

Solar Energy Program Mexico (DKTI Solar)

► **Current Situation:** Momentum for large-scale solar energy use in Mexico

Over 90 per cent of Mexico's energy supply is currently based on fossil fuels. The energy reform and the recently enacted Energy Transition Law have established a crucial foundation to increase the share of renewable energies in the energy system. The country has also set ambitious targets for expanding the use of clean energy within the framework of international climate negotiations and its commitments to achieve Nationally Determined Contributions.

Mexico's huge solar energy potential remains largely untapped due to several reasons: In the absence of a specific promotion strategy, technological and commercial risks associated with projects are often overestimated, restraining project developers to invest in solar technologies. National financial institutions in Mexico have little experience in evaluating and financing large scale solar energy projects. Cooperation between the private sector, science and research, and public state institutions is not sufficiently developed to stimulate investments in innovative technologies. Besides, there is a need of platforms for the different players to benefit from a coordinated approach that could encourage the market for solar technologies.

► **Our approach:** Improving the conditions for the large-scale utilization of solar energy

The program is intended to improve the technological, financial and organizational conditions for large-scale solar energy applications in Mexico. Solar technologies that supply power to the grid, as well as solar thermal applications such as solar process heating for industry and solar cooling are being applied more broadly. On behalf of the German Federal Ministry for Economic Cooperation and Development (BMZ), The *Deutsche Gesellschaft für Internationale Zusammenarbeit* (German Cooperation for Sustainable Development, GIZ) is supporting Mexico on the implementation of the program. The project is funded by the German Climate Technology Initiative (*Deutsche Klimatechnologieinitiative*, DKTI) and focuses on the following priority areas:



► **Advising policies and adapting regulations**

The program supports key players in the private, public, academic and industry sectors, such as the Ministry of Energy (SENER), the Advisory Council for the Energy Transition, energy sector institutions, and solar energy networks in designing policies and implementation strategies in order to increase the share of solar energy. The energy reform and the recent auctions for clean energy have become the driving forces for the dynamic growth of photovoltaics in Mexico. In turn, the expected

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Mexican counterparts:

Ministry of Foreign Affairs, SRE www.gob.mx/sre

Ministry of Energy, SENER www.gob.mx/sener

National Commission for Efficient Energy Use,

CONUEE www.gob.mx/conuee

Development Bank and Export Credit Agency

www.bancomext.com

Mexican Centre for Innovation in Solar Energy

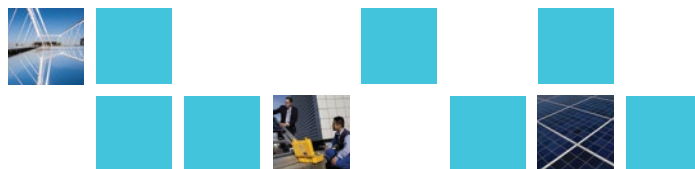
(CeMIE-Sol) <http://cemiesol.mx/>

Commissioning agency:

German Federal Ministry for Economic Cooperation and Development, BMZ www.bmz.de

Duration:

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increase of solar power creates new challenges for the integration of variable renewable energy in the energy system and for the energy infrastructure. Therefore, one of the main targets is to adapt regulation and to increase the flexibility of the energy system. Together with the private sector, the program is analyzing solar energy storage and introducing short-term power forecasts that allow a better planning of the electric system operation. In this regard, cooperation with the Energy Regulatory Commission (CRE) and the National Centre for Energy Control (CENACE) is becoming increasingly important.



► Promoting innovation and technology transfer

In order to achieve a climate-friendly transformation of the energy system, the range of industrial applications for solar systems must be expanded, both in terms of quality and quantity. Therefore, the program is enhancing cooperation between potential users, industry associations, and research institutions. This way we can bring together supply and demand and strengthen innovations. In cooperation with ProMexico and other players, the program has developed a road map to establish Mexico as a solar technology production place and increase the value chain on a local level. One of the key players is the Mexican Center for Innovation in Solar Energy (CeMIE-Sol), a network of academic and private institutions. Participation in workshops, conferences, study tours and activities aiming at fostering cooperation and networking help to build the capacities of our partners.

► Developing the market for solar energy

The program promotes cooperation platforms for all key players, allowing the establishment of a market integrated strategy. The initiative to promote thermo-solar energy in industries is a multi-actor platform, where producers, industrial users, solar energy associations and representatives

of the public and financing sector come together in working groups to make political recommendations, create publicity initiatives and keep developing the solar energy market.

On the other hand, photovoltaics and thermo-solar energy markets are stimulated, as comprehensive information on the following subjects is provided and published:

- new business models and financing
- technical and commercial applications
- economic viability
- reference projects.

One of the success factors on this field is the implementation of Public Private Partnerships, www.develoPPP.de

► Improving the capabilities of financial institutions

The program is enhancing the institutional capacities of Bancomext, which has a credit line funded by the German KfW Development Bank for financing large-scale solar projects. The project is raising awareness among Bancomext staff regarding the evaluation, risk assessment, and financing of solar projects, taking into consideration new business models in the new Mexican energy market. It provides advisory services to improve methods for evaluating the commercial and financial viability of solar energy projects and due diligence. The intention is to broaden this cooperation to include financial intermediaries and to support the development of new financial products in the future.

This way, the solar energy program DKTI Solar strives to overcome the barriers for a growing consolidation of climate-resilient energy technologies, contributing to the long-term sustainable development of the energy system.

Webpage GIZ Mexico

www.giz.de/en/worldwide/40646.html

Youtube Channel GIZ Mexico

www.youtube.com/users/gizmexico

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