



Dunia Frontier Consultants

Washington, DC Dubai
www.dfcinternational.com

1. DFC Case Study: Onshore Wind — Project Due Diligence for a Private Equity Fund

Background and Key Issues

An India-based private equity fund wanted to diversify outside of India and invest in energy assets. Analysts for the fund identified a potential opportunity in Nicaragua meeting their required return and time horizon. The project involved the construction of an onshore wind farm in the western part of the country. Lacking experience in both the region and in the technical aspects of wind energy, the fund contacted DFC and asked for the following services:

1. Provide an overview of electric markets in Nicaragua.
2. Confirm the wind resource data provided by the developer.
3. Visit the site of the proposed farm and ensure it meets the specifications provided by the developer.
4. Meet with stakeholders in the area to ensure they would not block the wind farm development and the developer had all necessary permits.
5. Leverage DFC's experience and contacts with Washington, DC-based development banks to determine the availability and costs of services that could add value to the project.

DFC Contribution

DFC contacted its associates working in Nicaragua to begin developing up to date information on the region's electric markets. Data from DFC associates indicated the market was favourable for investment in electric power plants due to an electric capacity shortage, relatively high wholesale electric rates, availability of long-term power purchase agreements with the national electric distributor, availability of a spot market, and adequate infrastructure to handle the output from the proposed wind farm. One problem noted was the passage of a recent law by the national legislature mandating a price cap on the spot price of power from renewable energy systems. The price cap was a potential problem for a wind project.

DFC contacted the United Nations and the US National Renewable Energy Laboratory and secured macro data for wind resources in the region. DFC associates in Nicaragua then contacted local energy consultants and procured data from meteorological stations near the proposed wind farm site. The macro data, information from the consultants, and data from the weather stations confirmed the wind data provided by the developer. As DFC found, the wind resource was not only adequate for a wind farm, it was among the best in the world and would accelerate the return on investment.

DFC's associates scheduled a series of meetings with stakeholders. A representative from DFC with expertise in wind power attended a series of meetings with the developers, the electric utility, real estate agents, landowners, and government ministries. During the meetings, the DFC representative found stakeholder reaction was positive toward the development of a wind farm. By meeting directly with the Ministry of Energy, DFC determined the price cap on

wind energy applied to the spot market, but not long-term power purchase agreements (PPAs). DFC also confirmed the developer had the necessary permits required by the government. DFC subsequently met with the utility and determined PPAs were possible and could be negotiated with the utility and/or commercial entities requiring large amounts of power.

Visits were also made to the proposed site for the wind farm. DFC estimated the requirements for road construction and power line construction in order for the farm to be viable. The DFC estimate matched the developers and indicated a relatively low cost for developing the site. The ports and roads leading to the site were adequate for transport of wind turbine towers and equipment and the primary transmission line for the country was within a few kilometres of the site.

A DFC representative met with development agencies in Washington, to include the World Bank, International Finance Corporation (IFC), Interamerican Development Bank (IDB), and Overseas Private Investment Corporation (OPIC) to discuss the project. Both the IFC and IDB expressed interest in providing debt for the project. The IDB was also willing to back the project by providing loan guarantees. OPIC could provide political risk insurance if at least 50.1% of the funds committed by the fund were from US sources.

Results and Value Delivery

DFC confirmed the validity of the investment and delivered a report providing essential information on the costs and benefits of the project. By leveraging existing contacts and performing much of the groundwork, DFC saved the fund from having to commit time and in-house assets for doing the same. DFC was able to provide the due diligence in a shorter period of time than the fund could have done itself and enabled the fund to focus on deal flow. The project itself was determined to have an IRR greater than 20%, a simple payback period of less than three years, and to provide consistent cash flows for up to 20 years.

2. DFC Case Study: Turkish Biofuels — Energy Project Deal Sourcing

Background and Key Issues

While working in Turkey, a DFC representative met a biofuel project developer. The developer had generated a business plan and secured the necessary permits to build a biodiesel plant. He intended to source oilseeds from local farms and had secured agreements to do so. The oilseeds would be processed at his plant and converted into animal feed and biodiesel. The biodiesel would be sold to buyers in the European Union. The developer indicated that he had a bank willing to provide debt for the project, but was looking for equity partners and wanted DFC's assistance in doing so.

DFC Contribution

DFC reviewed the business plan and financial model provided by the developer. Upon completion, DFC leveraged associates in Turkey and knowledge of international biofuel markets to determine the feasibility of the project. After determining the project was both technically and economically feasible and had the potential to provide a reasonable return to investors, DFC assisted the developer in creation of an investor packet. These materials were taken to funds with which DFC had existing relationships and would be interested in the type of project proposed.

Results and Value Delivery

DFC brought the project to a GCC-based fund that expressed interest. DFC provided the investor packet and an additional report DFC developed based on the due diligence performed. The existing relationship between the fund and DFC helped expedite the investment process. The developer secured the equity needed for the project and the fund received a sound investment requiring minimal time to close.

3. DFC Case Study: Oman Solar — Project Consulting

Background and Key Issues

A commercial entity in Oman believed solar power could be a good investment for improving reliability of energy for remote sites and could reduce the costs of the firm. The company was interested in determining the technical and economic feasibility of investing in solar power. Further, they needed to know the best technologies available and the best way to financially structure the project for maximum return on equity. Knowing DFC had experience in both solar power and the Middle East, the company contacted DFC.

DFC Contribution

DFC reviewed available data on the solar resources at each site. Through site visits and review of technical data, DFC also determined the power requirements of each site. After determining that solar power was a technically feasible solution, DFC developed a financial model for the project that maximized return on equity by leveraging investors, carbon markets, and other sources favourable to renewable energy. Upon completion of the technical and financial model, DFC provided a short list of contractors capable of building the power plants.

Results and Value Delivery

The client received feasibility study, financial model, budget estimate, and contacts with contractors who could build the project. DFC also provided access to carbon markets, which improved the return on investment, and access to investors interested in renewable energy projects. DFC's client implemented the solar power project with a positive NPV and hit its target return on investment.