



Nationally Appropriate Mitigation Action

Chile - Renewable Energies Price Stabilization Fund

Executive Summary

Sponsoring Country: Chile

Sponsoring Agencies: Chilean Ministry of Energy, Center for Clean Air Policy

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Introduction

Chile's power sector is on a trajectory to add 8,000 – 10,000 megawatts of new capacity by 2020, from the current 16,000. If all of this new demand was met through additional coal-powered generation, carbon dioxide emissions could increase by 32 to 40 million tons over current levels. In an effort to make Chile's electricity supply less dependent on fossil fuels and to encourage the development of renewable energy sources, Chile is developing a NAMA to support the development of Price Stabilization Funds (PSF).

Chile currently has a Renewable Portfolio Standard Law, which requires that by 2024, 10% of the energy sold comes from renewable sources. In addition, increasing the percent requirement is currently under consideration. The government has also developed several programs through its development agency (CORFO) to promote renewables, including soft loans, financing for pre-investment studies, and subsidies for the installation of a concentrated solar power plant in the north as a demonstrative project. None of these programs, however, fully address the financing barriers for renewable energy projects. This NAMA is intended to address the financing barriers in order to spur solar and wind power generation in Chile, and achieve significant GHG benefits, strong local health impacts, and significant leveraging of private investment at low cost to donors.

PSF Model

The objective of the PSF is to catalyze commercial bank financing for renewable energy projects, exclusive of hydropower projects. Chile's energy sector is deregulated in such a manner that renewable power producers are not able to effectively obtain long-term power purchase agreements (PPAs) from customers. The deregulated Chilean power market is subject to wide fluctuations in its spot market price, ranging from as low as \$30/MWH to nearly 10 times that price. Intermittent renewable projects

that cannot obtain PPAs thus face particular risks given this wide variation in price, making banks reluctant to invest.

A PSF would address this barrier to investments in renewable energy by executing long-term (10-15 year), fixed priced payment contracts with renewable project developers to overcome the price fluctuations. It would provide certainty to investors by guaranteeing a price for renewable energy prices and assuming the spot market price risk.

NAMA Description

The PSF would execute contracts with developers, committing the PSF to pay a set price to a developer for delivery of electricity into the spot market. The developer would then pledge the PSF contract as collateral for bank financing and would assign all payments from the spot market to the PSF.

Based on modeling studies under development, a ceiling will be established for PSF payments to developers to ensure that the PSF remains financially viable and solvent throughout the life of the PSF program. The number of projects and the quantity of MWs supported by the PSF will be determined based on the funds available and the market projections.

Private investors have expressed interest in developing PSFs, and at least one initiative is ready to fund a PSF. The NAMA funds will be used in conjunction with private funds to expand the scope and impact of the PSF model, increasing the number of renewable projects that can get financing under this mechanism.

GHGs Reductions

It is estimated that, on average, 555 tons CO₂e can be avoided each year for each GWh generated with renewables. This means that, for example, for every 100 MWs of wind installed capacity supported by a PSF, it can reduce 200,000 tCO₂e each year, or 4 million tCO₂e over a 20 years period.

Private Funds Leverage

For every 100 MW a PSF can support, at least a \$10 millions fund for its operation will be required, and the projects supported would require an investment of at least \$200 million, adding up to \$210 millions of investment for a every 100 MWs supported by a PSF.

Support Requested

The Chilean Government is requesting \$10 - \$20 million in order to support the development of PSFs, expanding the delivery of PSF benefits to a larger pool of projects.