhstan needs to implement structural changes in the economy necessary to maintain high rates of economic growth. Renewable energy is identified as one of the priority innovation sectors, for which support should be sought including inter alia through creation of world-class infrastructure, technology parks and research centres. It is targeted that the energy intensity of gross domestic product should be reduced by at least 10% by 2015 and 25% by 2020.

Modernization of housing and communal services between 2011 and 2020 - One of the priority objectives of the program for 2011-2020 is to update the country's housing stock by increasing the number of thermo-residential buildings. In 2014 more than 11 billion Tenge was provided for repair of apartment houses in Kazakhstan in the framework of modernization program of housing and communal services of Kazakhstan for 2011-2020. It is planned that interest-free loans will be allocated from the state budget for renovation of apartment buildings.

In 1995 Kazakhstan ratified the UNFCCC as a non-Annex I party, and in 1999 committed to join industrialized nations in their effort to limit GHG emissions and accept a binding and quantified emission limitation of 100% over a 1992 baseline. Further, in 2010 Kazakhstan announced and communicated to the Parties its additional voluntary commitments to reduce GHG emissions by 15% by 2020 below 1990 emissions and by 25% by 2050.

The development of the Kazakh Emission Trading Scheme was enacted into law on 3 December 2011 through an amendment to Kazakhstan's "Ecological Code", thereby establishing a national market mechanism for the reduction of GHG emissions which should allow for both national and international trade in emissions allowances, in addition to initiating the development of a domestic offset scheme. Since the adoption of the amendment to the Ecological Code, 17 Government decrees and 14 Ministerial orders have been drafted to regulate the Kazakh ETS and the domestic offset scheme, and to date all but one of these have been adopted. In accordance with the Ecological Code the pilot phase of the Kazakh ETS started on 1 January 2013, and was currently intended to last one year. The pilot phase is to be followed by the "second trade period", the duration of which is still to be officially determined, but was expected to cover the years 2014 to 2020. Given changes in priorities of the government the ETS system is currently on hold.

A grid code has been in place since 1996. According to the "grid code" both generators and customers have the right to non-discriminatory access to the power grids. A separate fee for access to power grids is currently not provided. Until January 2009 there was a procedure under which if connection to the network was leading to its expansion and reconstruction, the owner of the connection had to compensate the grid company. The fee was set pursuant to the methodology approved by Agency of the Republic of Kazakhstan on Regulation of Natural Monopolies (ANMR), subject to the connected capacity and payment per unit of power, set forth in the grid company's approved network development plan. Subject to entrepreneurship support measures, such payments were abolished in December 2008. Separate transmission, distribution and end-user tariffs are in place.²⁴ Currently, the RES law adopted in 2016 requires that such costs (as connection to the network was leading to its expansion and reconstruction, should be paid by the RE developer.

²⁴ Commercial laws of Kazakhstan. EBRD 2014

Annex M. GHG Calculations

Emission reductions for this project were calculated based on current guidance from the GEF Secretariat. Specifically, the calculations are based on methodologies introduced for GEF-funded energy efficiency and renewable energy projects as per the latest guidelines (GEF/C.48/Inf.09 from the June 2015 Council), and direct and consequential emission reductions were estimated. These estimates are reflected in the GEF Climate Change Mitigation Tracking Tool, which has been submitted concurrently with this document to the GEF.

Overall, the project calculations assume two primary sources of emission reductions: 1) direct emission reductions from small-scale renewable energy projects implemented under the project's Component 3, and 2) consequential emission reductions from development of policy derisking instruments for large and small-scale renewable energy developments under Component 1, Component 2 and Component 3.

Direct GHG reductions are 0.46 million tonnes CO₂ over the lifetime of investments. Consequential GHG reductions are estimated between 1.8 million tonnes CO₂ (estimate using bottom-up methodology) and 8 million tonnes CO₂ (estimated using top-down methodology). The total reductions are presented in the table below.

Table 10: Overview of GHG calculations.

Results	t CO₂e
Direct emissions reductions	460,373
Direct post project emissions reductions	-
Consequential bottom-up emissions reductions	1,841,492
Consequential top-down emissions reductions	8,021,400
Key Data	
Annual electricity saved / generated (MWh)	24,966
Emissions factor (T CO ₂ e / MWh)	0.92
Useful Investment Lifetime (years)	20.00
Replication Factor	4.00
P10 (t CO ₂)	13,369,000
GEF Causality Factor (%)	60

Direct Emission Reductions

As projected in the project activities, under Component 3, the Project will provide incentive payments or performance based grants combined with financial instruments, which will address the first-mover risks for small-scale renewable energy projects. The incentive payments to address incremental costs could cover up to 20% of the project costs. The calculations assume that hybrid installations of 1 kW will be installed at the costs of US\$ 10 000 (based on the interview with the local engineering companies). In such a way, 9500 installations will be installed as a result of the project interventions. The emission factor is 0.922 tCO₂/GJ, which is a combined margin emission factor for Kazakhstan based on Lahmeyer International.

In total, the project is expected to result in a total of 13,000 tonnes CO₂ per year in the last year of the project (2022) and 260,002 tonnes CO₂ over the lifetime of investments – calculated in the table below.

Table 11: Calculation 1: Reductions from introduction of grants for small-scale developers

Parameter	Units	Value	Calculation	Source of information
MW capacity	MW	9.5	A	Assumption
Capacity factor	%	30	B	DREI Report for Kazakhstan
Electricity production	MWh/year	24966	$C = A \times B \times 365 \times 24$	Calculated
Grid emissions factor	tonnes CO ₂ eq/MWh	0.922	D	Lahmeyer International, 2016
Lifetime of investment	years	20	F	Assumption for standard
Lifetime GHG reductions from electricity production	tonnes CO ₂ eq	260,002	$G = C \times D \times F$	Calculated

Consequential Emission Reductions

Consequential reductions were estimated by using both bottom-up and top-down methods.

The bottom-up estimate assumes a replication factor of 4, which reflects creation of the financial instruments under Component 3.

Table 12: Consequential bottom-up emission reductions

Label	Unit	Value
Direct emissions reductions	tonnes/CO ₂ eq	460,373
Replication factor	#	4
Indirect bottom up estimate	tonnes/CO ₂ eq	1,841,492

Consequential top-down emissions reductions estimate are based on the assumption the Government adopts policy and financial d-risking measures developed within the Project, which will allow Kazakhstan to achieve 10% target for renewable energy by 2030. It would result in approximately 14.5 TWh of energy produced from renewable energy sources between 2017 and 2027 (based on the projections made in the Concept to transition to green economy of Kazakhstan). The causality factor was estimated to be 60% since there are activities by other donor's contributing to development of policy and financial derisking tools. The calculation of the 10-year market potential and consequential top-down estimate is described in the tables below.

Table 13: Consequential top-down emission reductions

Parameter	Units	Value	Calculation	Source of information
10-year power production potential	TWh	14.5	A	<i>Concept to transition to green economy of Kazakhstan</i>
Grid emissions factor	tonnes CO ₂ eq/MWh	0.922	B	Lahmeyer International, 2016
Causality factor	%	60	C	<i>Assumption</i>
Consequential top-down estimate	tonnes CO ₂ eq	8,021,400	$D = A \times B \times C$	Calculated

Annex N. Stakeholder Analysis

Governmental organisations	Ministry of Energy	It is the central executive body responsible for development and implementation of state policies, coordination of management process in the areas of energy, including development of renewable energy, control over state development policies of "green economy", and the Renewable Energy Transfers Programmes. Our local expert team includes experts with experience and a positive reputation with the Ministry, and this will facilitate collaboration.
	Ministry of Agriculture	It is the central executive body responsible for formation and implementation of agricultural and regional policy and strategic planning. The project that will be designed will work with the Ministry and will incorporate and build on its State Programme on Water Supply to Farming Communities for renewable energy applications in the agricultural sector.
	Ministry of Industry and New Technologies	Manages energy saving and energy efficiency policy and approves feasibility studies for planned renewable energy projects.
	Agency of the Republic of Kazakhstan on Regulation of Natural Monopolies ANMR	The company is responsible for state regulation of activity of natural monopolies and prices of goods (works, services) on regulated markets. ANMR is a regulatory body that sets tariffs.
	Invest in Kazakhstan	State investment agency responsible for attracting and consulting with foreign investors.
	KEGOC	The company performs the functions of the System Operator. It manages and operates the national grid - 45 regional electricity generating companies operate in Kazakhstan. The company also operates the Settlement Centre established to purchase power produced by IPP of RES.
	Samruk Kazyna	The Sovereign Wealth Fund «Samruk-Kazyna» was founded by merge of two joint stock companies Kazakhstan Holding for the Management of State Assets SAMRUK and KAZYNA Sustainable Development Fund. Key Objectives of Samruk-Kazyna are: to develop and ensure implementation of regional, national and international investment projects; to support regional development and implementation of social projects; to support national producers. Samruk Kazyna also provides funding for the Settlement Centre.
	Samruk Kazyna Invest LLP	The company is participating and managing some investment projects of Samruk-Kazyna. The company is developing 'Burnoye Solar- ' jointly with UK-based United Green Energy, with EBRD and CTF funding.
	KKS Communal System	LLP "KKS" operates in the energy generation markets and is in charge of transmission and sale of electricity and heat in Kazakhstan. The main activities include power generation; production of thermal energy; transmission, sales of heat and electricity. The company has two projects: 40MW wind in South Kazakhstan oblast and small hydro project.
Suppliers	JSC Solar	The only domestic manufacturer of solar PV hardware in Kazakhstan (approximately 50 MW/year); The company is subsidiary of NAC Kazatomprom JSC. It is interested in exploring new market opportunities and business models to promote solar PV in public and residential sector.
	Enkom ST	Enkom is an engineering company that supplies energy saving technologies from the leading global manufacturers to Kazakhstan., The company has been working with UNDP since 2007 on piloting various organisational and financial models with the aim of attraction of investment into energy saving sector. The company plans to expand its activities to renewable energy technologies.
	The Solar Silicon LLP	The company is subsidiary of NAC Kazatomprom JSC and was established in 2011 to launch commercial production of PV plates using local silicon resources. Most of the company's production is supplied to Astana Solar, which is the only local manufacturer of solar panels in Kazakhstan.
	Ecoenergomash LLP	The company produces wind and combined solar and wind installations ranging from 1 to 10 kWt, including inter alia Bolotov wind rotor turbines (WRTB) and B«Wind-SunB». The company also offers project developments works on power supply of the objects using IES WRTB;

		installation and testing works; remote monitoring of IES VRTB work in real time; consulting and service and complete technical support of the objects that use renewables.
NGOs	Kazakhstan Green Building Council	It is a not-for-profit industry organisation dedicated to accelerating development and adoption of market-based green building (sustainable building) practices. It works on promoting green buildings, including the integration of RES solutions in the building design via adoption of voluntary standards for green buildings, education of architects, construction industry and the general public. The organization may assist with designing policy and financial derisking instruments to promote “RES for Urban Life” market segment under Components 2 and 3.
	KazEnergy	KAZENERGY Association is an independent voluntary non-profit organization aimed at creating favorable conditions for the dynamic and sustainable development of oil-and-gas and electric power industry of Kazakhstan. KazEnergy unites more than 70 major players in the Energy production business in Kazakhstan.
	Building-level Associations of Apartment Owners and Tenants	The organization is involved in lobbying and promotion of apartment owners right, monitors and supports policy-making related to municipal management.
	Association of Farmers and Farming Cooperatives	The NGO was established in 2003 to unite farmers and support their interests. The organization is also involved in development and implementation of the governmental targeted programs supporting development of entrepreneurship in agricultural sector in Kazakhstan.
	RES Association of Kazakhstan	It is a non-profit organization amalgamating companies interested in the development of renewable energy in Kazakhstan. The company seeks to create comfortable conditions for development of "green" energy in Kazakhstan.
ESCOs	JSC International Center for Energy Efficiency “ProEco”	The company is an energy service provider (ESCOs) to various residential, municipal and business clients, e.g. design and implementation of turn-key EE solutions for buildings, heat supply, energy audit, etc. The company is interested in exploring the feasibility of RES applications in multi-family buildings (such as build-level PV and heat-pumps) based on RESCO or similar third-party ownership model.
	Ergonomika Ltd	The company is the first energy service company in Kazakhstan. The company's projects are supporting energy conservation in municipal sector of Kazakhstan.
International organisations	USAID	USAID in Kazakhstan participates in a range of regional programming, including Kazakhstan Climate Change Mitigation Program, Small Business Development Project (KSBD).
	IFC	IFC promotes the development of the private sector through investments and advisory services to support the diversification and competitiveness of the economy. IFC's strategy in Kazakhstan related to RES is focused on strengthening support on regulatory reforms needed to develop bankable projects.
	EBRD	EBRD provides advisory support on RES to the Government of Kazakhstan. In December 2016, the EBRD approved a financing framework to finance renewable energy projects with a total generating capacity of 300 MW. The projects are planned to cover wind and solar developments, small hydro plants and biogas. The EBRD will also support construction of generating capacity and electricity grid modernization to integrate renewable projects into the national transmission system.
	ADB	ADB is one of the major donors supporting renewable energy and energy efficiency projects in Central. ADB is involved in Municipal Energy Efficiency and District Heating Modernization Program and implementing a district heating project in Karaganda, which aims at providing more reliable heat supply to about 800 buildings and benefitting approximately 56,000 households. ADB has recently engaged in technical assistance for utility-scale renewable energy, supporting the Ministry of Energy in assessing options for auctioning.
	Eurasian Development Bank	The Eurasian Development bank works to promote sustainable economic growth in member states, and provides long-term financing for large-scale investment projects, including for the improvement of energy efficiency and sustainable development. They have expressed a strong

		interest in Renewable Energy and intend establishing a US\$30m credit line specifically for renewables over the course of the project.
	Islamic Development Bank (IDB)	The Bank has a 50m USD Renewable Energy Fund for Central Asia to finance renewable energy projects. It The project will involve close collaboration and coordination with existing public financial actors such as IDB. The focus will be on ensuring the overall most efficient and cost-effective approaches to catalyzing large-scale renewable energy investment.
Academia	Centre for Energy Research Nazarbaev University	Engaged on R&D on alternative energy and provides information and advisory support to the Government and public entities in the area of renewable energy. They are an important stakeholder so the project will likely work with academia/scientific organizations through advocacy, outreach and research activities
	Public Research Institute "KazEcoTerm"	Undertakes promotion of various RES (in particular heat pumps and bio-waste), via piloting and testing innovative RES approaches and applications and provides consultancy services for preparation of technical and economic feasibility studies for RES projects. The project will likely work with academia/scientific organizations through advocacy, outreach and research activities, so they are an important stakeholder
Financial Institutions	Kazagrofinance	KazAgroFinance JSC (National Holding "KazAgro") is the company, being the financial operator for implementation of the state programs for the country's agricultural complex support, including inter alia Agricultural Development Programme 2013-2020.
	DAMU	Damu implements governmental policy related to support of SME. Damu has 22 programs covering a wide range of financial instruments from micro-credits to large loans. Projects promoting energy efficiency is one of the priority areas, which also include support of renewables. Currently, Damu is negotiating with EIB regarding provision of €200 mln for financing green projects in Kazakhstan.
	Fund for support of agriculture	Fund - is a specialized financial and credit institution, a member of the group of companies of "National Holding "KazAgro" JSC, focused on providing and expanding access to financial services for rural populations through the development of microcredit.
	Agrarian Credit Corporation	The Corporation is a part of National Holding "KazAgro" and provides assistance to the industrialization and diversification of the agricultural sector through development of credit system for agro-industrial complex.
	Astana Financial Centre (AFC)	The AFC's objective is to attract foreign investment, open up the Kazakh banking sector and make it easier for insurance companies and Islamic finance institutions to do business. The AFC facilitates development of "green" finance by providing the necessary conditions and infrastructure. Together with EBRD, AFC assesses the demand for green investments, identify gaps in current regulations, and explore possibilities for introduction of green financing standards and development of the green bonds market and carbon market services.
Private companies	Toshiba	The company is developing 42MW wind project Fort-Shevchenko on Mangistau region, Western Kazakhstan.
	SOWITEC	The company is developing 50-200 MW project in Shayan-Zhusymdyk.
	Globec	The company is developing 10 MW wind project in Kyzylorda oblast
	Samal Eco energy	The company is developing a 50 MW wind park near the city of Yereimentau, Akmola region, which will include 25 turbines
	Arman Engineering	The company is developing 15MW solar project in Badamsha settlement Aktubinskaya oblast and 28MW project in Zhuldys settlement in South Kazakhstan
	SWP	The company is developing 19.5 MW and 42MW wind project in Mangistau oblast.
	Ltd Solar Kurylys	The company is developing 35 MW solar park in Atyrau oblast.
	Fonroche Energies Renouvelables (France)	The company is developing 20-24 MW solar park in Taras city.
	LTD PVES	The company is developing 45 MW wind park in Erementau city.
	LTD Nomad Solar	The company is developing 30 MW solar park in Kesylorda oblast.
	TOO "БЕСТ-Групп"	The company is developing 5 MW solar project in Aktau city.
	Eurofinsa Group (Madrid, Spain)	The company is developing two 100 MW wind parks in Aktubinsk oblast and Baidibekskiy district of South Kazakhstan.

NAR creative-production	Developing 120 MW wind project Baibidek – 1.
Ltd Promondis Kazakhstan	Developing 35 MW solar project in rural district of Koksarai, Southern Kazakhstan.
Ltd "Antares Platinum"	Developing 60 MW wind project in Karabatan settlement, Atyraus oblast.
Ltd VES Saikan	Developing 19.5 MW wind project 'Saikan in Almata oblast.
Ltd Zhetisu Solar Power	Developing 5MW solar project in Talgar district of Almaty oblast.
Ltd Sun Solutions Kazakhstan	Developing 50 MW solar project in Shus district of Zhambyl oblast.
Ltd Cogenhan	Developing 100 MW project in Zhambyl oblast.
Ltd KPM-Delta	Developing 40 MW solar project in Gulshat settlement, Karaganda oblast.
Ltd Energia Alemi	Developing solar project and 50 kW biogas project in Almaty oblast.

Annex O. List of References and Resources Consulted

- ADB (2013) Country Gender Assessment: Kazakhstan
- IFC (2015) Investor Guide. Development of Renewable energy projects in Kazakhstan. Washington
- Kazakhstan National Inventory Report to UNFCCC (2014)
http://unfccc.int/national_reports/annex_i_ghg_inventories/national_inventories_submissions/items/8108.php
- Ministry of Investment and Development. Presentation on Energy saving and increasing energy efficiency. Astana. 2016
- EBRD (2015) <http://www.ebrd.com/news/2015/first-largescale-solar-plant-in-kazakhstan-receives-ebd-backing.html>
- Kazeurope (2016). Renewable energy opportunities in Kazakhstan. Presentation slides http://kazeurope.com/wp-content/uploads/2016/04/Renewable_Energy_Opportunities_in_Kazakhstan.pdf
- KEGOC (2016) Kazakhstan Electric Power Industry Key Factors, <http://www.kegoc.kz/en/power-industry/kazakhstan-electric-power-industry-key-factors>, accessed 1 July 2016
- Ministry of Energy of Kazakhstan (2016). <http://energo.gov.kz>
- Schmidt, T.S., Born, R., Schneider, M. (2012). Assessing the Costs of Photovoltaic and Wind Power in Six Developing Countries. Nature Climate Change 2, 548-553
- UNDP and United Nations Development Fund for Women (2004) Bridging the Gender Digital Divide: A Report on Gender and ICT in Central and Eastern Europe and the Commonwealth of Independent States.
- UNDP (2014) Renewable Energy Country Snapshot Kazakhstan
- UNDP (2014) Sustainable Energy and Human Development in Europe and the CIS
- UNIDO (2013). Sustainable Energy for All: The Gender Dimensions
https://www.unido.org/fileadmin/user_media_upgrade/What_we_do/Topics/Women_and_Youth/GUIDANCENOTE_FINAL_WEB.pdf
- Waissbein O, Glemarec Y, Bayraktar H and Schmidt T S (2013) Derisking Renewable Energy Investment: A Framework to Support Policymakers in Selecting Public Instruments to Promote Renewable Energy Investment in Developing Countries, UNDP: New York

Annex P. Co-financing letters

The co-financing letters and their translation are provided separately.

Annex Q. Gender Mainstreaming Analysis and Action Plan

Introduction

According to the 2015 Global Gender Gap Report of the World Economic Forum, Kazakhstan is ranked 47th (scored 0.719) in the Gender Gap Index (out of 145 countries). While education attainment is assessed well (28th position), political empowerment of women is rather low (ranked 78th). It is worth noting that the ranking has been gradually improving over the years, for example, the score in 2006 when the ranking was first calculated was 0.693 only.

Kazakhstan's new reform agenda "The 100 steps" can be leveraged to strengthen effective monitoring of gender equality initiatives. "The 100 steps" programme strives to establish a results-oriented state governance system with standardized procedures for monitoring, assessment and control. In addition, it stresses that the efficiency of implementing key initiatives by Ministers and Akims will be thoroughly monitored by the national commission. Moving forward, it will be important to mainstream the gender agenda within the broader governance reform initiatives to ensure that the national gender policy goes beyond declarative statements and translate into concrete action with measurable outcomes. Gender policy in Kazakhstan will need to increase awareness and understanding from line ministries and local executive bodies on the need of adopting a gender approach to policies.

In addition to the two laws governing gender policy ("On State Guarantees of Equal Rights and Equal Opportunities for Men and Women" and "On Prevention of Domestic Violence"), Kazakhstan ratified 12 international instruments in the field of gender equality. The country has acceded to the four fundamental documents of the UN Women's Rights: Declaration on the Elimination of Violence against Women (1993), the Beijing Declaration and Platform for Action (1995), the 2000 Millennium Declaration, the 2030 Agenda for Sustainable Development (2015). The recommendations of the UN Committee on the Elimination of Discrimination against Women were also implemented.

Gender equality: political dimensions

In Kazakhstan, women are still not sufficiently involved in the governmental and political structures. There is a typical gender pyramid of power, where women are present on the lower/secondary levels, but less well represented in high positions (in the decision-making level).

Within the executive branch of government, the most important figure in guiding state policy and activity on gender mainstreaming is Secretary of State of the Republic of Kazakhstan Gulnara Abdykalikova. Having formerly served as a Deputy Prime Minister and in other high-level positions in government and the private sector, she was appointed to this post by the President of the Republic of Kazakhstan. Ms. Abdykalikova serves ex officio as the Head of various national commissions, including "Gender Commission" [the National Commission for Women's Affairs, Family and Demographic Policy], and others. She is a great advocate for reforms, especially in the area of women's political leadership. She is also a strong ally of UNDP in all its activities in the country.

Despite the Act on State Guarantees of Equal Rights and Opportunities for Men and Women, no temporary special measures have been introduced to increase and sustain a high level of women's representation in legislative and executive bodies. According to the Civil Service Agency, women account for just 10% of political civil servants and 15% of political appointments (Corps A); in the Corps A reserve, women account for only 16.4% of the total. However, they comprise 54.9% of Corps B (administrative civil servants). Although the number of women in Parliament has increased overall, the number in the Senate has fallen twice in recent years, currently comprising just 6.4%. In addition, the legal framework on gender equality contains no comprehensive legal definition of direct or indirect discrimination in public or private spheres.

But this situation is evolving, with slow reduction in imbalances even at higher levels, especially within the national legislature, the Majilis. After the elections to the Majilis in 2016 the proportion of seats held by women in parliament has grown and is 27.1%, as a percentage, and in quantitative terms is the highest ever.

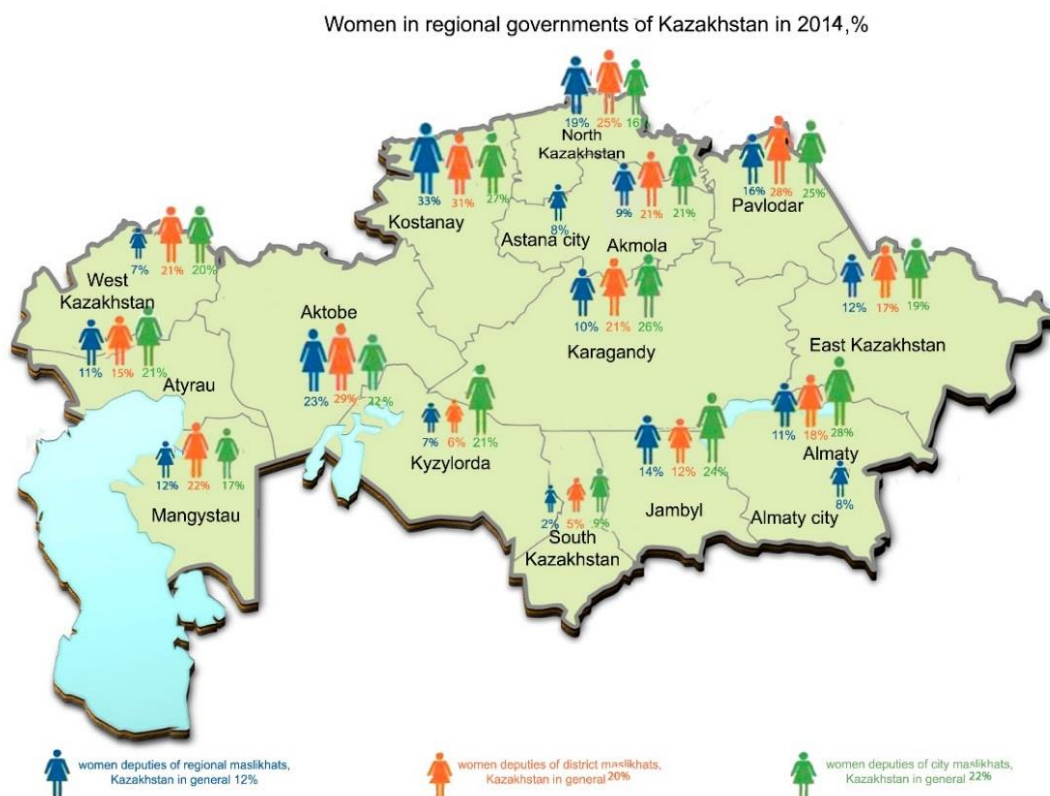
Table G.1. Share of women in Parliament of Kazakhstan (Majilis), in %

2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
10,4	16,8	17,0	17,8	17,8	17,8	23,8	26,2	26,2	26,2	27,1

Source:

http://www.stat.gov.kz/faces/wcnav_externalId/homeGenderInd2?_afLoop=32692553901851092#%40%3F_afLoop%3D32692553901851092%26_adf.ctrl-state%3D0iphfbh21_63

At the local level, the share of women delegates in the country as a whole is 17%. However, it is important to highlight that this number varies throughout the country depending on the region. The number of women at maslikhats (regional legislative bodies) increased (22.2% in 2016 against 16.7% in 2006). The number of women in some of the maslikhats reaches about 30%, like Qostanay (31.6%), Pavlodar (29.6%), and North Kazakhstan (28.1%) and West Kazakhstan (26%) regions. While in some regions the representation of women is almost 30%, in other regions such as South Kazakhstan Oblast the representation of women is less than 4%. However, at the local level there have been significant improvements in the judiciary (51% of the judges in the regional courts are women).



Gender equality: demographic and economic dimensions

Men’s life expectancy at birth in Kazakhstan is 64.6 years and women’s is 74.1 years; gross national income per capita for men is \$26,867 and for women is \$15,408. Expected and mean years of schooling for men are 14.7 and 11.5 respectively. For women, they are 15.4 and 11.3. Kazakhstan’s population trends are also displayed in the report. It is expected that by 2030, the country’s population will reach 18.6 million people. The HDI currently estimates it at 16.6 million (although the official statistics within Kazakhstan already put the number at above 17 million). The annual growth rate has been 1% since 2010. The urban population is 53.3%. The fertility rate is 2.4 births per women. Before 2010, it was 2.0.

In Kazakhstan the labour market shows vertical segregation, meaning that women lack representation in leadership positions across the different sectors of the economy. Recent legal efforts and measures in Kazakhstan are aiming to

increase women's representation on boards in private sector. However, women are still underrepresented in top corporate jobs. According to the World Bank, 33.3% of small private enterprises have women managers and only 9.8% of large corporate firms have top women managers. This implies there still remains room for improvement and efforts should be taken to increase women's access to leadership in private sector.

The gender gap is relatively low in Kazakhstan but labour market outcomes portray differences between women and men. The labour market in Kazakhstan is characterized as having high female participation, skilled workers and low unemployment rates. However, women are mainly self-employed meaning that women are less likely to have formal working arrangements lacking decent working conditions and proper social security benefits. Women also represent more than 70% of the total employees in sectors that are traditionally for women such as health care and education. Sectors such as the latter as well as food services, financial services and insurance demonstrate a high proportion of women workers. However, these are all sectors with low paying wages²⁵ and account for only 2% of Kazakhstan's GDP²⁶. In 2009, women made up 59.2% of the informal sector of the rural population and this number continues to be relatively the same representing missed opportunities for inclusive growth. Since 2000, the labour participation rate of the population in Kazakhstan for people 15 years of age and above has been around 72%. This figure remained the same for 2011. In regards to wages, the gender pay gap is below 10%. This figure can be higher in a number of OECD countries. However, despite this the gender pay gap is clearly present.

In April 2016, Secretary of State Abdykalikova announced that the proportion of women in business has increased from 38% to 50% since 2006. In addition, Kazakhstan took the 25th place in the ranking of countries according to the proportion of working women of the WEF's 2015 Global Competitiveness Index. Since 2010 female unemployment rate declined from 6.6% to 5.7% in the country. At the general level of economic activity of the population of Kazakhstan 71.7% in 2015. The level of economic activity of women was lower (66.7%) than men (77.3%), due primarily to more early retirement, and because of the earlier termination of employment. Despite the fact that the unemployment rate of the population over the period from 2008 to 2015 had a downward trend (2008: 6.6%; in 2015 - 5.1%), the level of female unemployment remains high in comparison with the male unemployment. Ratio of wages between men and women is 67.8% in 2015, while in 2010 it was 63.8%.

According to JSC "Entrepreneurship Development Fund" Damu 1,280 small and medium-sized enterprises (SMEs) headed by women granted loans in 2015, and the amount of credit amounted to just over 19 billion tenge. The total number of active SMEs headed by women amounted to more than 325.4 thousand units, or 41% of the total. Most of them are individual entrepreneurs - 84.6%. The largest number of women entrepreneurs are concentrated in sectors such as wholesale and retail trade; repair of motor vehicles and motorcycles (50.3%), agriculture, forestry and fishing (16.6%), other services (9.4%) and real estate activities (6.6%).

National Commission for Women Affairs, Family and Demographic Policy

The leading institution on gender issues in Kazakhstan is the National Commission for Women Affairs, Family and Demographic Policy under the President, which has become an effective platform for dialogue between the government, civil society and international organizations. The National Commission on Women's Affairs, Family and Demographic Policy is an advisory body to the President of the Republic of Kazakhstan directly subordinate and accountable to him, with its Secretariat located under the Administration of the Presidency. The National Commission for Women's Affairs, Family and Demographic Policy is tasked to provide oversight in ensuring the effective implementation and monitoring the gender policy. The National Commission consists of 23 permanent members appointed by the President. It is chaired by Secretary of State Abdykalikova. Members of the Commission include deputies, representatives of state bodies, national companies, teachers, business women and representatives of civil society. The Commission also has an Expert Council consisting of NGOs and academia. Members are appointed by the Chairperson of the Commission on a permanent basis. While the Commission meets as necessary but at least four times a year, the Council meets only on the instruction of the Chairperson on an irregular basis. Both the Commission and the Expert Council are not funded and work on a voluntary basis. The

²⁵http://www.oecd.org/edu/school/OECD%20School%20Resources%20Review_Kazakhstan_FINAL_CRC_with%20cover.pdf

²⁶ <http://www.adb.org/sites/default/files/institutional-document/34051/files/kazakhstan-country-gender-assessment.pdf>

National Commission is composed of eminent individuals who play important roles in the country's development. While such composition may provide an important soft power to the Commission for influencing the country's agenda, limited institutionalisation of the gender machinery and more specifically, central gender institution, and its dependence on individuals risk mitigating the longevity and sustainable commitment and integration of gender equality efforts across the government.

In addition to the National Commission for Women's Affairs, Family and Demographic Policy, all regions in Kazakhstan as well as the cities of Astana and Almaty have regional commissions placed under the office of the *akim* (head of the local executive branch). Members of the regional commissions are appointed by the akims on the advice of the deputy *akim* who chairs the regional commission. The members of the regional commission meet 4 – 5 time per year. During these meetings, *akimats* (local executive bodies) provide information on the implementation of the 3 year action plans for gender equality. The members of the Commission orally assess the activity of the *akimats* on gender equality, oversee achievements and provide feedback. In parallel to the central gender machinery, the regional commissions are composed of eminent individuals who exercise an important soft power over *akimats*.

Gender equality strategy: 2006-2016 and 2017-2025

The leading document in the gender area is the Strategy for Gender Equality in the Republic of Kazakhstan for 2006-2016 approved by the Decree of the President of the Republic of Kazakhstan dated November 29, 2005 number 1977 is a document of national importance, consolidating a set of interrelated measures and actions aimed at achieving the common goal of plans - the creation of conditions for the realization of equal rights and opportunities for men and women enshrined in the Constitution of the Republic of Kazakhstan and international documents, adopted by Kazakhstan.

It should be noted that this Gender Equality Strategy is the first ever adopted in the history of independent Kazakhstan. At that time point the document was an innovative instrument opening a new stage in the social policy of the state to ensure a stable balance on the level of gender relations of the social sphere in general and provides, inter alia, the introduction of gender knowledge society education and awareness of the system of the necessity of legal and gender equality. Development of the project was the result of the constructive cooperation between the women empowerment CSOs, state bodies and international stakeholders (UN agencies and OSCE).

2016 marks a decade of implementation of the strategy and UNDP in the framework of the gender project provides technical support to conduct its evaluation, a comprehensive assessment of the implementation of the strategy, results, problems and limitations, as well as the determination of the effectiveness of implemented activities compared to envisaged goals and objectives, develop proposals for the improvement of gender policy in Kazakhstan.

UNDP is assisting the Government of Kazakhstan, represented by the National Commission for Women Affairs, Family and Demographic Policy under the President of the Republic of Kazakhstan, to develop a new program of country-level document, based on a comprehensive gender-based campaign with a clear detailing the implementation of its instruments at all levels of government and all actors interact, defining the conditions for the formation of gender policy: the state; civil society; international organizations and the donor community.

The new document will integrate the gender mainstreaming in the policies of central government bodies and regions on gender equality policy format project development level and will consist (but not limited) following focus areas:

- The effect of gender inequality on economic and demographic loss
- Gender-oriented economic policy
- The empowerment of women in social and political life
- A gender approach to planning in the field of social policy
- Gender criteria for the development of culture, science and education
- Gender issues in the health and prospects of their solutions
- Achieving gender equality in the family

- Strengthening the family and the role of the father in the upbringing
- Prevention of gender-based violence
- Gender requirements for information policy
- Women's participation in peace and security

In Kazakhstan, while the state budget does earmark funds for gender related activities, gender responsive budgeting is a fairly untapped tool. Although, in principle, integrating a gender approach in the formulation of budgets is articulated in the Gender Strategy, its application remains lagged. In the implementation of the Gender Strategy, the public budgets are allocated to achieve output indicators rather than focusing on the outcome results. Efforts are needed to refocus the resource allocation process towards greater linkages with expected results. In order to effectively allocate public budgets, Kazakhstan may benefit from setting fewer and more measurable objectives and better targeting output and outcome indicators for gender equality through an evidence-based analysis of policies and programmes which allow for effective evaluation and monitoring.

Gender issues in the project

The overall outcome of the project will be an increased installed capacity of wind and solar power (MW) and lifetime renewable energy production (MWh) with associated reductions in GHG emissions and wider opportunities for gender mainstreaming in capacity building, financing and employment. The project will involve gender mainstreaming opportunities in the establishment of MRV, where users will be trained on data collection and analysis; training and awareness-raising for commercial banks on performing due diligence for small-scale RES projects, and development of technology database and a mechanism for continuous update and systematic enforcement. The project will involve an in-country gender expert in developing gender-disaggregated data and indicators to ensure equitable gender representation.

The “RES for Life” components of the project will allow women in rural and urban areas to benefit greatly from improved energy services in the form of heat and power generated from renewable energy sources. These improvements could ease women’s workloads, reduce the time spent on household tasks such as cooking and cleaning, and could provide improved comfort and reduced vulnerability during the heating season.

Gender issues are mainstreamed in the design of components 2 and 3 of the project as follows:

- Component 2 “Renewable Energy for Life: Policy Derisking”: at least 50% of beneficiaries for training and capacity building related to RES are women and/or women-headed organizations (i.e. Associations of Apartment Owners, SMEs, farming communities);
- Component 3 “Renewable Energy for Life: Financial Derisking and Financial Incentives” at least 50% of beneficiaries for project-supported “Renewable Energy for Life” applications in cities and rural areas will be women.

The project also addresses gender aspects in the following ways throughout the life cycle of the project:

- The project applies a gender marker as per UNDP guidance;
- The project incorporates gender issues in the project results framework, including gender-sensitive actions, indicators, targets, and/or budget;
- The project will monitor the share of women and men as direct beneficiaries;
- An analysis of women’s inclusion in project activities will be included in both the mid-term evaluation and the terminal evaluation of the project and will be explicitly stated in the terms of reference for those evaluations.

Table G.2. Gender-related indicators and targets from the Project Results Framework

Indicator	Baseline	Midterm Target	Final Target	Assumptions
Outcome indicator 2.2: Knowledge of small-scale applications in rural and urban areas	RES projects are perceived as more risky, expensive and second class energy supply options compared to traditional energy sources	Developed awareness raising media campaign and short-, medium- and long-term communication strategy to support development of RES. The communication will reflect gender perspectives, channels and needs	At least 25% of women and 25% of men in target stakeholder groups understand the benefits and risks of renewables and support their development	Key stakeholder groups are willing to participate in capacity building and awareness raising activities and have access to the right media sources

Gender is less central to other program activities, but those too are also aligned with gender mainstreaming. The project will analyse any gender-based differences in access to financing and capacity building, and will involve an in-country gender expert in developing gender-disaggregated data and indicators to ensure an equitable gender representation in the selection process for financing, focus group discussions and training. Capacity building opportunities incorporated in the project that will ensure female participation include: establishment of RES technology MRV where users will be trained on data collection and analysis; training and awareness-raising for commercial banks; etc.

Based on this initial assessment of gender issues for the project, no appreciable gender-related risks have been identified.

Consultation and stakeholder involvement

In the project preparation phase, consultation has been carried out with all key stakeholder groups, allowing for equal inputs from both men and women. Every effort will be made to ensure that qualified women will be proportionally represented on the Project Board. Institutions to be consulted on gender issues at national level will include, but not limited to focal points for gender at government ministries, civil society organizations working in the fields of gender and climate change, as well as research institutions and development partners working on gender issues.

Gender Mainstreaming Action Plan

Activities and outputs related to gender are enumerated below in the project’s Gender Action Plan.

Table G.3. Gender Action Plan

Gender-related activity	Indicator	Target	Baseline	Budget (indicative)	Timeline	Responsibility
Project Objective: Promote private-sector investment in renewable energy in Kazakhstan in order to achieve Kazakhstan’s 2030 target for renewable energy	Objective indicator 7: Number of direct project beneficiaries (UNDP mandatory indicator 3)	28,500 people, 50% women	0	N/A	Full project duration	UNDP CO, Project Manager
Outcome 1: Appropriate policies, programmes and capacities are in place to reduce risk and attract investment in small-scale (on-grid and off-grid) renewables						

Gender-related activity	Indicator	Target	Baseline	Budget (indicative)	Timeline	Responsibility
Activity 1.2.1: Carry out training needs assessment, design a training programme, and provide training for local staff-members on large-scale renewable energy development issues. Activity 1.2.2: Organise regular information exchange events, conferences, workshops and seminars on large-scale renewable energy issues.	Number of women representing various agencies who receive training and consultation via this activity	20 women representing at least three agencies, including at least three on study tour	No prior or ongoing training	\$50,000	Study tour in year 1 or 2; other training in years 1-4	Project Manager
Component 2 “Renewable Energy for Life: Policy Derisking“ Outcome 2: Appropriate policies, programmes and capacities are in place to reduce risk and attract investment in small-scale (on-grid and off-grid) renewables						
Activity 2.1.3: Organise and implement training to build capacity of local officials and experts to develop policy interventions for small-scale renewable energy development Activity 2.2.4: Design and deliver training materials to support operation of the MRV system.	Knowledge of small-scale applications in rural and urban areas	At least 50% of beneficiaries for training and capacity building related to RES are women and/or women-headed organizations (i.e. Associations of Apartment Owners, SMEs, farming communities)	RES projects are perceived as more risky, expensive and second class energy supply options compared to traditional energy sources	\$75,000	Project duration	UNDP CO, Project Manager
Component 3 “Renewable Energy for Life: Financial Derisking and Financial Incentives“						
Activity 3.2.1: Arrange and hold consultations with local financial institutions, banks, development finance institutions, institutional investors, and others to identify and refine plans to develop financial derisking instruments. Activity 3.3.1: Carry out a training needs assessment for local banks and other financial institutions to determine priorities for training. Activity 3.3.2. Develop and deliver training for 3 local financial institutions. Training will include technical and financial aspects of small-scale renewables, and	Capacity of the local financial institutions to support small-scale projects	At least one dedicated financial product is developed for support of small-scale RES	Lack of information, assessment skills and track-record for renewable energy projects amongst domestic financial sector. No dedicated financing products for small-scale RES.	250,000	Project duration	UNDP CO, Project Manager

Gender-related activity	Indicator	Target	Baseline	Budget (indicative)	Timeline	Responsibility
environmental and social safeguards. Activity 3.4.1: Financial engagement with small-scale renewable energy projects according to the criteria of the established financial mechanism						
Total relevant budget allocation (indicative):					<i>\$375,000</i>	