

## PROJECT IMPLEMENTATION REPORT (PIR) FY 2021

**GEF - IDB  
PIR # 7**

**IMPORTANT: The reporting period is GEF Fiscal Year (July 1<sup>st</sup>, 2020, to June 30<sup>th</sup>, 2021)**

### PROJECT GENERAL INFORMATION

<b>Project Name:</b>	Promotion and Development of Local Solar Technologies in Chile				
<b>Project's GEF ID:</b>	4136	<b>Project's IDB ID:</b>	CH-X1007	<b>Overall Stage:</b>	ACTIVE Closed/Pending AFRs/Pending TCMFR
<b>Country/ies:</b>	Chile				
<b>GEF Focal Area:</b>	Climate Change				
<b>Executing Agency:</b>	MINISTERIO DE ENERGIA				
<b>Project Finance:</b>	Total disbursements of GEF Grant resources as of end of June 30th, 2021 (cumulative)				US\$2,244,891.96
<b>Project Dates:</b>	Date of First Disbursement				3/26/2014
	Agency Approval Date				11/1/2012
	Effectiveness (Start) Date				11/5/2013
	Original Last Disbursement Expiration Date <sup>1</sup> (OED)				5/5/2018
	Current CED				5/5/2020
	Estimated Operational Close Date <sup>2</sup> (EOC)				8/3/2020
	Actual Date of EOC, if applicable				02/12/2021
<b>Project Evaluation:</b>	Mid-term Date (Expected)				9/3/2019
	Terminal evaluation Date (Expected)				10/11/2021

<sup>1</sup> For the GEF, this is equivalent to the project's "Expected Completion Date".

<sup>2</sup> For the GEF, this is equivalent to the project's "Expected Financial Closure Date".

## DEVELOPMENT OBJECTIVE RATING (DO) & ASSESSMENT

Make an overall assessment and provide a rating<sup>3</sup> of “likelihood of achieving project objective” during the period (2020-2021). Describe any significant environmental or other changes attributable to project implementation.

**Project Objective:** The general objective of this project is to support the development of a solar technology industry, for both solar water heating and power generation in Chile. The specific objectives are: (i) to promote transfer of technology, institutional strengthening, and capacity building in solar technology; (ii) to foment the development of demonstration projects using solar technologies for both solar water heating and power generation; and (iii) to support the design of incentives, financial mechanisms, and a public awareness campaign to promote solar technology projects for both solar water heating and power generation.

### OVERALL ASSESSMENT (DO)

### RATING

The project has reached satisfactorily (S) the objective of supporting the Government of Chile (GoC) and the Ministry of Energy (MINENERGIA) in the development of the Chilean solar industry, which can be observed in the advance of the Solar Photovoltaic (PV) panels and Solar Water heaters (SWH).

In the first case, a large-scale PV market is consolidated. To June 2020, there is an installed capacity of 2,845 MW operating, which represents a 48% of the total renewable energy at electrical matrix in Chile. Others 3,268 MW are under construction.

In the other hand, the progress over Net-billing Law has been possible through the PV technology implemented through the project. The number of installations now reach 6,631 MW with a 56.76 MW installed capacity, which will permit reach the goal planned by this government over quadruple a total installed capacity of Net-billing projects in a couple of months more.

The best parameter of the development of PV system market at self-supply level it can see on the demand on the public contest for this kind of solution. The contest carried out today called “Ponle Energía a tu PyME” (Put energy to your Small and Medium Enterprise (SME)) (by Ministry of Energy and the Energy Sustainability Agency) has reached an 86% of the demand for PV project

In addition, the regulatory framework for Net-billing is strong; it has spread between installers and public around all regions of the country in more than one opportunity, one of them at the end of 2019 and the beginning of 2020. It is important to highlight that the first study for treatment of photovoltaic modules after useful life was developed thanks to this project.

In the case of SWH, the support to the spread the tax exemption between builders and installers was fundamental and it has allowed reaching 140,732 installations of SWH. To complement the information the SHW price index is on developing to support the decision of the consumers,

In relation with the Concentrated Solar Power (CSP) plants, Chile will be the first country in South America with a CSP plant at the end of 2020.

S

<sup>3</sup> See Annex 1: Definition of Ratings.

## PROJECT STATUS UPDATE

The project entered its last stage, closing financially on August 3rd, 2020, and it was fully justified by February 12, 2021.

Overall, the project has reached satisfactorily (S) the objective of supporting the GoC and MINENERGIA in the development of the Chilean solar industry, which can be observed in the advance of the Solar PV and SWH.

The activities planned for this period have started their development, but the social outburst, which started on October 18th, 2019, and the COVID-19 pandemic, are delaying the progress of all activities.

Even though the project has reached its final disbursement date on May 5th between IDB and Minenergia, Minenergia had 90 additional days to justify the use of GEF funds until the first days of August when the project closed. There are additional activities that were planned under this project until December 2020 to February 2021.

## IMPLEMENTATION PROGRESS RATING (IP) & ASSESSMENT

Insert here an assessment and provide ratings<sup>4</sup> of overall Implementation Progress, including information on progress, challenges, and outcomes on project implementation activities from July 1<sup>st</sup>, 2020, until June 30th, 2021. **As applicable, please include information on issues and solutions related to COVID-19.**

OVERALL ASSESSMENT (IP)	RATING
<p>In relation with the Concentrated Solar Power (CSP) plants, Chile will be the first country in South America with a CSP plant at the end of 2020.</p> <p>The activities planned for this period have started their development, but the social outburst, which started on October 18th, 2019, and the COVID-19 pandemic, delayed the progress of all activities. For these reasons, the Ministry of Energy asked for an extension of the project until December 2020.</p> <p><b>This is the status of each of the project's activities that remain to be implemented:</b></p> <ol style="list-style-type: none"> <li>1. Distributed generation seminars were done from November 2019 to January 2020 in 8 regions</li> <li>2. Consultancy for design and strategy for penetration and development of the heating and cooling renewable technologies has finished</li> <li>3. The Application for energy information exploring with augmented reality has finished</li> <li>4. Professional technical training qualifications framework for the energy sector was developed and finished in October 2020.</li> <li>5. The study: "Alternatives for treatment of photovoltaic modules after useful life" was finished in September 2020.</li> <li>6. For the "Evaluation of the Public Solar Roof Program" study, the consultant asked for an extension until December 2020.</li> </ol>	MS

<sup>4</sup> See Annex 1: Definition of Ratings.

OVERALL ASSESSMENT (IP)	RATING
<p>7. The Solar Water heaters price index is on development, and was finished in August 2020</p> <p>8. The study "Projection of distributed generation for residential, commercial and industrial sector in Chile" began in September 2020.</p> <p>9. The Analysis of international trend of thermal solar heaters and profile and formative plan proposal for installers and operator technicians began in September 2020.</p> <p>10. The update of the Regulatory Tool Calculation Motor for Verification of Solar Fraction in Thermal Solar Systems has been suspended.</p> <p>In the case of activities 8 and 9 will be paid by the Ministry of Energy, as well as the last quotes of the activities number 4, 5, 6 and 7, because these are a priority for the Ministry of Energy.</p> <p>The implementation progress of the project for the fiscal year 2020-2021 was rated as Marginally Satisfactory (MS).</p>	

**RISK RATING & ASSESSMENT**

Make any adjustments necessary to the assessment ratings<sup>5</sup> of overall Project Risk<sup>6</sup> that you provided in the last PIR (2019-2020). Please include details and remedial measures for High and Substantial Risks, specifying who will be responsible for these measures.

OVERALL ASSESSMENT (RISK)	RATING
<p>Even though the project has reached its final disbursement date on May 5th between IDB and Minenergia, Minenergia had 90 additional days to justify the use of GEF funds until the first days of August 2020 when the project was fully disbursed. There are additional activities that were planned under this project. However, the additional execution period would be insufficient to consider using the reminder of the GEF funding. Those activities will be fully developed and funded with resources of the Ministry of Energy. Therefore, the sustainability of the project will be guaranteed beyond the project's closure and thus, the final risk rating granted is maintained as Low.</p>	L

**STAKEHOLDER ENGAGEMENT**

Please add information on any progress, challenges, and outcomes with regards to stakeholder engagement, based on the project's activities during its implementation through the 2020-2021 GEF Fiscal Year. **As applicable, please include information on issues and solutions related to COVID-19.**

Through the Distributed generation seminars, it was possible to disseminate solar energy related information mainly among PV installers working with Net-billing, including essential regulation for small power producers and PV self-generation. The Solar World Congress allowed to disseminate solar knowledge between scientist present in Chile and abroad, and also included a new generation of students and teachers.

<sup>5</sup> See Annex 1: Definition of Ratings.

<sup>6</sup> These should include risks identified at CEO Endorsement AND any new risks identified during implementation.

The consultancy for design and strategy for penetration and development of the heating and cooling renewable technologies in Chile, implemented by the project, was presented in workshops, where interviews and special workshops with stakeholders were carried out. In these events, information was collected in relation to necessities from the academic, public, and private sectors, as well among solar energy consumers.

Activities such as the ones presented in the stakeholder engagement should definitely be financed and promoted by the GEF.

## **GENDER**

Please add information on any progress, challenges, and outcomes with regards to any and all gender-responsive measures that were undertaken in the project's activities during the 2020-2021 GEF Fiscal Year. Also: Were indicators on gender equality and women's empowerment incorporated in the project's results framework? (Yes/No). If applicable, include the indicator with its baseline, target, and current value (2020-2021).

Most of the activities undertaken by the project are technical studies where the gender aspects did not have a specific indicator.

However, the list of assistance of distributed generation seminars, the project identified and control the gender participation. In addition, the App for energy information explorer with augmented reality includes a feature were women and men must be identified in its quiz, as a gender measure. At the same time, the App will incorporate the identification by gender amongst users.

## **KNOWLEDGE**

Please add information on knowledge activities and products developed in relation to the project (with GEF or non-GEF resources), with special emphasis on activities carried out during the 2020-2021 GEF Fiscal Year. **As applicable, please include information on issues and solutions related to COVID-19.**

During this period the following knowledge activities and products were developed through the project:

- a. Distributed generation seminars were performed in 8 regions of Chile.
- b. A consultancy for design and strategy for penetration and development of the heating and cooling renewable technologies, which was disseminated in seminars
- c. An App designed for solar energy information
- d. A professional technical training framework for the energy sector including solar energy (in process)
- e. The study "Alternatives for treatment of photovoltaic modules after useful life" (in process)
- f. The study "Evaluation of the Public Solar Roof Program". (in process)
- g. Solar Water heaters price index (in process)

Due to the COVID-19 pandemic, all dissemination activities were carried out online. Between May and August 2020, only activities funded with counterpart resources were carried out.

**Recommendation:**

Knowledge activities should be financed and promoted by the GEF.

**PROJECT MODIFICATIONS**

Please report any significant modifications made to the project design since July 1st, 2020. (The basis for comparison is the Project Results Framework Matrix included in the original Request for CEO Endorsement Document.) This should be based on the Project Results Framework Matrix included in the original Request for CEO Endorsement Document.

CATEGORY	YES/NO	APPROVED BY	DESCRIPTION OF CHANGE AND EXPLANATION
Objective	No		
Outcome	No		
Output/Activities	No		
Other	No		

**EXTENSIONS OR OTHER MODIFICATIONS**

Has the project been granted any extension or other modification covered by the OA-420 from July 1st, 2020, until June 30th, 2021? If yes, please explain below. **As applicable, please include information on issues and solutions related to COVID-19.**

Yes. Due to the social outburst, which started on October 18th, 2019, and the COVID-19 pandemic, the overall progress of all activities was delayed. For these reasons, the Ministry of Energy asked for an extension of the project until December 2020.

**LESSONS LEARNED / BEST PRACTICES**

If the project generated any lessons learned or best practices during the 2020-2021 GEF Fiscal Year, please provide a short description. **As applicable, please include information on issues and solutions related to COVID-19.**

- **COVID-19 pandemic.** It started in Chile at the end of February 2020 approximately and at this time most of the last project’s activities were programmed. Nevertheless, the administrative and legal processes began to slow down because the mobility of people was restricted. As a result, we are facing the challenges of working from home, meetings are online platforms and documents are signed by electronic signatures.
- **Financial sustainability.** In the absence of accessibility of the executing funds, some of the activities were funded with counterpart funds (government of Chile), in order to fulfill the initial objectives. Funding not able to be executed was returned to the IDB. However, as mentioned before, the specific objectives were met using counterpart funding.

## ANNEX 1. DEFINITION OF RATINGS

### Development Objective Ratings

1. **Highly Satisfactory (HS):** Project is expected to achieve or exceed **all** its major global environmental objectives, and yield substantial global environmental benefits, without major shortcomings. The project can be presented as “good practice”.
2. **Satisfactory (S):** Project is expected to achieve **most** of its major global environmental objectives, and yield satisfactory global environmental benefits, with only minor shortcomings.
3. **Marginally Satisfactory (MS):** Project is expected to achieve **most** of its major relevant objectives but with either significant shortcomings or modest overall relevance. Project is expected not to achieve **some** of its major global environmental objectives or yield some of the expected global environment benefits.
4. **Marginally Unsatisfactory (MU):** Project is expected to achieve **some** of its major global environmental objectives with major shortcomings or is expected to achieve only **some** of its major global environmental objectives.
5. **Unsatisfactory (U):** Project is expected **not** to achieve **most** of its major global environment objectives or to yield any satisfactory global environmental benefits.
6. **Highly Unsatisfactory (HU):** The project has failed to achieve, and is not expected to achieve, **any** of its major global environment objectives with no worthwhile benefits.

### Implementation Progress Ratings

1. **Highly Satisfactory (HS):** Implementation of **all** components is in substantial compliance with the original/formally revised implementation plan for the project. The project can be presented as “good practice”.
2. **Satisfactory (S):** Implementation of **most** components is in substantial compliance with the original/formally revised plan except for only a few that are subject to remedial action.
3. **Marginally Satisfactory (MS):** Implementation of **some** components is in substantial compliance with the original/formally revised plan with **some** components requiring remedial action.
4. **Marginally Unsatisfactory (MU):** Implementation of **some** components is not in substantial compliance with the original/formally revised plan with **most** components requiring remedial action.
5. **Unsatisfactory (U):** Implementation of **most** components is not in substantial compliance with the original/formally revised plan.
6. **Highly Unsatisfactory (HU):** Implementation of **none** of the components is in substantial compliance with the original/formally revised plan.

### Risk ratings

Risk ratings will assess the overall risk of factors internal or external to the project which may affect implementation or prospects for achieving project objectives. Risks of projects should be rated on the following scale:

1. **High Risk (H):** There is a probability of greater than 75% that assumptions may fail to hold or materialize, and/or the project may face high risks.
2. **Substantial Risk (S):** There is a probability of between 51% and 75% that assumptions may fail to hold and/or the project may face substantial risks.
3. **Modest Risk (M):** There is a probability of between 26% and 50% that assumptions may fail to hold or materialize, and/ or the project may face only modest risks.
4. **Low Risk (L):** There is a probability of up to 25% that assumptions may fail to hold or materialize, and/ or the project may face only modest risks.