



WORLD BANK GROUP

THE WORLD BANK
IBRD • IDA

IFC
International
Finance Corporation

MIGA
Multilateral Investment
Guarantee Agency

FINANCIAL SOLUTIONS BRIEF

ARGENTINA

Renewable Energy Auctions

PROJECT HIGHLIGHTS

- The Government of Argentina launched a program to promote private investment in renewable energy. The World Bank's support started with helping design the program. The Bank also helped in reviewing bid documents, and devising a risk mitigation structure.
- Structuring involved a \$480 million guarantee from the International Bank for Reconstruction and Development (IBRD). It backstops critical aspects of Argentina's payment obligations.
- The World Bank reached out to the global investor base and participating in investors' road shows. This enhanced the program's attractiveness.
- World Bank support helped Argentina unlock its renewable energy potential. About \$3.2 billion of mostly private investment was mobilized.

Argentina has some of the world's best renewable energy potential but financing the opportunity to explore it has been challenging. In early 2016, the Government of Argentina launched the RenovAr initiative. It is an auction-based renewable energy program designed to scale-up private renewable generation capacity. The RenovAr scheme helps address the key constraints to Argentina's development of renewable energy. These include poor access to long-term funding sources and perceptions of high country and sector risks.

To further enhance the confidence of investors and financiers, the World Bank Group (WBG) supported the preparation of the first RenovAr tenders and provided a \$480 million guarantee to backstop certain government obligations under the program. In doing so, the WBG support helped Argentina unlock its renewable energy potential by creating a market and mobilizing about \$3.2 billion of mostly private investments.

PROJECT DESCRIPTION

While Argentina has abundant renewable energy resources and needs to expand its generation capacity to meet growing demand, it was unable to exploit them. For example, the share of renewable sources of Argentina's electricity production was just 1.8 percent in 2015 and not reflective of the country's potential. In response, the Government of Argentina (GoA) decided to address this situation, launching the RenovAr program in May 2016. The goal of the program is to increase the share of renewable energy production to 8 percent in 2017 and 20 percent in 2025.

RenovAr aims to increase renewable generation developed by private investment through competitive auctions. CAMMESA, the wholesale energy market administrator, is the offtaker and signatory to Power Purchase Agreements (PPAs) awarded to private Independent Power Producers (IPPs).

To facilitate financing, the GoA implemented the Fund for the Development of Renewable Energy (Fondo para el Desarrollo de Energías Renovables or FODER) created by the renewable energy law (Law No. 27191) of September 2015. FODER was set up to provide guarantees, direct financing (debt or equity) and other financial instruments. The "Banco de Inversión y Comercio Exterior" (The Investment and Foreign Trade Bank - BICE) administers FODER as its trustee.

Initially, the primary instrument of FODER is a payment guarantee designed to cover: (i) ongoing PPA payments (i.e. liquidity support), and (ii) termination payment obligations arising from the rights of the IPPs to sell their project (a put option) to FODER if specific macroeconomic or sector risks materialize. This termination coverage is typically required by the private sector in emerging markets.

CONTEXT

Given unfavorable macroeconomic and energy sector conditions, renewable energy projects in Argentina have long struggled to raise financing. They faced limited funding capacity from local sources and a lack of access to external long-term financing.

Before launching RenovAr and to better understand private sector investors and financiers' appetite, the Ministry of Energy and Mining, with World Bank Group support,

conducted investor roadshows in the United States, Europe and Argentina. International investors were interested to return after years of absence but were cautious given (i) Argentina's track record in the last 15 years of significant policy reversal and non-compliance with contractual undertakings (i.e. political risk), and (ii) their lack of recent experience financing energy sector projects in Argentina.

The risk mitigation instruments provided by the GoA via FODER and BICE were welcomed by potential financiers. However, FODER was a new institution with a limited track record. Investors therefore indicated that additional support was needed to catalyze long-term financing for the program.

To enhance the likelihood of success for RenovAr, the GoA requested a guarantee from the World Bank's International Bank for Reconstruction and Development (IBRD) to backstop critical aspects of GoA's payment guarantees through FODER.

PROJECT IMPLEMENTATION

ROUND 1

In July 2016, CAMMESA issued a first Request for Proposals (RfP) under the program ("Round 1") for 1,000 MW of renewable energy capacity under 20-year PPAs. The RfP included a term sheet describing the conditions for an optional IBRD guarantee. There was a strong investor response to Round 1, gauged by the 123 bids received by CAMMESA. In aggregate, these bids offered installed capacity of 6,343 MW (more than six times the amount requested).

In October 2016, 29 projects were awarded with an average price of 6.13 US¢/kWh and a total of 1,142 MW. The average bid price was lower than the 2015 average generation price of 7.05 US¢/kWh. The technologies awarded were wind (707 MW), solar photovoltaic (PV) (400 MW), biomass (15 MW), small hydro (11 MW), and biogas (9 MW) spread across 14 provinces.

ROUND 1.5

To take advantage of strong investor interest and increase the generation of renewable energy in under-represented provinces, CAMMESA issued Round 1.5 for 600 MW in October 2016. In November 2016, 30 projects were



awarded, totaling 1,281 MW. The average awarded price was lower than for Round 1, i.e. 5.33 US¢/kWh for wind (5.94 US¢/kWh in Round 1), and 5.44 US¢/kWh for solar (5.97 US¢/kWh in Round 1). The technologies awarded were wind (765 MW) and solar photovoltaic (PV) (516 MW) distributed across 12 provinces.

WORLD BANK (IBRD) GUARANTEE

In Round 1, 15 of the 29 awarded projects, with a total installed capacity of 590 MW, requested the IBRD guarantee for a total value of \$295 million. For Round 1.5, 12 of the 30 awarded projects, with a total installed capacity of 443 MW, requested the IBRD guarantee for a total value of \$185 million.

The total IBRD guarantee was therefore \$480 million for 1,033 MW covering 27 different projects (12 wind projects for 721 MW, 10 solar PV for 306 MW, four small hydropower for 4 MW, and one biogas for 1 MW). Bidders were given the option to select the IBRD guarantee tenor of up to 20 years. The average tenor chosen was 16 years. The table below summarizes these outcomes.

IBRD GUARANTEED PROJECTS - ROUND 1 & 1.5

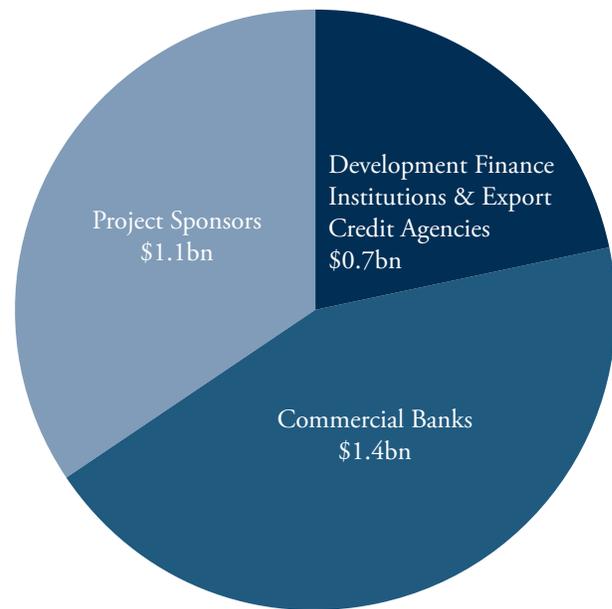
	# Projects	Power Capacity (MW)	Guaranteed Amount (\$ million)	Guaranteed Term (years)
Round 1	15	590	295	15
Biogas	1	1	1	8
Wind	9	484	242	13
Small hydro	4	4	2	20
Solar PV	1	100	50	20
Round 1.5	12	443	184	18
Wind	3	237	118	17
Solar PV	9	206	66	19
Total	27	1033	479	16

FINANCING

The projects awarded in Round 1 and 1.5 require an estimated \$3.2 billion of investments. It is expected to come from a mix of private sponsors' equity, and debt from (i) development finance institutions such as the International Finance Corporation (IFC), (ii) export credit agencies,

and (iii) commercial banks. A number of projects will be financed with a project finance structure although possibly with limited recourse to the sponsors.

GRAPH 1.
EXPECTED FINANCING OF ROUND 1 & 1.5



INNOVATION IN USING THE GUARANTEE INSTRUMENT

The IBRD guarantee backstops the GoA should it fail to fund FODER when it is called on to pay a put price to eligible renewable energy projects as a result of IPPs exercising a put option under their Trust Adhesion Agreement with FODER. Thus, the IBRD guarantee indirectly mitigates country risks and thus reduces risks and financing costs for IPPs.

By providing the guarantee support to FODER as a financial intermediary, the World Bank enabled a program of renewable energy projects. This is the first payment guarantee undertaken by the World Bank at a program level.

Support to RenovAr went beyond the provision of a guarantee. It started with helping design the program, develop bid documents, and devising a risk mitigation structure throughout preparation. The World Bank and IFC advised GoA based on international experience, with a focus on ensuring a fair and balanced project risk allocation between the private and public sectors, minimizing public

sector support, and ensuring success of the program in the market.

The World Bank also supported the GoA by reaching out to the global investor base and participating in the investor road show, thereby enhancing the program’s credibility and attractiveness.

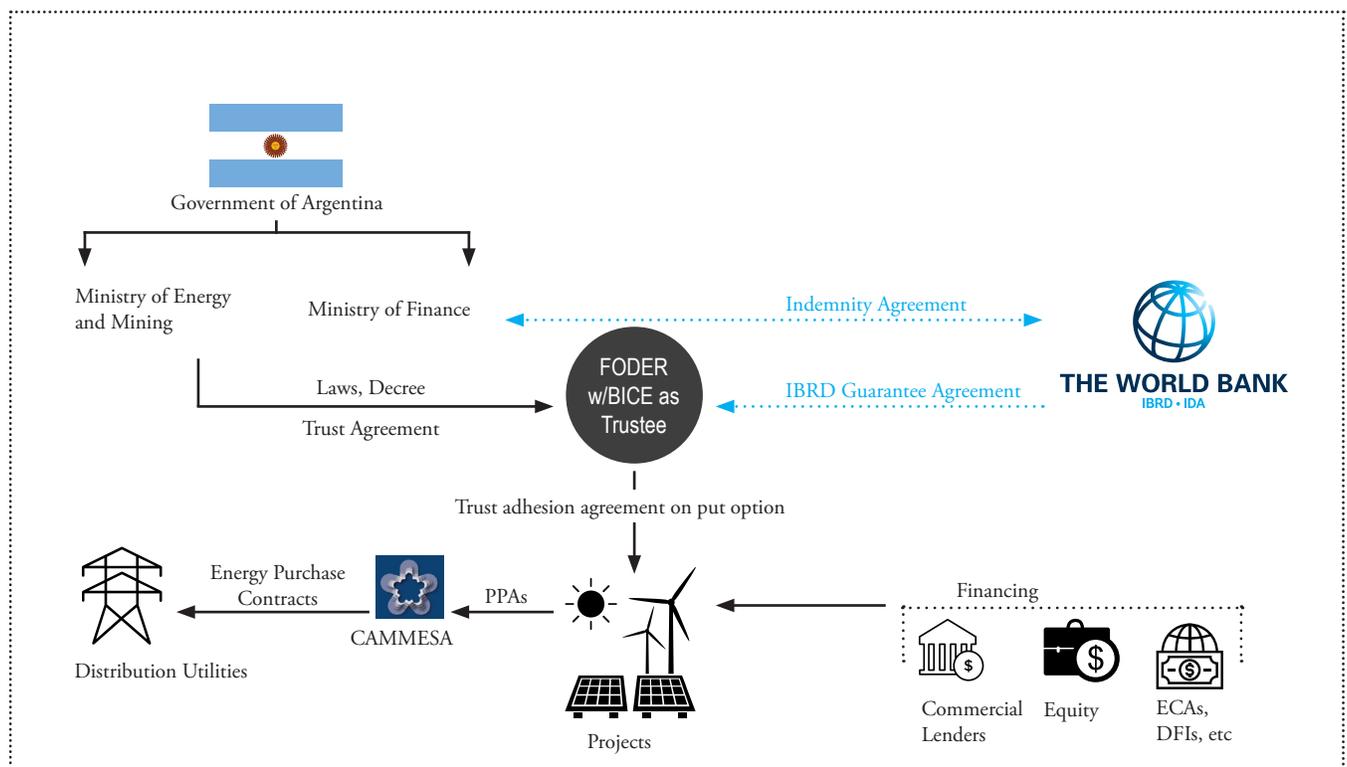
BENEFITS OF WORLD BANK GROUP SUPPORT

In its first nine months, RenovAr awarded 2.4 GW of renewable energy generation capacity, around 7 percent of the current installed capacity in the country. This substantially boosts the GoA’s ability to meet its renewable energy targets. Argentinian customers will now benefit from a clean and indigenous power supply at competitive prices.

The WBG support is helping leverage about \$3.2 billion in renewable energy financing with \$2.5 billion from commercial sources. Discussions with GoA, bidders, and lenders indicated that this engagement played a critical catalytic role in attracting the large number of bids in these initial auctions rounds. Support should decrease over time as Argentina rebuilds its track record and investor confidence grows.

The WBG has helped a middle-income client country diversify its energy matrix and meet its climate goals. Power plants under Rounds 1 and 1.5 will reduce greenhouse gas emissions by about four million tons of CO2 per year over 20 years, around 4 percent of Argentina’s National Determined Contribution target for 2030.

GUARANTEE STRUCTURE



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