

Overview of RE&EE Advisory Committee Recommendations

- Recommendation 1:** The Secretary of Commerce should direct ITA to work with DOE/NREL, the Department of State and other interagency partners to further develop an internal catalog of U.S.-manufactured renewable energy and energy efficiency products and services for use by U.S. facilities overseas. The Secretary should work with the State Department and military branches to ensure that access to the guide is provided for procurement officials and contractors and others working on procurement of RE&EE items.
(Fact Sheet: page 1)
- Recommendation 2:** The Department of Commerce should recommend that the World Customs Organization (WCO) establish specific Harmonized System (HS) tariff codes for renewable energy and energy efficiency equipment, components, and products.
(Fact Sheet: page 2-3)
- Recommendation 3:** The Secretary of Commerce should work with USTR to bolster and accelerate efforts to eliminate or reduce import duties or tariffs on renewable energy and energy efficiency products and services by seeking to expand voluntary regional initiatives like the APEC Environmental Goods and Services Agreement into global and/or mandatory trade pacts.
(Fact Sheet: page 4)
- Recommendation 4:** The Secretary of Commerce should encourage USTR to press ahead with negotiations on binding plurilateral or multilateral agreements to reduce localization barriers that inhibit trade in renewable energy and energy efficiency goods and services.
(Fact Sheet: page 5)
- Recommendation 5:** The Department of Commerce should work with USTR, the State Department, and industry to increase its monitoring and publicizing of local content requirements and other localization barriers in newly proposed renewable energy and energy efficiency programs (such as FITs, RFPs and Renewable Energy Portfolio requirements) in key export markets. When barriers are identified, appropriate action should be taken to effectively reduce or eliminate barriers before they impact U.S. renewable energy and energy efficiency exporters.
(Fact Sheet: page 6-7)
- Recommendation 6:** The Secretary of Commerce should direct ITA to more strategically focus trade missions with the input of ITA's Renewable Energy Top Prospects Study. If multi-sector missions are scheduled, they should include only complementary sectors.
(Fact Sheet: page 8)
- Recommendation 7:** The Secretary of Commerce should direct ITA to work with USTDA, USAID, and the State Department to develop country and regional renewable energy and energy efficiency Integrated Resource Plans, which would support local development and U.S. export efforts.
(Fact Sheet: page 9)
- Recommendation 8:** The Department of Commerce should facilitate briefings for the U.S. Executive Directors of the Multilateral Agencies and the staffs at these institutions with U.S. renewable energy and energy efficiency industry representatives to highlight current U.S. industry capabilities and competitiveness.
(Fact Sheet: page 10)

- Recommendation 9:** The Department of Commerce should work with industry and other technical experts to increase education and training for the U.S. and Foreign Commercial Service, the Economic Development Administration, the National Institute of Standards and Technology, and other relevant agencies about the U.S. renewable energy and energy efficiency industries and their competitiveness.
(Fact Sheet: page 11)
- Recommendation 10:** The Secretary of Commerce should direct ITA to work with the Department of Energy’s Clean Energy Manufacturing Initiative (CEMI) to establish a U.S. Clean Energy Manufacturing and Distributed Energy for the World (CEMDEW) Public Private Partnership to promote U.S. RE&EE export competitiveness.
(Fact Sheet: page 12)
- Recommendation 11:** The Department of Commerce should seek to develop and integrate a multi-year, interagency comprehensive competitiveness roadmap for the RE&EE industries, based on input from the DOE RE&EE industry technology memos and in collaboration with industry representatives. The process should bring together, expand on, utilize, and leverage existing and new programs across relevant agencies. This roadmap should outline strategies necessary to develop RE&EE-friendly domestic market conditions and support the global competitiveness of domestic industries.
(Fact Sheet: page 13)
- Recommendation 12:** Promotion efforts through the Renewable Energy and Energy Efficiency Export Initiative should be broadened to include goods and services intended to increase power infrastructure resiliency and address risks to public infrastructure.
(Fact Sheet: page 14)
- Recommendation 13:** The Secretary of Commerce should direct ITA to create a standard U.S. Country Commercial Guide template for sector analysis with common terminology, data points, and research references across markets. Where energy is identified as a leading sector, the template should include information on energy efficiency and renewable energy opportunities, best practices for U.S. exporters, and contact information for key government and regulatory officials. An assessment of U.S. manufacturing and service provider capability and competitiveness should be reflected in the listed “Leading Sectors for U.S. Export and Investment” section through consultation with ITA industry analysts, industry representatives, and other relevant agency initiatives such as the DOE’s Clean Energy Manufacturing Initiative.
(Fact Sheet: page 15)
- Recommendation 14:** An interagency effort led by the Department of Commerce, with support from the Departments of State and Energy, should develop planning standards and policy options to ensure that international transmission investments consider and support U.S. RE&EE exports. The Secretary should urge that the standards developed be utilized by U.S. government agencies and representatives promoting RE&EE exports or when considering transmission investments.
(Fact Sheet: page 16-17)

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Recommendation:

The Secretary of Commerce should direct ITA to work with DOE/NREL, the Department of State and other interagency partners to develop an internal catalog of U.S.-manufactured renewable energy and energy efficiency products and services for use by U.S. facilities overseas. The Secretary should work with the State Department and military branches to ensure access to the guide is provided for building facility managers and contracted design firms working on procurement of RE&EE items.

Sub-Committee: Trade Policy

Background Information:

The U.S. Government builds and renovates many facilities overseas each year as is evident by looking at opportunities listed on fedbizopps or military procurement sites. These facilities may be accessible to potential foreign buyers or policy makers – both of which are good targets for RE&EE product/service demonstrations. Even sites that are not accessible to foreign citizens could benefit from incorporating these products to improve energy cost savings. There is no GSA-mandated building efficiency requirement for these overseas buildings; however the Department of State is currently coordinating the greening of its Embassies overseas in part by pooling the purchasing power of Embassies for larger ventures. (Example: A geothermal farm in Sapporo will power 7 consulates and the US Embassy thereby forcing the Government of Japan to put in place regulations allowing the wheeling of power across the country, which opens opportunities for other ventures.) The Department has put together a Sustainable Toolkit for Embassy/Consulate building facility managers that provides information on suggested action items. The toolkit includes some information on companies already providing services to US Embassies but State would like to add other U.S. RE&EE goods/services options. Similarly NREL is developing a list of U.S. technology in this space for use in analyzing U.S. manufacturing competitiveness. Finally, ITA has worked with EPA to produce a similar Environmental Solutions Toolkit that could serve as a model. Industry trade associations can also contribute knowledge to this effort.

Expected Impact on Export Competitiveness:

The ability to showcase U.S. RE&EE technology in buildings in foreign markets provides an opportunity to demonstrate the performance of a technology to potential foreign buyers or policy makers instead of requiring an often burdensome visa application process and costly visit to the United States. Examples like the geothermal plant in Sapporo can help support regulatory reform that increases market opportunities.

Specific Agencies Responsible for Implementation:

U.S. Department of Commerce, US Department of Energy/NREL, State Department, DOD procurement

Metric to Track Success:

Develop a guide/online app within 1 year. Work with State/military agencies to develop a process for providing access/outreach for facility managers and construction contractors.

Renewable Energy and Energy Efficiency Advisory Committee Recommendation Fact Sheets

Recommendation:

The Department of Commerce should recommend that the World Customs Organization (WCO) establish specific Harmonized Tariff Codes (HTC) for renewable energy equipment and components.

Sub-Committee: Trade Policy

Background Information:

- Due to the emphasis and demand being placed on clean renewable energy products by governments worldwide, many countries to encourage the development of these renewable energy sources have enacted specific tariffs, incentives, licenses, and different taxing schemes for the different types of renewable energy equipment. Due to the high costs of some of these new renewable energy systems compared to old thermal energy systems, these various incentives are vital if the governments want the private sector to invest and develop these new renewable energy systems. Not having categories and subcategories to easily identify the equipment to the specific renewable energy type can cause administrative issues and expenditure of resources in trying to substantiate the validity and to obtain the vital economic benefits.
- There are no HTC that references renewable energy equipment or components.
- Under the U.S. HTC, there is a code referencing “wind turbine blades and hubs” (8412.90.90.81, “solar cells” (8541.40.6020), “assembled into modules or made up into panels” (8541.40.6020). However, turbines, generators, invertors, compact substations, hydrokinetic, etc. are not referenced. Many of these items are manufactured specifically for the respective renewable energy type.
- The U.S. uses a 10-digit Schedule B classification system that is based upon the World Customs Organization Harmonized System which results in the Harmonized Tariff Code. The HTC is the basis for most counties in determining the product classification, tariffs, and other regulations and incentives regarding the imported product. The first six digits of the Schedule B and HTC numbers are the same. Exporters need to know their product’s Schedule B and HTC numbers for the following reasons:
 1. To determine applicable import tariff rates and whether a product qualifies for a preferential tariff under a Free Trade Agreement;
 2. To determine if products qualify for other incentives or tax reductions in the various countries
 3. To file the Electronic Export Information in the Automated Export System (AES); and
 4. To complete shipping documents, such as certificates of origin.

It is evident that there is a lack of awareness and knowledge on how these companies can effectively conduct due diligence on the effects of the HTC classifications will have for their equipment or products. For example, we sold an energy saving paint product in a Latin American Country. The product’s HTC was classified in a category that specified that the product contained ceramic microspheres. We were informed that HTC had a very high tariff/duty, because the Government was protecting the pottery industry that contained ceramic materials. We reviewed other HTC classifications and found an appropriate HTC for our product. The difference in the tariff/duty was an 18% reduction. We would not have been able to conduct sales activity in that Country, without being able to change the HTC.

Currently, many of the renewable energy products can be classified under multiple HTC thus jeopardizing the loss of country specific incentives for specific renewable energy systems if the incorrect HTC is chosen for that country.

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Expected Impact on Export Competitiveness:

- Eliminate considerable effort and/or engaging in specialized consulting services in trying to arrive at the correct HTC for renewable energy equipment and products.
- Arriving at the incorrect HTC can potentially subject imported renewable energy equipment and products to higher tariffs, taxes, licenses, and loss of incentives.
- Loss of incentives or payment of higher tariffs or taxes can lower the ROI making projects unattractive to investors and lending institutions.
- The HTC for renewable energy products has the potential of benefiting American companies to the same degree, whether their company is small or large.

Specific Agencies Responsible for Implementation:

Department of Commerce, Department of State, and International Trade Commission.

Metric to Track Success:

The WCO passing new Harmonized Tariff Codes for renewable energy equipment and products.

Renewable Energy and Energy Efficiency Advisory Committee Recommendation Fact Sheets

Recommendation:

Bolster and accelerate efforts to eliminate or reduce tariffs on renewable energy and energy efficiency products and services by seeking to expand voluntary regional initiatives like the APEC Environmental Goods and Services Agreement into global and/or mandatory trade pacts.

Sub-Committee: Trade Policy

Background Information:

Tariffs in countries on renewable energy equipment and products vary by country. With the world trying to reduce carbon emissions, eliminating or reducing tariffs on renewable energy equipment and products will encourage the development of these new technologies, while increasing electrical generation and reducing carbon emissions.

For example, tariffs on renewable energy equipment and products range from the mid-teens to the mid-twenties in Brazil and India.

Expected Impact on Export Competitiveness:

Tariffs can increase the cost of projects to the point that it can become economically unviable. Profits and rate of return can be lowered so it is unattractive to investors and international lenders.

Tariffs can put U.S. companies at a disadvantage to competitive bidding so only countries' domestic companies will succeed in winning contracts.

For example: On a project containing \$18,000,000 USD of renewable energy equipment and products, a tariff of 15% would add \$2,700,000 USD of additional cost requiring more equity and financing. This is a substantial additional cost and can affect the overall economics of the project.

Specific Agencies Responsible for Implementation:

Department of Commerce and U. S. Trade Representative

Metric to Track Success:

Department of Commerce's success in elimination or reducing tariffs on renewable energy equipment and products in various countries

Renewable Energy and Energy Efficiency Advisory Committee Recommendation Fact Sheets

Recommendation:

The Secretary of Commerce should encourage USTR to press ahead with negotiations on binding plurilateral or multilateral agreements to reduce localization barriers that inhibit trade in renewable energy and energy efficiency.

Sub-Committee: Trade Policy

Background Information:

Examples of localization barriers include:

- Local content requirements (LCRs) such as requirements to purchase domestically-manufactured goods or domestically-supplied services as a condition to participation in markets, including Feed-In Tariffs (FITs) and renewable energy portfolio targets
- RFPs by governments or state-owned utilities (minimum qualifications or “bid points”)
- Subsidies or preferences that are only received if producers use local goods or service or IP to qualify
- Requirements to use local facilities or establish in-country manufacturing
- Measures to force the transfer of technology or IP
- Technical barriers to trade (TBTs), such as country-specific technical standards or testing requirements

Recent US Government successes include the 2011 agreement by APEC leaders to remove LCRs on environmental goods, and the subsequent negotiation in 2012 of a list of environmental goods.

Current treaty negotiations include:

- Agreement on Environmental Goods and Services, such as by expanding the APEC Agreement on Environmental Goods and Services to the Trans-Pacific Partnership and OECD
- Agreement on International Trade in Services

Expected Impact on Export Competitiveness:

Exports would be increased by opening markets and eliminating barriers to trade, since LCRs:

- Distort trade by creating global excess manufacturing capacity and sheltering inefficient production
- Drive limited foreign investment in host country but diminish competition
- Encourage other trading partners to raise similar obstacles
- Raise prices for consumers and thus reduce competitiveness of renewable energy
- Can leave host country with excess capacity after initial boom

Specific Agencies Responsible for Implementation:

Department of Commerce, Dept. of State, USTR

Metric to Track Success:

Negotiation and implementation of new or expanded international treaties eliminating or reducing LCRs

Renewable Energy and Energy Efficiency Advisory Committee Recommendation Fact Sheets

Recommendation:

The Department of Commerce should work with USTR, the State Department, and industry to increase its monitoring and publicizing of local content requirements and other localization barriers in newly proposed renewable energy and energy efficiency programs (such as FITs, RFPs and Renewable Energy Portfolio requirements) in key export markets. When barriers are identified, appropriate action should be taken to effectively change barriers before they impact U.S. renewable energy and energy efficiency exporters.

Sub-Committee: Trade Policy

Background Information:

Specific examples of renewable energy procurement programs that are ongoing or proposed, and that include localization barriers that impede trade in RE&EE, include:

- Saudi Arabia's proposed Competitive Procurement Process (CPP), where "bid points" are awarded on sliding scale for local content, ranging from 40% to 70%, depending on technology. Allocation of bid points for local content increases after initial round
- Turkey's Feed-in Tariff, where incremental price incentives reward local content
- Brazil, where local content is a prerequisite to subsidized financing by the Brazilian development bank (BNDES), including 60% local content for solar projects, and requirements for specific locally-produced components (blades, assembly of turbine hub and nacelle) for wind projects
- Indonesia, where a bonus tariff is added for bids with over 40% local content

The annual USTR report, and a Sept 2013 report by the ITC, highlights the impediment to trade caused by LCRs and other localization barriers. However, because renewable energy is often procured through specific short-term renewable energy programs such as RFPs or FITs with short-term deadlines, these reports often come after these localization barriers in renewable energy programs have been fully implemented and renewable energy targets have already been fully subscribed.

Earlier publication would discourage countries from including localization requirements prior to launching new renewable energy programs, and increased awareness of non-tariff barriers would encourage action by trade groups and governments to reduce barriers. Earlier intervention could discourage countries from including localization requirements prior to launching new renewable energy programs, and encourage removal or reduction of such barriers as programs are finalized or revised.

Steps to monitor such localization barriers could include:

- Expanding and promoting the Notify U.S. Service (maintained by NIST as the US Point of Inquiry for Technical Barriers to Trade) or develop a separate web-based system to facilitate reporting of LCRs and Technical Barriers to Trade faced by US exporters;
- Requesting US Embassies to report localization barriers, including in RE/EE, in their annual reports to the USTR and their country guides;
- Issuing special reports on barriers in specific countries, or highlighting these barriers in the USTR's annual report; and
- Continuing to expand and publicize governmental "best practices" to encourage a vibrant RE/EE industry locally without resort to localization barriers.

Expected Impact on Export Competitiveness:

Immediate increase in opportunities for US exports in RE&EE sectors (manufacturing and services). New renewable energy procurement programs without LCRs, or existing programs with reduced or eliminated LCRs, open new markets to US exports.

Specific Agencies Responsible for Implementation: Commerce Department, State Department, USTR,

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Trade Policy Staff Committee Task Force on Localization Barriers to Trade

Metric to Track Success:

Elimination or reduction of LCRs in specific countries' newly proposed or ongoing renewable energy procurement programs

Renewable Energy and Energy Efficiency Advisory Committee Recommendation Fact Sheets

Recommendation:

The Secretary of Commerce should direct ITA to more strategically focus trade missions with the input of ITA's *Renewable Energy Top Prospects Study*. If multi-sector trade missions are scheduled, they should include only complementary sectors.

Sub-Committee: Trade Policy

Background Information:

The U.S. Department of Commerce, International Trade Administration plans several trade missions each year. Companies use trade missions to meet prospective buyers/distributors and to learn about government policy and regulation. Mixing unrelated industry sectors together for a trade mission diminishes the value of the mission to participants as meetings may not be relevant to all participants or not as in depth as they would have been if focused on a particular sector or related sectors. Trade missions are selected a year or more in advance limiting ITA's flexibility in scheduling the trade mission to coincide with policy change timelines, bidding opportunities or related trade shows/conferences. Scheduling around such opportunities increases interest in trade mission participation. Missions should be targeted at markets with the greatest impact – not just US export potential size, but potential for the trade mission to make a difference in the US share of the market.

Expected Impact on Export Competitiveness:

Improving the focus and scheduling of DOC trade missions can better address U.S. exporters' interests and increase the value of the trade mission to exporters. Scheduling trade missions appropriately – particularly for policy-driven sectors like renewable energy and energy efficiency – can help position U.S. exporters to win future business in the market. Targeting limited trade promotion resources on markets where a DOC trade mission can improve US market share is a good use of these limited resources.

Specific Agencies Responsible for Implementation:

U.S. Department of Commerce (ITA – commercial service and industry analysts)

Metric to Track Success:

Review trade mission process within 6 months to ensure market and sector selections are driven by export opportunity analysis involving ITA industry analysts. Identify ways to reduce the time needed to plan a trade mission to allow responsiveness to changing policy and regulatory environments that are opening market opportunities. Survey U.S. Commercial Service clients on how they rate DOC trade missions in regards to providing access to the best target markets at the right time and in a focused manner.

Renewable Energy and Energy Efficiency Advisory Committee Recommendation Fact Sheets

Recommendation:

The Secretary of Commerce should direct ITA to work with USTDA, USAID, and the State Department to develop country and regional renewable energy and energy efficiency Integrated Resource Plans, which would support local development and U.S. export efforts.

Sub-Committee: Trade Promotion

Background Information:

ITA should examine what other U.S. agencies and departments are already working on, or are producing, in the manner of regional Integrated Resource Plans (IRPs). ITA might also build upon the World Watch Institute's (WWI) model for developing country and regional sustainable energy roadmaps to determine the forecasted demand for renewable energy and energy efficiency. ITA should prepare a list of qualified Clean Energy Planning Groups from which a country can pick analysts to direct its efforts. Also, Commerce, through USTDA, should provide funding to the country for development of its sustainable energy country roadmap together with regional IRPs, which would support U.S. policy and export efforts.

The WWI model involves examining a country's renewable resources potential for renewable energy production and analyzing existing energy infrastructure to identify the potential for, and hurdles to, increased efficiency and energy storage. This technical analysis also allows WWI to catalog the grid enhancement and extension that increased use of renewable energy could require. It also looks at the current socio-economic and policy environments to identify barriers to low-carbon development and rely on international best practices to suggest how they can be overcome. In addition, it analyzes funding options that might be available from private, public, and multilateral institutions to help bring renewable energy projects into being. Building upon WWI's approach, ITA directed efforts would not only address the electric grid, but also the building sector, infrastructure, and on-site energy not only for a country, but also for a contiguous set of countries or region, depending on similarities, hence regional IRPs.

A regional approach allows clearer goals and more tailored policies. Therefore, sustainable energy country roadmaps should work with "regional" IRPs. These are long-range plans for meeting the forecasted demand for energy within defined geographic areas through a combination of supply side resources and demand side resources. The goal is to identify the mix of resources that will minimize future energy systems costs while ensuring safe and reliable operations.

Expected Impact on Export Competitiveness:

Knowing market potential and a region or country's demand for renewable energy and energy efficiency will make it easier for U.S. exporters to compare markets, see regional trends, and prioritize commercial opportunities. Exporters will have a better understanding of the market prior to approaching U.S. Commercial Service staff for market access assistance.

Specific Agencies Responsible for Implementation:

U.S. Department of Commerce (ITA – commercial service and industry analysts; USTDA)

Metric to Track Success:

Given that there does not appear to be a clear strategy related to market development for RE&EE exports for Central America, this might serve as the first sustainable energy roadmap / regional IRP and as a case study for other global regional IRPs and road maps. Depending on the success of this first implemented ITA regional sustainable energy roadmap model for Central America, it should be applied to other countries and regions prioritized by U.S. policy and export objectives.

Renewable Energy and Energy Efficiency Advisory Committee Recommendation Fact Sheets

Recommendation:

The Secretary of Commerce should facilitate briefings for the US Executive Directors of the Multilateral Agencies and the staffs at these institutions by the organizations and industries represented by the Advisory Committee to highlight US industry capabilities and proven sub-tier markets within classes of projects and procurements. These Executive Directors should be asked to arrange for similar briefings for projects and procurement staff within each of these multilateral entities.

Sub-Committee: Trade Promotion

Background Information:

The United States appoints voting board members for the multilateral institutions including: The World Bank Group (including IFC, MIGA, and GEF), Inter-American Development Bank (including Multilateral Investment Fund (MIF)), World Health Organization, United Nations Environment Program (UNEP), United National, Development Program (UNDP), and other regional banks including Asian Development Bank, African Development Bank, and European Development Bank for Reconstruction. These institutions and their “Executive Directors” have immense influence on the types of lending and the direction of lending which is in the billions of dollars each year.

Most of these funds either go to giant multi-year infrastructure projects or large regional multiyear procurement efforts where high value energy efficiency and renewable energy have solid cost-effective applications within (as a subpart) of these projects.

The suggestion is to have the US Executive Directors and their staffs at these institutions receive briefings from this Advisory Committee under US DOC auspices on US industry capabilities and proven sub-tier markets within classes of projects and procurements. These Executive Directors we asked to arrange for similar briefings for projects and procurement staff within each of these multilateral entities.

In addition, US Executive Directors should push for a procurement and grant requirement so that each project have a short energy efficiency and renewable applications analysis before any final project funding or procurement or grants decision-making is done on the many applicable and economic solutions by EE/RE. This will allow greater uptake of these technologies and services within these larger projects for which the US government’s funds are contributed.

Expected Impact on Export Competitiveness:

The goal is to create institutional change as part of the multi-billion dollar yearly outflow of the multilateral institutions and drive more of the portfolio of clean energy solutions, many of which the US has a technological lead in.

Specific Agencies Responsible for Implementation:

U.S. Department of Commerce

Metric to Track Success:

The Secretary of Commerce has facilitated a briefing

Renewable Energy and Energy Efficiency Advisory Committee Recommendation Fact Sheets

Recommendation:

Work with industry and other technical experts to increase education and training for the U.S. and Foreign Commercial Service, the Economic Development Administration, and the National Institute of Standards and Technology about the U.S. renewable energy and energy efficiency industry and its competitiveness.

Sub-Committee: U.S. Competitiveness

Background Information:

U.S. and Foreign Commercial Service

The Commercial Service has more offices overseas than virtually any other U.S. Department, with specialized regional teams in both aviation and energy. It is vitally important to fully engage the worldwide aviation and energy business community to develop the REEE industry. Staff is uniquely dedicated to build opportunities for U.S. businesses.

Education would be provided to the global Commercial Service teams for aerospace and energy both domestically and in targeted foreign markets about the US REEE industry so they can help U.S. firms take maximum advantage of commercial opportunities. This would be conducted through a series of webinars with different REEE trade associations taking the lead to develop relevant company and project technologies to serve as case studies.

A directory of REEE businesses could be compiled utilizing REEE trade associations for points of contact for potential matchmaking opportunities. The Gold Key Service can also be utilized for a more formal matchmaking process; trade associations could distribute information to members and also develop trade missions with DOC in key foreign markets. Trade associations could distribute information about Commercial Service opportunities to members through newsletters and trade show and/or conference speaking opportunities for Commercial Service staff.

EDA and NIST

Build new relationships between DOC's Economic Development Administration (EDA) and NIST's MEP (Manufacturing Extension Partnership) with renewable energy and energy efficiency technology providers. Commerce could encourage trade associations to distribute information about EDA and NIST to members through newsletters and trade show and/or conference speaking opportunities for NIST and EDA staff.

EDA program objectives are highly complementary to US REEE companies. NIST MEP programs could also be valuable as the five areas of concentration--technology acceleration, supplier development, sustainability, workforce and continuous improvement—align with some of the business development activities that are necessary to develop and commercialize REEE technologies.

Expected Impact on Export Competitiveness:

Increase opportunity awareness and matchmaking opportunities between REEE companies and international buyers, resulting in new opportunities and sales for REEE products and services to new and existing customers.

Specific Agencies Responsible for Implementation:

US Commercial Service, aerospace and energy divisions, EDA, NIST MEP

Metric to Track Success: Tracking leads and services for US RE&EE vendors and resulting sales.

Renewable Energy and Energy Efficiency Advisory Committee Recommendation Fact Sheets

Recommendation:

The Secretary of Commerce should direct ITA to work with the Department of Energy's Clean Energy Manufacturing Initiative (CEMI) in developing its proposed "American Clean Energy Manufacturing Partnership & Public Private Partnerships" concept to establish a U.S. Clean Energy Manufacturing and Distributed Energy for the World (CEMDEW) Public Private Partnership.

Sub-Committee: U.S. Competitiveness

Background Information:

The CEMDEW Partnership will identify and resolve common manufacturing and distribution problems for U.S. and export applications of RE&EE products and services. One of the Partnership's functions will be to establish a technology and funding platform for clean energy systems development from prototype to commercially deployable products and services for exportation. Additionally, the Partnership will identify and address economic deployment issues for clean energy systems in the developing economies.

CEMI's proposed concept is to create: consortia of potential strategic partners; competitiveness analysis & strategy; international clean energy manufacturing policy analysis; and an Industrial Fellows Program (IFP). The IFP is the initial source for the Tiger Teams. ITA staff should participate in and on CEMI's "Tiger Teams" that will be formed to help create and guide the consortia of potential strategic partners resulting from CEMDEW.

CEMDEW might replicate "the SEMATECH model," which is an excellent example of a Government-Industry Partnership that has had a major impact on the U.S. economy. SEMATECH is a partnership of the U.S. government and fourteen U.S.-based semiconductor manufacturers, which began operating in 1988 with a goal of solving common semiconductor manufacturing problems. Today, its members represent about half of the worldwide chip market. Among other contributions, the Commerce Department worked with DOD in creating the 1989 *PROGRESS AND PROSPECTS REPORT OF THE ADVISORY COUNCIL ON FEDERAL PARTICIPATION IN SEMATECH*. Further, the Commerce Department identified the National Institute of Standards and Technology has having the authority and technical expertise to join or supplant DOD in funding and managing the SEMATECH project.

Expected Impact on Export Competitiveness:

This initiative will create a major U.S. Government –Industry Partnership in clean energy manufacturing and deployment in the U.S. and for export, which will:

- Identify and solve key technical and deployment issues for export;
- Commercialize technologies and provide deployment solutions through final funding to enable companies to survive the "valley of death;" and
- Integrate state of the art technologies into clean energy systems for worldwide export to the \$10T global infrastructure market.

Specific Agencies Responsible for Implementation:

Commerce, (ITA, NIST); Energy (EERE, Labs); Defense (Services, DARPA)

Metric to Track Success:

Partnership charter and membership; development roadmap including clean energy sector/technology manufacturing scale-up, milestone tracking methodologies and targeted results.

Renewable Energy and Energy Efficiency Advisory Committee Recommendation Fact Sheets

Recommendation:

Department of Commerce should seek to develop and integrate a multi-year, interagency comprehensive competitive roadmap for the RE&EE industries, based on input of the DOE RE&EE industry technology memos and in collaboration with industry and other federal agencies. This roadmap should outline strategies required to develop RE&EE-friendly domestic market conditions and support the global competitiveness of domestic industries. The process should bring together, expand on, utilize and leverage existing and new programs across all agencies.

Sub-Committee: U.S. Competitiveness

Background Information:

There are multiple federal agencies and various programs working to improve the competitiveness of the RE&EE industries all, with good intentions and support. But, there is currently no comprehensive assessment or roadmap for the overall competitiveness of the vital RE&EE industries, or a determination of the conditions and actions required for these segments to be competitive in the global market. The Department of Commerce should seek to undertake an integrated comprehensive approach.

- I. The DOE, through its CEMI program, performs competitive assessments (“technology memos”) of the industries in which it invests. Though the technology memos go in-depth into the factors influencing the competitive position of the industry in a global market, there appears to be little assessment of the potential export opportunities. These memos, if made more comprehensive with data from Commerce, ITC, Foreign Service, and other federal agencies, can be used as the foundation of a long term comprehensive roadmap for each of the industry segments. Department of Commerce should request that the DOE strategy memos be expanded to all segments of the RE&EE portfolio, not only those in which DOE invests. These memos should also be put on an annual review cycle. Public versions of the memos should be made available to industry advisory committees.
- II. The Department of Commerce should develop, in conjunction with the DOE, DOD, industry and other stakeholders, a comprehensive competitive roadmap for the RE&EE industry. The roadmap should define the conditions and strategies required to build strong and competitive RE&EE industries vital to job growth, innovation and national security.
- III. The execution of the objectives defined in the roadmap should be supported with the use of a Fellow program, similar to the DOE’s Fellow program, (or Tiger team approach) to drive interdepartmental and industry tactical action plans and execution. The E3 program should use the roadmap, to guide and focus its efforts within the industry segments to drive global competitiveness.

Expected Impact on Export Competitiveness:

A focused, comprehensive and unified approach to building competitive industries will accelerate innovation, job growth, competitiveness, market growth and strength of the industries.

Specific Agencies Responsible for Implementation:

Commerce, DOE, ITC, DOD

Metric to Track Success:

Average EBITDA of industry segments

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Recommendation:

Promotion efforts through the Renewable Energy and Energy Efficiency Export Initiative should be broadened to include goods and services intended to increase power infrastructure resiliency in the face of increasingly severe weather worldwide, intensive geological movements, climate change, and terrorism - all wreaking havoc on public infrastructure.

Sub-Committee: U.S. Competitiveness

Background Information:

The Renewable Energy and Energy Efficiency Export Initiative of the Commerce Department and other USG agencies is intended to facilitate exports of this important US industry. Export programs aimed at EE&RE are already targeting buyers of US made goods & services in the power, construction and efficiency sectors. These are the same markets as the grid resiliency industry sells into, and given the global needs for hardening generation and distribution assets in the face of intensity of weather patterns, climate change, acts of terrorism, and geological shifts (earthquakes, tsunamis, etc) worldwide, there should be significant synergies for grid resiliency products and services, which include EE& RE exports, of which the USA holds a global technological lead.

Expected Impact on Export Competitiveness:

By leveraging off existing marketing efforts in common distribution channels, resiliency exports should be increased to stabilize markets and build US global market share on on-site renewable distributed generation systems, high-value energy efficiency, and software.

Specific Agencies Responsible for Implementation:

Commerce, DHS, DOE

Metric to Track Success:

Level of participation of resiliency product/service suppliers composed of a subset of EE&RE system integrators, software developers, and marketers already involved in trade missions, preparation of catalogues/seminars/webinars etc.

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Recommendation: The Secretary of Commerce should direct ITA to create a standard U.S. Country Commercial Guide template for sector analysis with common sector name terminology, data points, and research references across markets. Where energy is identified as a leading sector, the template should include information on energy efficiency and renewable energy opportunities, best practices for US exporters, and contact information for key government and regulatory officials. An assessment of U.S. manufacturing and service provider capability and competitiveness should be reflected in the listed “Leading sectors for U.S. Export and Investment” section through consultation with ITA industry analysts, industry trade groups, and other relevant agency initiatives such as the DOE’s Clean Energy Manufacturing Initiative.

Sub-Committee: Trade Policy /Trade Promotion

Background Information:

Country Commercial Guides are prepared annually by U.S. embassies to provide analysis of a country’s commercial environment. Renewable energy and energy efficiency is a priority sector in the National Export Initiative. Therefore, where energy is identified as leading sector, RE&EE market opportunities, best practices for exporters, and key contact information should be included. Also, the analysis and content of top market sectors is not standardized across markets or reflective of U.S. manufacturing competitiveness. For example, the energy sector may be listed under “electric power systems”, “PowerGen T&D”, or “Renewable Energy.” Content should include common data and research references like national energy plans, government procurement websites, incentive program information, relevant regulations (e.g. interconnection), etc. Sectors that are listed in “Leading sectors for U.S. Export and Investment” for U.S. exports often do not match with U.S. manufacturing capabilities. For example, Combined Heat and Power (CHP) is an area where the U.S. has competitive manufacturing, yet it is rarely addressed in the commercial guides.

Expected Impact on Export Competitiveness:

Improving the presentation and content of these country commercial guides makes it easier for U.S. exporters to compare markets, see regional trends and identify best practices in regulations or incentives. Exporters will have a better understanding of the market prior to approaching U.S. Commercial Service staff for market access assistance.

Specific Agencies Responsible for Implementation:

U.S. Department of Commerce (ITA – Commercial Service and industry analysts)

Metric to Track Success:

Format template and content guide should be drafted with input from in-country staff, ITA industry analysts and U.S. industry trade groups (manufacturers and service providers) prior to the next annual update. Consultation with ITA industry analysts on determining the relative level of U.S. manufacturing competitiveness in the sector should occur annually. All country commercial guides released in the year following delivery of this recommendation should be drafted following the new template and content guide.

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Recommendation:

An interagency effort led by the Department of Commerce, with support from the Departments of State and Energy, should develop planning standards and policy options to determine how to ensure that transmission investments support clean energy export initiatives. The Secretary should urge that the standards developed be utilized by agencies promoting clean energy exports, and utilized by OPIC, EXIM and US multilateral bank representatives in considering future transmission investments.

Sub-Committee: Trade Promotion

Background Information:

According to the World Bank, billions of dollars will be required to expand electricity transmission systems in developed and developing countries in order to achieve targets for renewable energy. While the investment needed in transmission is huge, the major barrier transmission poses to clean energy will stem from the inadequate planning and regulatory practices that have been designed in the context of fossil-fuel-based generation systems.

Traditional approaches to transmission may impede clean energy markets. Traditional transmission regulation and pricing schemes, which have been designed in the context of large, centralized conventional power generation in well-developed transmission networks, frequently render renewable power sources financially nonviable, the World Bank notes. Traditional approaches also ignore an examination and approach to non-wires solutions that involve demand side management opportunities such as energy efficiency and localized, distributed generation approaches, including the use of microgrids.

While transmission has benefits, whether or not a new transmission investment supports clean energy markets needs a new method for review. Planning needs to be overhauled to recognize the resources available and the state-of-the-art technologies available and policies need to be designed to support today's climate change goals.

In promoting clean energy markets and exports of goods and services, the Department of Commerce should take a lead in urging recognition that transmission can be a major barrier to clean energy technologies or an enabler of renewable and clean energy technologies if planned and implemented correctly.

This appears particularly urgent given the number of regional transmission proposals either in progress or under study, now involving Central America, the Caribbean, Central and South Asia, East Africa and South America. The manner in which these lines are planned, and the policies they operate under, will have significant influence on clean energy markets and US exports to those markets.

Transmission initiatives, in order to qualify for support as clean energy initiatives, should meet standards that reflect the needs of today's power systems. In particular, both planning and policy standards should be developed and applied.

Planning should: 1) recognize location of RE resources when planning new transmission, 2) recognize that RE generation is site constrained and tends to be dispersed, creating unique challenges for transmission and distribution, 3) understand the value of the grid to new power technologies (storage) and 4) integrate smart-grid and microgrid capabilities into plans and consider non-wires alternatives.

Policies need to recognize the full value of clean energy production, including meeting climate and renewable portfolio goals. They should address the problem that transmission and interconnection

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investments may be prohibitive from the individual RE producer perspective, but may be small if compared with overall system cost (all G+T+D).

A clear set of planning standards should be developed to apply to pending or future transmission investment proposals to determine whether they should qualify as consistent with international climate policies. A menu of policy options should be developed for countries needing transmission to consider to adopt as part of their climate/clean energy goals such as Clean Renewable Energy Zones, Transmission Clean Energy Standard, technology loading priorities, including transmission/interconnection costs in auction price, and others.

Expected Impact on Export Competitiveness:

Transmission initiatives appear to be widely promoted across the globe. They not only compete for funding with more project specific initiatives, transmission projects by their nature can work to either hinder or help adoption of clean energy technologies. Defining a set of policies to ensure that transmission initiatives support clean energy market development will help expand US exports.

Specific Agencies Responsible for Implementation:

U.S. Department of Commerce

U.S. Department of State

U.S. Department of Energy

Metric to Track Success:

Within 6 months an interagency process should be initiated to proposed transmission planning and policy metrics. Within one year, a report should be published making specific recommendations. Within 18 months the recommendations should be adopted by federal agencies.