

# Reallocation of resources within the CTF Investment Plan for Chile

Submitted to the CTF Trust-Fund Committee  
by the Government of Chile, the Inter-American Development Bank (IDB), and the  
International Finance Corporation (IFC)

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## INTRODUCTION

1. This memo provides an update on the Chile Large-Scale Photo-Voltaic Program (LSPVP) and the Chile Geothermal Risk Mitigation Program (MiRiG) under the CTF Investment Plan (IP) for Chile, and describes the reallocation of the unused portion (USD 24,984,865.42) from the former to the latter. The proposed reallocation represents less than USD 30 million or 15% of the total IP resources and retains the reallocated amount under the private sector component of the IP. Therefore, following CTF guidelines, this memo is provided as an update for the CTF Trust Fund Committee's information rather than as an IP revision.
2. A separate document is being submitted in parallel by the IDB for approval, with further information about MiRiG and its investment instruments.

## UPDATE ON LSPVP

3. The market for large-scale solar PV plants in Chile has matured considerably during the last two years. Chile's installed capacity at the end of 2014 was over 500 MW, which represents more than 70% of Latin America's operating PV capacity. Chile also has the largest pipeline of potential PV projects in Latin America, with several gigawatts of projects already awarded environmental approval. Although the majority of Chile's installed solar PV capacity was financed by multilateral and bilateral lenders, a growing number of international and local commercial banks have financed or are considering providing financing for these projects. Commercial banks have shown a clear preference for projects with Power Purchase Agreements (PPAs), but in a few cases they are demonstrating an appetite for merchant risk, providing financing for projects that will sell power directly to the spot markets of Chile's Northern Interconnected System (SING) or Central Interconnected System (SIC).
4. The market for renewable energy technologies in Chile was also recently positively affected by an open tender for PPAs, which was designed by Chile's National Energy Commission (CNE) to better respond to the characteristics of these technologies. In December 2014, new energy projects with a combined capacity of 2 GW won PPAs in the tender with private distribution companies in the SIC. Over 1GW corresponds to wind and solar projects, which, as a result, will have much greater access to financing and are likely to be constructed within the next 1-2 years.
5. IDB has already utilized its full allocation of CTF funds under the LSPVP for two large-scale, merchant PV projects: *Crucero*, approved in June 2014 with USD 16 million from LSPVP, and *Arica 1*, approved in December 2014 with USD 8.5 million from LSPVP. Including two additional, large-scale PV projects financed in 2013 and 2014, IDB's solar PV portfolio in Chile already consists of four projects with a total capacity of 200 MW, three of which are merchant projects selling 100% of their energy to the spot market. Given the IDB's exposure to spot market risk, as well as the increasing participation of local banks in the financing of PV projects both with and without PPAs, IDB's value added to the financing of more large-scale PV projects in Chile would likely be more limited at this point and therefore the Bank is unlikely to take on any new projects in the short to medium term.
6. The situation is similar for IFC, which has already financed four large-scale PV projects in Chile without the use of CTF resources. These projects have a combined capacity of 321 MW, and three of them have merchant risk. Given its exposure in the sector and for the same reasons described above, IFC is not planning to finance any additional large-scale solar PV projects in

Chile in the near future, and therefore will not require its allocation of USD 25 million under the Chile LSPVP. Out of the USD 25 million that were allocated to IFC under the LSPVP, an amount of USD 15,134.58 has been spent as part of the MDB MPIS budget. The remaining amount is USD 24,984,865.42.

## UPDATE ON MiRiG

7. Since the approval of the MiRiG Program, the IDB has advanced in the evaluation of projects for CTF financing. Eligibility conditions were defined, and a request for expressions of interest was sent to geothermal developers. Four projects meeting the eligibility criteria were selected for further engagement. In parallel, two world-class expert companies were selected competitively and contracted to provide geothermal advisory services throughout the evaluation, selection, preparation and supervision stages.

8. Subsequently, the IDB conducted a formal request for information from the four pre-selected projects, requiring data on each project’s technical, financial, legal and environmental characteristics. The total funding requested by all four projects is USD 143 M; thus exceeding current CTF resource availability almost threefold.

9. Once IDB and its consultants complete the evaluation of the information provided, the CTF resources will be allocated across projects, and the process will advance to in-depth due diligence and negotiation to structure final investments.

## UPDATE ON THE GOVERNMENT’S STRATEGY FOR GEOTHERMAL DEVELOPMENT

10. As mentioned above, Chile recently approved a law that modifies the mandatory electricity purchase auctions. These changes will open up a new market for large-scale renewable energy projects, allowing them to achieve long-term PPAs with distribution companies. One key modification that favors geothermal energy development is that the PPAs awarded through the open tenders will be granted five years before the required energy delivery date. This is intended to allow sufficient time for new projects to be developed. In addition, the revised contracts provide for the possibility of terminating the PPA if the project is determined to be unviable.

## CONCLUSION

11. Based on the demands for financing in Chile’s geothermal sector and concrete, highly additional investment opportunities identified in IDB’s MiRiG Program, as described above, the remaining USD 24,984,865.42 of LSPVP funds will be reallocated to the MiRiG Program.

## LIST OF ABBREVIATIONS

CNE	<i>Comisión Nacional de Energía</i> (National Energy Commission)	MW	megawatt
CTF	Clean Technology Fund	PPA	power purchase agreement
GW	gigawatt	PV	photo-voltaic
IDB	Inter-American Development Bank	RFI	request for information
IFC	International Finance Corporation	SIC	<i>Sistema Interconectado Central</i> (Central Interconnected System)
IP	Investment Plan	SING	<i>Sistema Interconectado del Norte Grande</i> (Northern Interconnected System)
LSPVP	Large-Scale Photo-Voltaic Program	USD	United States Dollars
MiRiG	<i>Programa de Mitigación de Riesgos de Geotermia</i> (Geothermal Risk Mitigation Program)		