Solar World Congress 2019
Santiago – Chile
Launch Event

ISES SWC Organizing Committee

December 5, 2018
Outline

**SWC 2019:** Why Chile and general background. Structure and partners. Chile’s partnership with ISES.

**Scope of the Conference:** general structure, activities, scope, partnerships.

**Objectives:** what we’re expecting to obtain.

**Status as of today:** a few final thoughts
Chile’s solar potential has been recognized since the late XIXth Century: In 1878 Charles Wilson, a Swedish engineer built the world’s first large scale solar desalination plant in Las Salinas, near Chacabuco. It produced around 20,000 liters of fresh water a day for the work done at Caracoles silver mine. Recent research as shown that in that period at least three large scale solar desalination plants were built to provide fresh water for the nitrate and silver mines in the region. These operated until early in the XXth Century.

In 1912 the Smithsonian Institution starts research on the solar constant, solar spectrum and solar variability first in Calama and then in the Montezuma Observatory which operated until the 1950’s. This was pioneering work done under the direction of Dr. Charles G. Abbot.

In the mid 1950’s the first work done by Chilean researchers started in Chile. In 1960, ACHESA (Asociacion Chilena de Energía Solar) was started by Prof. Germán Frick B. In the early minutes, the idea of hosting a World Solar Congress was put forward.
The 70’s y 80’s: Both Charles Wilson solar stills and the Montezuma Laboratory are known worldwide.. By the late 1960’s there’s already research being done in Chile (some of the leaders were Santa María University and Universidad del Norte). At that time, Dr. Féliz Trombe, director of the Odeillo Solar Lab visits Chile with the idea of installing a 500 kW Solar Furnace in the vicinity of Chiu Chiu.

There are numerous projects in this first period. From a very large solar hot water system for El Salvador Copper mine, solar houses, a solar heating system for Combarbalá Hospital and other significant projects.
In these images we see one of the large solar stills, laboratory experiments in Montezuma and the El Salvador collector field.
**General Background:** Chile has over 1850 MW of PV generation online, 200 MW of CSP in building or advanced planning stage more than 3000 MW to be built in the short term and an official target of at least 70% electrical energy production from renewables by 2050.

Since 2012 the SERC Chile (Solar Energy Research Center) initiative has been started. This links research groups from 8 national Universities and international research centers.

SERC Chile is the official counterpart for ISES for SWC 2019. And will become an Institutional member.
These are PV projects that have been operating since 2014. Installed PV capacity exceeds 1800 MW.
Pampa Elvira Solar has 39000 m² flat plate collectors and provide 80% of the energy for a large copper electro-winning plant.
El Tesoro CSP plant also provides heat for copper electro-winning. It has 10,000 m² concentrating collectors. The plant has recently come under the responsibility of Energía Llaima, the same company that built and operates Pampa Elvira Solar.

At least 15 similar plants could be installed in Chile and Peru.
Cerro Dominador, a 110 MW CSP with 16 hr storage + 100 MW of PV is again under construction. Final construction should be at the end of 2019.
Basic reasons for conducting SWC 2019 in Chile:

Chile has strong policies in the promotion of renewable energy in both large scale and small scale levels. SERC Chile (our core partner) and all its partners are a very active actor in establishing these policies.

The Latin American region is looking closely at Chile and its policies to establish their own priorities.

Also we have unparalleled conditions to test and deploy new technologies. And a very active industrial sector that is looking closely for new developments.
**Venue:**

**Chosen Venue:** We wanted a venue that had easy Access, open spaces (for an outdoor exhibition) and sufficient space for at least 500 attendees.

After seeing several options we have chosen Centro Parque in Parque Araucano. It’s a new Conference Center situated in a large park (the Access is easy, good hotels nearby). It can support a hybrid Congress with both outdoor exhibition área plus indoor conference facilities at a convenient Price.

The outdoor exhibition is essential to promote outreach to interested parties and the community in general.
Venue:
Venue:

Excellent open spaces,
Easy access
Scope of Conference:

We feel that the scope of SWC 2019 should be multifaceted. In particular:

- A very strong Academic conference: including all the classic ISES topics, plus special emphasis on energy and buildings, solar heating and cooling, solar energy for industry, solar desalination and topics specific to the region.

- Very strong Keynote speakers, to attract both the Conference participants as well as some general public (perhaps special entrance ticket for keynotes?).

- Parallel sessions to discuss policies at the governmental, national and regional levels. These sessions to include strong political presence, also ideally from the different government and regional agencies both in Chile and in the region.

- Very strong industry presence. Both in panels to discuss specific projects and also at a ground level exhibition dedicated to the general public that should include cutting edge technology.
Principal local partners:

As of today we have the following main partners:

• SERC-Chile: the consortium of 8 Universities + research centers. Our main partner.


• Chilean Energy Ministry: they will be our official Sponsors.

• Industry partners: both trade Associations such as ACERA, ACESOL and specific Industries as well as interested users in the mining (metallic and non-metallic sectors).
Thanks!