

Review of European Bank for Reconstruction and Development (EBRD) Clean Technology Fund (CTF)

Private Sector Proposal :

Kazakhstan Renewable Energy Framework (KazREFF)

1. I have reviewed the EBRD CTF private sector proposal for the Kazakhstan Renewable Energy Framework (KazREFF). On the basis of this review, I **strongly support and endorse** this CTF proposal for the reasons summarised below.
2. **The Program builds** on the EBRD's extensive investment and market development experience in the field of medium- to large-scale sustainable energy, including renewable energy (RE) financing. The Program will bring and adapt these experience and instruments to Kazakhstan and therefore represents an important new initiative.
The RE market in Kazakhstan consists of a number of preliminarily identified, viable, medium- to large-scale projects; therefore it is an appropriate and prudent strategy for the EBRD and the Framework Program to approach this market by means of direct lending instruments.
The EBRD has extensive experience in providing credit resources to financial intermediaries for SME and for sustainable energy sector lending in Kazakhstan as well as in the implementation of advisory services in the sustainable energy and environmental sector. The Framework Program will be expedited by the experience of the local finance sector with the EBRD-supported Kazakhstan Sustainable Energy Financing Facility (KazSEFF).
3. The Framework Program is fully in line with the **CTF objectives and guidelines** in light of a combination of factors, including: (a) the potential for large-scale GHG emission reductions; (b) the cost-effectiveness of GHG emission reductions; (c) the presence of additional costs or risks associated with the GHG emission reduction investment that affect its financial viability; (d) demonstration potential, including scope for replication of results on a wider scale; (e) institutional and market transformation potential; (f) development impact, and (g) implementation potential in the country. The Program can satisfy the above set of criteria in Kazakhstan, and can also meet the purposes of the CTF Investment Plan. It is appropriate to assume a more radical mitigation route than that set out in the CO₂ emission scenarios of the agreed socio-economic development program for 2010 – 2030 presented in Kazakhstan's 2nd National Communication to the UNFCCC.
The Program will deliver substantial CO₂ emission reductions at a comparatively low investment cost with co-benefits, and start the market transformation of power generation in Kazakhstan towards a low-carbon power supply structure. This will be supported by sector reform through introducing feed-in-tariff and secondary legislation. Advisory service support will be needed to improve market frameworks and introduce sound management and governance principles.
4. A large **gap remains in Kazakhstan** between the strong economic and environmental potential of RE projects versus their limited commercial realisation, as documented in the CTF Investment Plan for Kazakhstan. Kazakhstan is well endowed with renewable energy resources in particular solar, hydro, biomass and wind, but only a small fraction of this potential is utilised.
A major cause of this gap is the lack of effective project delivery and financing mechanisms. I note that funding is necessary but by itself not sufficient to develop, finance and implement RE projects. Other services are needed to market RE projects programmatically to aggregated sets of RE producers, prepare projects for investment working through the full project cycle, and build capacities of market actors including: (a) project sponsors and developers; (b) governmental agencies, such as ministries, the regulatory body, local and regional administrations; (c) service companies; (d) utilities including the transmission system operator, and (e) financial institutions.
Successful RE programs combine: (a) access to finance, with financial products structured and

adapted to the target market with (b) project development and project delivery mechanisms that generate a flow of investment projects, along with services that build capacities of market actors to develop the RE generation business on a commercial basis.

5. The **financial instruments** of the proposed Framework Program address the particular needs of the RE project sponsors by the provision of equity financing, long-term debt financing with concessional conditions with long grace periods and even by supplying funds in the local currency. The planned concessional conditions of the financial instruments bear on the one hand the risk of the distortion of the RE market, thereby delaying the transition to commercial viability and the competitiveness of the RE sponsoring companies. They, however, are justified on the other hand by the demand of the young RE businesses in Kazakhstan to overcome their infancy in the near future to meet the RE development targets as set out by the Government of Kazakhstan and to head towards the creation of a self-sustaining industry supporting the development of renewable power generation in Kazakhstan. The distortion risk will be mitigated through an investment focus on sound management, service and environmental practices, linking CTF finance to close the equity gap with appropriate financial pricing levels. The fact that the EBRD is: (a) implementing a roadmap for Kazakh power generation, to design the most suitable generation market model including the introduction of market mechanisms to incentivise investment in new capacity, and (b) supporting the wider renewables agenda in Kazakhstan focusing on the development of sound policy and regulation, will also mitigate these risks.
6. The **associated advisory service (AS)** component will support the development of an appropriate investment environment in terms of: (a) transparent technical rules and regulations; (b) the regulation of technical specifications in particular for the power grid connection; (c) power purchase agreements, and (d) pricing policy considering the cost effects of the feed-in-tariff to the end-consumer tariffs. Crucial elements of the advisory service component are the adoption of new secondary legislation to support RE utilisation, as well as building the necessary institutional capacity for implementation both at the project level and within the enabling institutions such as the regulator and utilities. The above-mentioned roadmap for Kazakh power generation will be complementary to answers on the challenge of transportation of RE generated electricity through the transmission system to the consumption centres of the country. The Program replicates the Bank's successful establishment of Direct Lending Facilities (DLFs) for renewable energy projects in the Western Balkans and Ukraine, applying lessons learnt from both of these, in order to e.g. generate projects more quickly through the early provision of technical assistance (TA) to project developers and advisory services to stakeholders.
7. The Program will have a significant **demonstration effect** by introducing new renewable energy sources into the energy supply structure of the energy intensive and fossil-fuel based economy of Kazakhstan, and in particular demonstrating the bankability of new renewable energy generation in principle. Furthermore, by assisting in the development of approval procedures and project documentation, the Framework Program will help developers establish procedures to demonstrate the bankability of concrete investments which can be replicated and will encourage other developers to enter the market. Once conducive framework conditions and capacities are created, appropriate financing mechanism will be well received by the market, and the enormous RE potential in Kazakhstan can be explored. In addition, a wider market for RE investments in Kazakhstan will trigger the local production of RE technologies to commence the path of "green products" within the development of a sustainable economy. This is well in line with the ambitious plans of the Government of Kazakhstan (GoK) to develop sustainable technology know-how.
8. The **economic development benefits** of the proposed Program will be signified by: (a) improved availability of electric power in the areas of renewable energy development; (b) improved security of power supply in areas otherwise dependent on imported energy (south-east of Kazakhstan); (c) increased employment – especially, in remote/rural areas; (d) increasing private sector involvement by the demonstration of private sector operations in RE production, and (e) reduced local pollution

due to the displacement of coal or other polluting fuels for local energy needs.

CTF investment will increase system efficiencies and reduce GHG emissions, while lowering the overall cost of energy supply to final users, allowing tariffs to be raised. This is expected to lead to a positively reinforcing cycle which will support the transformation of the Kazakh energy supply system to a lower-carbon state.

9. The proposed interventions are fully in line with the MDB strategies in Kazakhstan. In particular the EBRD is engaged in close **policy-dialogue** with the Government of Kazakhstan on a number of issues relating to e.g. renewables and energy efficiency legislation, the Kyoto Protocol, energy budgeting for municipal authorities, and the power sector. This dialogue is based on a Sustainable Energy Action Plan between the Bank and the Government, signed in 2008, and it will be a fundamental element in assuring the implementation of the Clean Technology Fund investment plan in Kazakhstan. As a consequence of the continued and intensive dialogue, there is increasing understanding by the GoK that in order to build new capacity, investors need more assurance on the price/tariff environment.
Furthermore, the Program complements the initiatives of other international TA donors which are active in RE development in Kazakhstan, such as the EC and UNDP as the scope will go far beyond the current practice in the Kazakh RE sector by offering instruments to meet the financial demand of viable RE projects resulting from such TA initiatives.
10. The **challenging elements** for the successful implementation of the Framework Program will be: (a) to establish the complementarity of the financial instruments of KazREFF with national programs, such as the Kazakhstan Business Road Map 2020 and its financing instrument Damu Entrepreneurship Development Fund which targets the support of start-up businesses in new and sustainable technology areas, and (b) to ensure that the foreseen, regulatory advisory services result in a long-term power take-off guarantee within the feed-in-tariff legislation to enable loan debt servicing under commercial terms. Both should be examined and monitored as the Program proceeds.
11. Taken together, the Program's **combination of financing sources, the comprehensive AS component** as well as the EBRD's strong RE financing execution capacities, expertise in financing facilities and track record on sustainable energy policy dialogue in Kazakhstan all constitute a recipe for success. It is hoped that the resulting enabling environment and access to appropriate finance will allow Kazakhstan to bring the total share of RE in the energy balance to 5% by 2024, and as a first step lead to the production of an additional 1 TWh of renewable electricity by 2014.

Respectfully submitted,

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Sources of information for the review:

- (1) CTF Private Sector Proposal Kazakhstan Renewable Energy Framework (KazREFF);
- (2) The Republic of Kazakhstan: The Clean Technology Fund (CTF) Investment Plan, October 2010;
- (3) Assessment of Sustainable Energy investment potential in Kazakhstan (Demand Study), Tebodin, January 2008;
- (4) EBRD KAZSEFF – Kazakhstan Sustainable Energy Financing Facility, Final Report, November 2011;
- (5) Review of Public Consultations on RES Laws – Advice to the Government of Kazakhstan on Developing Feed-in Tariffs for Renewable Energy Sources, September 2010 and
- (6) Review of Public Consultations on RES Laws – Advice to the Government of Kazakhstan on Secondary Legislation Implementing the Renewable Energy Law, October 2009
- (7) Phone interview with:
 - a) Team Leader Mr. Helmut Lorenz of GFA Group, of EBRD consulting project: Kazakhstan Renewable Energy Project Pipeline Preparation
 - b) Senior Expert Mr. Jose Luis-Bobes of Mercados-GreenMax, of EBRD consulting project: Kazakhstan Renewable Energy Market Study

Abbreviations used:

AS	Advisory services	MDB	Multilateral Development Bank
DLF	Direct Lending Facilities	RE	Renewable Energy
EBRD	European Bank for Reconstruction and Development	RES	Renewable Energy Sources
EC	European Commission	SME	Small and Medium Enterprises
GHG	Greenhouse Gas(es)	TA	Technical Assistance
GoK	Government of Kazakhstan	TC	Technical Cooperation
KazREFF	Kazakhstan Renewable Energy Framework	TWh	Terawatt-hour
KazSEFF	Kazakhstan Sustainable Energy Financing Facility	UNDP	United Nations Development Programme