

MISSION STATEMENT
RENEWABLE ENERGY TRADE MISSION
MEXICO
Mexico City and Monterrey
May 16- 19, 2016

MISSION DESCRIPTION AND SCOPE

The United States Department of Commerce's International Trade Administration (ITA) is organizing an Executive-led Renewable Energy Trade Mission to Mexico from May 16 to 19, 2016. The Renewable Energy Trade Mission offers a timely and cost-effective means for U.S. firms to engage with key stakeholders and to enter the promising Mexican market for renewable energy equipment, technology, and services.

A senior ITA official will lead a delegation of 15 to 20 companies for a series of meetings with government officials, power sector decision makers, potential buyers and other commercial partners in Mexico City. Delegates will receive discounted access to Mexico's premier trade show and congress for the clean energy industries, MIREC WEEK, including exclusive networking opportunities facilitated by the International Trade Administration. Participating companies will also have the option for a *second-city* mission extension for solar and wind power sub-sector briefings in Monterrey; pre-screened business-to-business meetings with local agents, distributors, or potential buyers facilitated by the Commercial Service; and local networking opportunities.

The mission will target near- and medium-term opportunities for U.S. equipment suppliers, technology providers and integrators, and a wide range of service providers operating in the solar, wind, renewable fuels, geothermal, and hydro power sub-sectors. In addition to exclusive meetings with Mexican energy sector officials, delegates will benefit from exposure to the hundreds of businesses and high-level decision makers participating in MIREC WEEK. The U.S. Commercial Service in Mexico will organize a complete package of country briefings, business and government meetings, sub-sector seminars, and networking opportunities led by U.S. government officials during MIREC WEEK. Delegates participating in the Monterrey extension will also receive business-to-business services designed to capitalize on unique opportunities in the local market and connect mission delegates with potential buyers.

COMMERCIAL SETTING

Mexico is the third largest trading partner of the United States, and represents the second largest export market of U.S. products and services. Since its enactment in 1994, the North American Free Trade Agreement (NAFTA) bolstered the strong manufacturing industries on both sides of the border, facilitating an active exchange in parts and components along supply chains for various industries, including energy. The close relationship between many U.S.-based suppliers and their Mexican counterparts, as well as the interlinked nature of supply chains in both countries, already facilitates excellent conditions for export success among U.S. energy equipment and service providers. These linkages, combined with favorable trade policy and U.S. leadership in clean energy technology development, make Mexico one of the best markets in the world for U.S. renewables companies to compete.

While energy sector exports to Mexico would be likely to grow even in a "business-as-usual" climate, U.S. renewable energy equipment and service suppliers to our southern neighbor are on the verge of significant growth thanks to unprecedented policy, regulatory, and market reforms in Mexico. Mexico's ambitious energy sector reforms are helping to advance the country's goals of a more diversified and competitive power market. The reforms are expected to liberalize and drive innovation in Mexico's energy market at a time when renewable energy development in Mexico is on the cusp of a major expansion. U.S. suppliers and service providers of renewable energy technologies stand to reap immense opportunity and benefit from this unprecedented market opportunity in North America.

Since the 1930s, the Federal Electricity Commission (CFE) has held a monopoly on Mexico's electricity generation, transmission and distribution services. Beginning in January 2016, the energy sector reforms will begin to take effect and completely change CFE's standing in the market. The Government of Mexico

expects and is striving to achieve increased competition, expanded and diversified power supplies, and lower electricity prices as a result.

In addition to the impact on CFE, three governmental agencies will now have new responsibilities in the electricity sector. SENER will serve the role of creating and overseeing the new energy policy; the National Energy Regulatory Commission (CRE) will serve as the national regulatory agency; and the National Energy Control Center (CENACE) will manage the power grid and wholesale electricity market. While transmission and distribution facilities will remain under state ownership, the private sector can compete for contracts in the construction, operation, and maintenance of such facilities.

Partly as a result of these laws, investment in Mexico's renewable energy sector has increased sharply, rising from just \$532 million in 2011 to \$2.4 billion in 2014. The Mexican government has set a goal to have 35 percent of its energy from renewable sources by 2024. Most international investment in Mexico's renewable energy market has historically supported wind and geothermal development, but solar, small hydropower, and renewable fuels are beginning to benefit as well, and most experts predict development of these sub-sectors, particularly solar, to soar in the coming years.

Mexico's major power sector stakeholders remained committed to the development of expanded and diversified energy supplies. CFE recently announced the launch of 24 new tenders, with a value of almost \$10 billion, which include two thermal power plants, two wind farms, one geothermal power plant, eight natural gas pipelines and multiple projects in transmission and distribution. SENER is implementing a tradeable Clean Energy Certificate market, which outlines obligations for many industrial electricity users to satisfy 5% of their power consumption with non-thermal sources by 2018. This program will help drive new opportunities for private players in the power generation market, who can now compete against CFE as electricity suppliers to the industrial sector, a market worth \$12.9 billion a year, representing 60.4% of annual consumption. Alpek, Minera Autlán, Braskem Idesa, Cemex, Grupo México and Mexichem are some of the major companies whose combined investments in new industrial projects amount to double the investment of CFE.

The renewable fuels market has also been the focus of reforms in Mexico. In an attempt to stimulate domestic production of fuel ethanol, the Government of Mexico launched an Ethanol Introduction Program in December 2011. It sets dates and minimum volumes for blending ethanol with gasoline, gradually increasing until 2016. In March 2015, PEMEX announced that it will begin selling E6 (5.8 percent) ethanol-blended gasoline in selected cities in the Mexican states of Tamaulipas, San Luis Potosi, and Veracruz. It awarded four 10-year contracts to Mexican companies that will supply PEMEX with as much as 123 million liters of ethanol per year. PEMEX will invest about \$58 million to build the necessary infrastructure.

The development of the renewables market in Mexico continues to prove favorable to U.S. firms, including SENER's recent announcement that contracts from the country's first ever open and competitive power auctions will be priced in U.S. dollars. As the peso has fallen 13 percent against the dollar over the last year and much of the equipment used in the electricity sector is financed using the dollar, this change in pricing will allow more stability and better financing for U.S. exporters.

Monterrey, Mexico offers a unique commercial setting for renewable energy development, particularly for U.S. suppliers. As Mexico's industrial hub, demand for reliable – and increasingly cleaner – energy in Monterrey is consistent and major consumers often look to private and distributed suppliers to meet their needs. U.S. businesses are well-established in Monterrey's local economy, including the energy sector, where reform-driven growth is anticipated. In addition, skilled and experienced local partners in Monterrey actively seek international suppliers to provide much needed technologies, particularly in solar and wind energy.

RENEWABLE ENERGY EXPORT OPPORTUNITIES

Mexico has the potential to generate 280 terawatt hours (TWh) of renewable power by the year 2030, representing a six-fold increase over today's level of 48 TWh. Achieving this potential will require a diversified mix of wind, solar, hydro, geothermal and biomass power technologies. Wind and solar PV

combined would account for nearly 60% of Mexico's renewable power generation, and 26% of total generation in 2030.¹ Reaching this level of deployment will require major investments in renewable energy technology, as well as the services and technical solutions necessary to integrate and manage these new energy resources across Mexico's broad and diverse geography.

ITA's 2015 Renewable Energy Top Markets report reflects Mexico's strong potential to follow-through on the necessary investments and drive opportunities for U.S. renewable energy exports. Mexico ranks as a top 10 market for U.S. export growth in five of the six renewable energy sub-sectors, and 11th for solar energy.² Mexico's supply chain across all renewable energy sub-sectors cannot be adequately met by local suppliers and U.S. exporters have proved highly competitive in the renewables market. There will be substantial and unique opportunities for U.S. manufacturers and service providers in each of the sub-sectors targeted by the Trade Mission.

Wind

Mexico ranks 4th worldwide in ITA's Top Markets analysis for U.S. export growth potential in the near-term. Wind power represents a major opportunity across both the north and the south of Mexico, with the potential to produce 92 TWh of electricity per year by 2030. In the context of the country's total installed wind power capacity of 1.7 GW in 2013, a total of 30 GW in 2030 would require an average annual installation rate of 1.7 GW.³

ITA anticipates that wind energy will lead the renewable energy market in Mexico, where in 2014 over \$1 billion – nearly half of Mexico's total clean energy investment – went to wind projects. In January 2015, the Mexican Wind Power Association, CFE and SENER announced \$14 billion of investments by 2018, which represents an increase of almost 7,000 MW for a total of 9,500 MW of installed wind energy. Mexico currently lacks a full wind supply chain, indicating that any future development will require imports.

U.S. turbines supply many wind projects in Mexico, but extensive opportunities exist for other component suppliers and a wide range of service providers in this well-established industry in Mexico. According to Bloomberg New Energy Finance, in addition to wind turbines, Mexico currently lacks the ability to manufacture bearings and gearboxes for the wind industry, indicating that any future wind energy development will require some imports. Site planning, engineering and consulting, interconnection and other service segments should provide unique export opportunities for U.S. firms as well.

Solar

Mexico ranks 11th worldwide in ITA's Top Markets analysis for U.S. export growth potential in the near-term. Mexico's solar industry remains in its infancy. Solar PV could contribute 30 GW of power capacity, generating 66 TWh of electricity per year in 2030. This would require an average annual installation rate of 1.5 GW. A quarter of the total installed capacity in 2030 would be in the form of distributed PV and mini-grid applications for street lighting, agricultural water pumping and mobile phone towers (7 GW). An additional 1.5 GW would come from concentrated solar power (CSP).⁴

ITA expects Mexico's solar industry to emerge over the next six years, installing 613 MW of new capacity, primarily through distributed PV. The market is already valued at \$2.3 billion, and investment should increase once the new energy reforms are implemented. In fact, falling solar prices and high capacity factors should make the industry far more competitive going forward and even the low-cost energy supply of choice for consumers located in remote areas. U.S. solar firms are consistently demonstrating new, more cost-effective solar technologies, as well as new financing arrangements that are proving successful domestically.

¹ Data on renewable energy potential refers to *Remap 2030: A Renewable Energy Roadmap*, developed and published by the International Renewable Energy Agency and available at: https://www.irena.org/remap/IRENA_REmap_summary_findings_2014.pdf

² The complete reports on *Renewable Energy*, *Renewable Fuels*, and other *Top Markets* industries are available at: <http://trade.gov/topmarkets/>

³ Data on renewable energy potential refers to *Remap 2030: A Renewable Energy Roadmap*, developed and published by the International Renewable Energy Agency and available at: http://www.irena.org/DocumentDownloads/Publications/IRENA_REmap_Mexico_report_2015.pdf

⁴ *Remap 2030: A Renewable Energy Roadmap*, p 13.

Demand for such innovations, along with the full suite of system design, installation, integration, and operational services, is consistently growing in Mexico.

Geothermal

Mexico ranks 5th worldwide in ITA's Top Markets analysis for U.S. export growth potential in the near-term. Mexico already has the world's fifth largest geothermal power installed capacity after the U.S., the Philippines, Indonesia and New Zealand, and could utilize its high temperature reservoir potential to reach 4.5 GW in 2030.⁵ 2014 was a notable year for the geothermal industry in Mexico, as new regulations were signed by President Pena Nieto. A framework is now in place to facilitate the issuance of permits for site study, as well as concessions for exploration and development of geothermal resources. In addition, Mexico's Ministry of Energy (SENER) recently announced that it has partnered with Nacional Financiers and the Inter-American Development Bank to provide risk mitigation and financing for private geothermal energy projects.

ITA projects U.S. exporters will capture nearly two-thirds of all geothermal imports in Mexico. Several U.S. firms are active in the market already, and benefit from the fact that Mexico's geothermal supply chain is incomplete. Specific opportunities for U.S. exporters are likely to include operation and management services, engineering services, and drilling services.

Hydropower

Mexico ranks 7th worldwide in ITA's Top Markets analysis for near-term U.S. export growth potential in the hydropower sub-sector. Under current plans, Mexico would reach 17 GW of large hydropower capacity by 2030 and a further 6.5 GW could be installed. Small hydropower capacity is already forecast to reach 1.8 GW, equivalent to an annual addition of 90 megawatts (MW) in 2015-30, or about ten small hydropower plants per year.⁶

Development in the hydropower sector will likely be focused on the small hydro industry, where U.S. exporters may find opportunities providing environmental consulting, turbines, and engineering services to an industry that is relatively small but with strong niche opportunities. In the medium-term, ITA expects some larger hydropower projects to come online, although U.S. exporters may only marginally benefit from this development, capturing less than two percent of the import market.

Renewable Fuels

Mexico ranks 5th worldwide in ITA's Top Markets analysis for U.S. ethanol export growth potential in the near-term. Between the years 2012-14, when U.S. Census Data recorded fuel ethanol exports separately from non-beverage (industrial) ethanol exports, the volume of fuel ethanol shipped to Mexico remained between 80 and 100 million liters (mostly un-denatured). Looking forward, efforts to grow renewable fuel supplies in Mexico may finally pay dividends, including for U.S. exporters.

The energy reforms enacted in 2014 likely put pressure on PEMEX to finally implement its blending program, after many years of uncertainty and failed bids. Beginning in 2017, companies that operate new stations not affiliated with PEMEX will be able to import gasoline, and in 2018, gasoline prices will be liberalized. Industry observers are cautiously optimistic that the launch of a new PEMEX program, although ostensibly awarded to domestic suppliers, could create more opportunities for U.S. ethanol suppliers due to the lack of ethanol processing infrastructure in Mexico.

Unique Opportunities at MIREC WEEK

During MIREC WEEK, Mexico's premier trade show and congress for the clean energy industries, companies will have the opportunity to interact with more than 1,000 attendees and attend seminars that will discuss the next steps for Mexico's clean energy sector, including the prospects for solar, wind, geothermal and mini-hydro. MIREC WEEK 2016 will not only focus on the opportunities for renewable energy technologies in Mexico, but also on the critical regulatory and fiscal aspects of the market. The U.S.

⁵ Remap 2030: A Renewable Energy Roadmap, p 13.

⁶ Remap 2030: A Renewable Energy Roadmap.

Commercial Service in Mexico City has negotiated a discounted one-day registration to MIREC WEEK, which is included in your participation fee, and is working closely with the show's organizers to facilitate unique networking opportunities, business meetings, and other value-added for trade mission delegates.

Unique Opportunities in Monterrey

Opportunities for U.S. exporters of solar and wind technology will be particularly ripe in Monterrey's industrial energy sector. High-consumption facilities in Mexico's industrial hub require on-demand electricity supplies, including from renewable energy sources. Operators of factories, industrial parks, and commercial buildings are seeking turn-key photovoltaic and other distributed energy solutions that U.S. suppliers are well-positioned to provide.

MISSION GOALS

The mission will target near-term opportunities for export success for U.S. technology suppliers and service providers in the solar, wind, renewable fuels, geothermal, and hydro power sub-sectors. U.S. energy project developers and finance stakeholders are also expected to be part of the Mission, which will leverage meetings and other direct engagements with the full range of renewable energy industry stakeholders to develop and expand on business relationships between the U.S. and Mexico. The Mission will also include activities at MIREC WEEK, Mexico's premier trade show and congress for the clean energy industries, held in Mexico City, and an *optional second-city* extended mission for participants in the solar and wind power sub-sectors for business-to-business meetings in Monterrey.

The mission's goals include:

- Facilitating first-hand market exposure and access to government decision makers and key private-sector industry contacts, including potential trading partners;
- Promoting the U.S. clean energy economy by connecting representatives of U.S. renewable energy companies with potential trading partners;
- Helping companies gain valuable international business experience in the rapidly growing renewable energy market; and
- Helping U.S. companies strengthen their engagement in the worldwide marketplace, leading to increased exports and, in turn, job creation.

MISSION SCENARIO

Delegates will participate in meetings with government decision makers and key representatives from private sector firms at MIREC, including potential trading partners. Country briefings and other meetings with U.S. government officials and staff will provide extensive market intelligence and ensure participants are prepared for all aspects of the Trade Mission. The delegation will participate in the MIREC WEEK and there is an option for a follow-on stop in Monterrey featuring meetings with local stakeholders and potential business partners. The renewable energy industry in Monterrey offers unique opportunities for U.S. project developers, equipment suppliers, and service providers that can directly connect to the region's robust industrial and commercial consumer base.

Exclusive meetings and networking events organized by the International Trade Administration will be central to achieving the Mission objectives. Briefings, receptions, roundtable discussions, and other networking opportunities will help connect U.S. companies participating in the Mission with key players in Mexico, including government representatives and business executives of major U.S. companies already established there.

In addition, MIREC WEEK will serve to bring Mexico's major renewable energy industry players to Mexico City and offer unique networking opportunities for trade mission participants. MIREC WEEK began in 2011 and has since developed into the leading annual congress and exhibition in Mexico for senior executives and government officials involved in the renewable energy industry. The basic Mission Fee includes discounted

one-day full access registration to MIREC WEEK and multiple networking opportunities at and outside the event facilitated by U.S. government staff.

In Monterrey, the U.S. Commercial Service will provide pre-screened business-to-business meetings which are included in the additional fee for the mission extension.

The precise agenda will depend upon the availability of local government and private sector officials, as well as on the specific goals and makeup of the mission participants. The following Mission Timetable provides a summary of the major activities of the trade delegation.

MISSION TIMETABLE

Day	Date	Activity
Monday	May 16	<ul style="list-style-type: none"> Participants Arrive in Mexico City <u>by 4 pm</u>. Country Briefing: by U.S. Embassy staff on Mexico's renewable energy sector and business opportunities. Evening Reception: with USG officials, renewable energy stakeholders, and potential partners from Mexico's industry.
Tuesday	May 17	<ul style="list-style-type: none"> Meetings and Roundtables: with government agencies and renewable energy sector decision makers, including translation services. Evening Reception: with key stakeholders at MIREC WEEK.
Wednesday	May 18	<ul style="list-style-type: none"> MIREC WEEK: One-day participation in Mexico's premier trade show and congress for the clean energy industries. U.S. Government-led Networking Opportunities: delegation tour of the show and facilitated networking. Optional Second-City: Evening travel to Monterrey.
Thursday	May 19	<ul style="list-style-type: none"> Monterrey Sub-Sector Roundtables: with local leaders and business community in wind and solar industries. Monterrey Business Meetings: Commercial Service facilitated business-to-business meetings in Monterrey.

PARTICIPATION REQUIREMENTS

All parties interested in participating in the trade mission must complete and submit an application package for consideration by the Department of Commerce. All applicants will be evaluated, on a rolling basis, on their ability to meet certain conditions and best satisfy the selection criteria as outlined below (*see Conditions for Participation*). A minimum of 15 and maximum of 20 companies will be selected to participate in the Mexico City mission from the applicant pool. For specialized business to business meetings in Monterrey, a maximum of 10 companies will be selected to participate.

FEES AND EXPENSES:

After a company or organization has been selected to participate on the mission, a payment to the Department of Commerce in the form of a participation fee is required. The participation fee for the basic Trade Mission, including a discounted one-day all-access pass to MIREC WEEK, will be **\$1,900** for a small or medium-sized firm (SME)⁷, and **\$2,250** for large firms. The additional fee for participants in the extended Mission for pre-screened business to business meetings in Monterrey will be **\$1,400** for a SME and **\$1,700.00** for a large firm. The fee for each additional company representative participating in the Mission will be **\$1,600.00** for Mexico City and **\$500** for Monterrey.

EXCLUSIONS

The mission fee does not include any personal travel expenses such as lodging, most meals, local ground transportation (except for transportation to and from meetings), and air transportation. Participants will, however, be able to take advantage of U.S. Government rates for hotel rooms.

Business or entry visas may be required to participate on the mission. Applying for and obtaining such visas will be the responsibility of the mission participant. Government fees and processing expenses to obtain such visas are not included in the participation fee. However, the Department of Commerce will provide instructions to each participant on the procedures required to obtain necessary business visas.

CONDITIONS FOR PARTICIPATION

Targeted mission participants are U.S. companies or trade associations providing renewable energy equipment, technology and services with export interests in Mexico's market.

Certification of products and/or services being manufactured or produced in the United States is required, or if manufactured/produced outside of the United States, the product/service must be marketed under the name of a U.S. firm and have U.S. content representing at least 51 percent of the value of the finished good or service.

The following criteria will be evaluated in selecting participants:

- Suitability of a firm's or service provider's (or in the case of a trade association/organization, represented firm or service provider's) products or services to Mexico's market.
- Firm's or service provider's (or in the case of a trade association/organization, represented firm or service provider's) potential for business in the markets, including likelihood of exports resulting from the mission.
- Consistency of the firm's or service provider's (or in the case of a trade association/organization, represented firm or service provider's) goals and objectives with the stated scope of the mission.

Diversity of company size and location may also be considered during the review process.

Referrals from political organizations and any documents containing references to partisan political activities (including political contributions) will be removed from an applicant's submission and not considered during the selection process.

TIMELINE FOR RECRUITMENT AND APPLICATIONS

Mission recruitment will be conducted in an open and public manner, including publication in the *Federal Register*, posting on the Commerce Department trade mission calendar (<http://export.gov/trademissions>), the Renewable Energy and Energy Efficiency exporter portal (<http://www.export.gov/reee/>) and newsletter, and other web sites, press releases to general and trade media, direct mail, notices by industry trade associations and other multiplier groups, and publicity at industry meetings, symposia, conferences, and trade shows.

Recruitment for the mission will begin immediately and the U.S. Department of Commerce will review applications and make selection decisions on a rolling basis until the maximum of **20 participants for Mexico City** and **10 participants for Monterrey** are selected. Applications received after **March 4, 2016**, will be considered only if space and scheduling constraints permit and participation fees must be paid by March 14, 2016.

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