OPERATION EVALUATIONS SUMMARY

Four wind farm projects

Regional

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EBRD EVALUATION DEPARTMENT

European Bank
for Reconstruction and Development

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Overview

This evaluation covers four wind energy projects under five EBRD operations –three in EU EBRD countries of operations and two in Central Asia. The principal reason for evaluating these projects as a group was to assess the presence of common design, execution and performance issues in projects of this type, with a view to extracting valuable insights for similar operations in the future. Of these five operations two were loans, two were equity investments, while one provided both debt and equity. Under all projects the Bank financed construction of wind farms. All projects have been completed and are operational.

All four projects were affected by an uncertain and shifting policy and regulatory environment. Generally, the policy and regulatory context was relatively well defined at project approval and during implementation, providing relatively generous support to the renewable energy sector. However all four governments subsequently sought to limit their support for the sector, resulting in a much less favourable operational environment. This evaluation concentrates on this particular common aspect of the operations – fluctuating support policies and regulatory environment in the renewables sector – as well as on the Bank's policy dialogue intended to stabilise or improve them.

Operating environment

Common themes affecting the projects were the following:

Regulatory

There has been a long period of policy and regulatory uncertainty in three of the EU countries. Such uncertainty was substantially reduced only in July 2014, when EU Guidelines on State Aid for Environmental Protection and Energy provided a clear reference for the new policy based on auction system. However, details of a regulatory regime under this system are still being worked out and some uncertainty still exists.

All projects underperformed financially, mostly due to the tariff structure. Particularly two countries experienced a large disparity between feed-in tariffs and end-user tariff levels, and were faced with a cost recovery tariff affordability issue.

Regulatory agencies in three countries have recently been offered capacity building TCs by the Bank. However their view was that the demands of implementing the new regulatory regime may prevent them from accepting these TCs.

The relationship between renewable generators and transmission companies played a key role in the performance of all projects.

Policy dialogue

The projects generally missed most transition impact benchmarks (outcomes and impacts); however when policy dialogue is taken into account (which, with the exception of the project in Central Asia, was initially largely unintended activity), overall impact appears stronger and more positive.

The Bank's policy dialogue work was sometimes viewed by policy-makers as being self-serving, particularly where the Bank had equity at stake.

Development of alternative renewables

Development of alternative renewable energy technologies (such as solar, biomass), combined with inadequate pricing of their operations, adversely affected wind projects in two countries; coal-biomass changed the economics of renewable investments in another.

Project results

EvD rates two projects as '*good*' (A and B) and two '*acceptable*' (C and D).

Project A was completed on budget and on time, it has been operating well, however decreasing demand for electricity in this EU country, as well as a drop in electricity tariffs and Green Certificate prices resulted in the project's financial underperformance by 20 to 25 per cent. The Bank's policy dialogue contributed to the government ultimately deciding not to retroactively apply new regulations to existing wind power operations. All the transition benchmarks for the project have been achieved, although in EvD's view they were not very ambitious. As the largest wind energy farm in the country, with strong support from the local administration, the project made a positive demonstration impact on municipalities.

Project B, in Central Asia, required unusually intense preparatory support from the Bank and its consultants to commence at all. The Bank played a critical role in redrafting its Power Purchase Agreement, to make the project bankable. Project completion was delayed by six months and there were some technical issues during the beginning of the operational phase. Financial performance has been about 20 per cent below projections due to lower tariffs and curtailment of electricity deliveries from the wind farm by the state transmission company (although the borrower has managed to produce positive cash flow and service its debt in full and on time). Out of 11 of the project's transition benchmarks (currently applicable) three were achieved fully and one partly. The remaining delayed benchmarks were both ambitious and slated for rapid accomplishment; policy dialogue continues but without specificity on a timetable for further progress. Although the project has not progressed smoothly and is a borderline case, EvD rated it overall as '*good*' due to the Bank's high additionality, and the Bank's considerable policy dialogue in this ETC country.

The Bank's equity investment in Project C helped the investee company to complete the construction of seven wind farms in another EU country. The original plan envisaged the completion of ten farms (some with a larger capacity than was eventually constructed), however the company slowed down its investments due to uncertainty regarding the renewable support policy, which emerged shortly after the Bank's investment. The Bank

has been involved in intense policy dialogue with authorities, which did not, however, prevent the provisions of a draft amendment to the Electricity Market Act being applied retroactively to existing wind power operators. Out of four transition benchmarks only one has been partly achieved. The Bank exited the company at the end of 2014, recovering its investment, although it produced slightly negative internal rate of return. It is possible the Bank should have waited longer to exit, as better financial results were expected in 2015, and more market stability due to the new law now being largely adopted.

The implementation of Project D was delayed by 18 months and it was also negatively affected by periodic changes to renewable energy support rules (lower tariffs, imposition of arbitrary fees and charges on wind generators) and delayed payments from the transmission company. The borrower has struggled to meet its financial obligations despite the wind farm's output being above forecasts. However, it has not been an entirely unsuccessful operation. The Bank's policy dialogue on renewable energy policy in this EU country has been closely coordinated with that of other IFIs and it might have contributed to the government's recent measures to ensure the sustainability of the support mechanism to existing renewable energy projects (although attribution is difficult due to the many IFIs involved in such a policy dialogue). There are also signs that the borrower's financial situation may improve in the future. Out of four transition impact benchmarks, one was fully achieved, while two were partly achieved. The project presents a wealth of valuable lessons for the Bank's future operations in this sector.

Below are more general findings and recommendations, stemming from these individual observations, which cut across sectoral issues and which might have wider applicability to future operations.

Principal findings

Below are more general findings which cut across sectoral issues and might have wider applicability to future operations.

State dependencies

1) Renewable energy operations in the four projects' countries would not be viable without non-market pricing elements, claiming public resources and susceptible to policy reversals. Disparities between relatively high renewable feed-in tariffs and low end-user electricity tariffs have been at the heart of the problem in most countries. Highly politicised, the issue remains largely unresolved in many countries.
2) Renewable energy policies and regulation have been in constant flux. As maturing technologies reduce investment costs, while renewables reach a substantial share of the market, governments try to reduce their support, introducing market mechanisms and limiting the burden on the state (or transmission company) budgets.

Regulatory reform

1) Ultimately, it was the EU, rather than any of the IFIs, which provided clear guidance on the new renewable energy policy, which was accepted by all three EU countries. New EU Guidelines on State Aid for Environmental Protection and Energy (2014) aim to better integrate renewables into internal power markets, limiting support to what is necessary.
2) All projects were affected by largely unanticipated regulatory changes. Additional unexpected risks affected selected projects, including development of new alternative renewable energy technologies, new cross-border electricity connections, and payment delays from the off-takers.
3) Regulatory agencies and other governmental entities, to which the Bank has recently offered capacity building TCs, have limited staff resources and little available time due to the tight implementation schedule for the new EU (or national) regulations. This may prevent them from taking advantage of these TCs (that is, a lack of capacity to be trained in building capacity).
4) In Central Asia, the Bank adopted a successful "gradual approach", initially providing a comprehensive TC to identify regulatory gaps and then small seed capital through the first transaction for project preparation. Only after preparatory work was completed, did the Bank provide capital investment loan and equity top up.
5) All four projects have been adversely affected by policy changes (or gaps in the regulatory environment in the case of the project in Central Asia), which had a strong impact on their financial underperformance.
6) Countries achieving or approaching their 2020 renewable energy targets agreed with the EU are likely to reduce their support most aggressively, often applying regulatory changes retroactively to existing operations.

Policy dialogue efforts

1) The Bank's policy dialogue was in most cases not specifically planned. However, the Bank quickly reacted to policy changes in three countries, ultimately engaging in relatively active policy dialogue; in a fourth, policy dialogue was more systematic from the outset. Such dialogue was initially focused primarily on protecting Bank client interests (and to certain extent its own) by conveying "best international practice" in order to prevent the retroactive application of regulatory changes, which in all cases were intended to reduce support to renewable energy generators. Later, the Bank expanded its policy dialogue, which focused on wider aspects of renewable energy policy and regulation, often aiming at preventing or cancelling discriminatory fees or charges. Some efforts were also directed towards developing legal arrangements, enabling implementation of renewable energy projects for

the first time. The Bank has also met with the off-takers to explain the damaging effects of curtailing offtake or failing to pay invoices in full to generators.

2) The results of policy dialogue have been mixed. It has been most effective at the project level, for example, successfully amending the PPA in the country in Central Asia and enabling the first renewable energy project there. In most countries the Bank has been seen as playing a positive role as "one of many voices" (within the international community comprising other IFIs and organisations), warning against retroactive application of new policies. It is arguable that Bank engagement contributed to inclusion of the "grandfathering" clause in the new renewable energy law in one EU country. However, the Bank was less successful in other EU countries in this respect, though its efforts in one contributed to revocation of some punitive charges imposed on renewable generators. In some countries the Bank has been seen primarily as a financial investor in the renewable energy companies and its policy advice consequently perceived as not entirely neutral.

Recommendations

1/ As the EU leads the policy dialogue on renewable energy in member states, cooperate and coordinate with it even more closely through EBRD policy dialogue work. Sharing information, holding joint meetings and conveying similar messages to governments and regulatory authorities should increase the effectiveness of the Bank's dialogue.

2/ Clearly identify policy gaps and discuss all intended policy dialogue activities and objectives related to a project with policy-makers up front, resulting in clarity as to agreements, goals and responsibilities. Where other IFIs/actors are involved in policy dialogue, identify the links (if any) with the Bank's plans and coordinate actions.

3/ Comprehensively analyse and clearly present in the Board report all relevant policy and regulatory factors affecting the project, including market entry and pricing-related factors. Clearly discuss and stress-test all policy and regulatory-related assumptions. Pay particular attention to potential impact of alternative renewable technologies, upcoming cross-border connections and the off-taker risk.

4/ Disclose any affordability, lifeline, graduated or discriminatory pricing issues, with any/all specific commitments and assumptions laid out plainly in project documents. Where subsidy components are present, specifically discuss assumptions and projections regarding sustainability and ways of achieving market pricing.

5/ Consider twinning programmes with regulators (in more advanced countries) as an alternative to standard TCs. Focus them on only selected, priority and practical aspects, particularly when the beneficiary is faced with implementing a new regulatory regime.