

Clean Energy Solutions Center Technical Assistance Support

48th APEC EGEE&C Meeting
11 September, 2016

Erik Ness
U.S. National Renewable Energy Laboratory

Solutions Center Background & Vision

CleanEnergySolutions.org

The Clean Energy Ministerial, an international forum that supports the transition to a global clean energy economy, launched the Clean Energy Solutions Center in 2011.

The Clean Energy Solutions Center (CESC):

- Is one of 9 CEM Initiatives — others include: Energy Management Working Group (EMWG), Super-Efficient Equipment & Appliance Deployment (SEAD)
- Provides no-cost assistance to governments and their partner organizations
- Helps governments design, adopt and implement policies and programs & identify finance mechanisms that support the deployment of clean energy technologies
- Partners with 35+ international energy and finance organizations, including IEA, IPEEC, SE4All, CTCN, Bloomberg New Energy Finance, IRENA, REN21
- Is co-chaired by the U.S. Department of Energy and the Australian Department of Environment & Energy
- Is operated by the U.S. National Renewable Energy Laboratory (NREL)

Services & Resources Offered

CleanEnergySolutions.org

- **Ask-an-Expert**
 - ✧ No-cost, on-demand expert assistance tailored to local needs
 - ✧ Global network of 60+ energy policy and finance experts
 - ✧ Technical assistance on policy barriers to clean energy deployment
 - ✧ Guidance on financing options for clean energy project development
- **Webinars and online training**
 - ✧ Frequent webinars on policy & finance topics in conjunction with partners
 - ✧ Online e-learning courses & training materials (videos, presentations, curriculum)
- **Clean energy policy resources**
 - ✧ Policy briefs, best practice reports, analysis, data and software tools on website
- **Customized assistance and training**
 - ✧ e.g. a week-long capacity-building training on Conducting Energy Efficiency Assessments and Audits delivered in West Africa for the ECOWAS Center for Renewable Energy and Energy Efficiency (ECREEE)

Examples of Online Training & Webinars

- **Renewable Sources in Electricity Markets** - e-learning course prepared for the Asia-Pacific Economic Cooperation Energy Working Group
- **Financial Analysis with RETScreen**
- **Enhancing Financial Flows for Energy Efficiency Investments**
- **Energy Efficiency for Energy Access: Appliance Efficiency in Resource-Constrained Settings**
- **Implementing Building Energy Codes: Implementation and Compliance Actions**
- **Impact of “Phase-Out” Regulations on Lighting Markets and the Associated Policy Implications**
- **Innovative Business Models for Energy Efficiency Financing**
- **Leveraging Ratepayer Programs to Cut Industrial Energy Use**

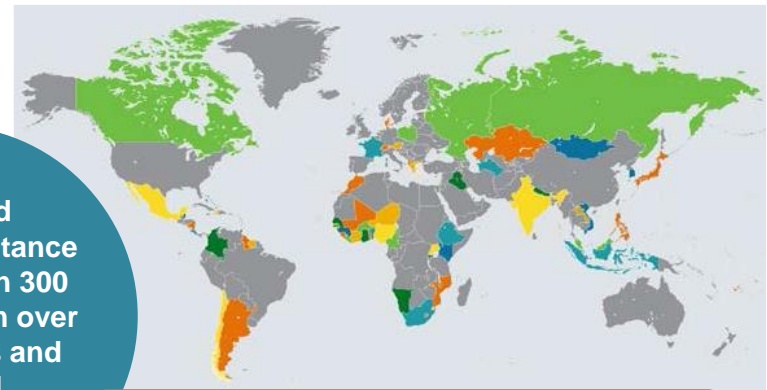
Ask-an-Expert : Solutions to Policy Barriers



CESC connects you to a global network of energy experts for personalized attention and quick-response technical assistance on **strategies, regulations, standards, financial incentives, and deployment programs** for a broad range of clean energy sectors and topics, including: renewable energy, utilities/smart grid, energy access, clean transportation, energy efficiency, and micro-finance.

- Requests can come from staff or officials at **all levels of government** – national, regional, and local.

Delivered
no-cost assistance
for more than 300
requests from over
90 countries and
regional
organizations



To request assistance, go to
cleanenergysolutions.org/expert

- Service also supports organizations working with governments.

Ask-an-Expert : Levels of Support

Solutions Center experts provide various levels of support depending on the complexity of the request:

1. Short turn-around requests : 1 - 20 hours
2. Higher-level support : 20 - 40 hours
3. In-depth support : 40 - 120 hours

- ✧ Potential opportunity to provide on-site support in country locations, especially when others cover travel costs
- ✧ Can include on-site workshops where large number of policymakers are convened, including side events at conferences and events

Assistance Examples : Asia & the Pacific

- Assisted **Indonesia**'s Ministry of Energy & Mineral Resources to develop approaches for engaging banks in offering energy efficiency financing.
 - ✧ CESC experts identified activities designed to engage banks in offering financing for energy efficiency projects and highlighted best practices regarding approaches to identifying financial partners.
- Assisted with development of roadmaps focused on energy efficiency policies and measures at an **Asian Regional Workshop** in Singapore.
 - ✧ Provided in collaboration with the Asian Development Bank (ADB) and the International partnership for Energy Efficiency and Cooperation (IPEEC).
- **India**: Web seminar training on policy best practices for industrial efficiency programs
- **APEC**: Workshop on enhancing the policy environment to promote SME participation in energy efficiency products markets - Viet Nam, Oct. 2016

Assistance Examples : Asia & the Pacific

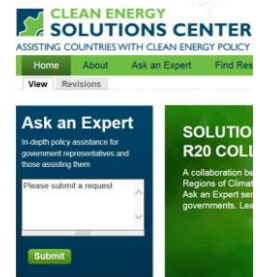
- **Republic of Korea:** assisted with information on how to successfully meet and exceed renewable energy requirements subsequent to the recent implementation of a national renewable energy portfolio standard.
- **Viet Nam:** reviewed renewable energy regulatory/policy frameworks and offered recommendations for policy reforms and finance mechanisms in support of NDC action plan.
- Assisted with development of regulatory measures to meet energy targets in the **Federates States of Micronesia.**
- Hosted training, in partnership with IRENA, focused on setting renewable energy targets for small island states including **Fiji, Vanuatu, Kiribati, Samoa,** and the **Marshall Islands.**
- Supported FiT adoption in **Malaysia** by facilitating partnership between the Malaysian Sustainable Energy Development Authority (SEDA) and the Clean Energy Regulators Initiative (CERI).

Examples of Regional Collaborations

- **Organization of American States (OAS)** - to support Caribbean countries with design and implementation of robust sustainable energy action plans and broader clean energy policy frameworks, resulting in:
 - ✧ Implementation and assessment of key renewable energy projects in Antigua & Barbuda
 - ✧ Launch of an energy efficiency standards and labeling program in Belize
 - ✧ Facilitation of power purchase agreement development in Trinidad & Tobago
- **Economic Community of West African States (ECOWAS)** - to assist 15 member countries with:
 - ✧ Developing national energy efficiency action plans
 - ✧ Gender mainstreaming in energy access policy and regulation

Ask-an-Expert : Assistance Process

1. Government representative submits a request:
 - ✧ Use the Ask-an-Expert form provided on the CESC website
 - ✧ Email requests directly to expert@cleanenergysolutions.org
 - ✧ Contact a Solutions Center policy expert directly
 - ✧ Approach a Solutions Center presenter attending an event
2. Requests are reviewed and an initial response is provided within 2 business days
3. Scoping call between NREL's Ask-an-Expert lead and the requestor is conducted to assess details and scope of policy/program needs
4. Matchmaking – NREL's Ask-an-Expert lead:
 - ✧ identifies the appropriate expert to provide support; matching expertise to policy needs
 - ✧ facilitates introductions and communications between expert and requestor



Ask-an-Expert : Assistance Process

5. Expert works directly with requester and other stakeholders to assure needs are met and results are delivered
6. NREL's Ask-an-Expert project lead monitors progress throughout the assistance process to assure quality service is delivered
7. Details of expert support outcomes and findings are provided in report and/or presentation format (kept completely confidential if so desired)
8. Once completed, requestor completes a feedback survey on how the assistance will be utilized and provides quotes on value
9. NREL's Ask-an-Expert lead and/or expert follows up with requestor in ~6 months to assess progress and outcomes
10. More than one request from a country, region, or locality is permitted

Thank You

Questions?

Erik Ness
U.S. National Renewable Energy Laboratory

erik.ness@nrel.gov
+1 (720) 256-1386

<https://cleanenergysolutions.org>

Additional Slides

The Clean Energy Ministerial (CEM)

Promotes policies & programs to support the transition to a global clean energy economy.

Participants (25):

Australia, Brazil, Canada, Chile,
China, Denmark, European
Commission, Finland, France,
Germany, India, Indonesia, Italy,
Japan, Korea, Mexico, Norway,
Russia, Saudi Arabia,
South Africa, Spain, Sweden,
United Arab Emirates,
United Kingdom, United States

Initiatives (9):

21st Century Power Partnership (21CPP)
Clean Energy Education & Empowerment (C3E) - women
Clean Energy Solutions Center (CESC) - policy
Electric Vehicles Initiative (EVI)
Energy Management Working Group (EMWG)
Global Lighting & Energy Access Partnership (LEAP)
International Smart Grid Action Network (ISGAN)
Multilateral Solar & Wind Working Group
Super-Efficient Equipment & Appliance Deployment (SEAD)



The Clean Energy Ministerial (CEM)

Participation in Clean Energy Ministerial Initiatives and Campaigns

August 2016

	AUSTRALIA	BRAZIL	CANADA	CHILE	CHINA	DENMARK	EUROPEAN COMMISSION	FINLAND	FRANCE	GERMANY	INDIA	INDONESIA	ITALY	JAPAN	KOREA	MEXICO	NORWAY	RUSSIA	SAUDI ARABIA	SOUTH AFRICA	SPAIN	SWEDEN	UNITED ARAB EMIRATES	UNITED KINGDOM	UNITED STATES
Initiatives																									
APPLIANCES (SEAD)	●	●	●	●		●			●	■	●			●	●		●	●	●	●	●	●	●	●	■
ELECTRIC VEHICLES (EVI)			●	■					●	●				●	●		●			●		●	●	●	■
ENERGY MANAGEMENT (EMWG)	●		●	●			●		●	●	●			●	●	●			●	●		●	●		■
21 ST CENTURY POWER (21CPP)						●	●				■					●				●	●				■
ENERGY ACCESS (GLOBAL LEAP)													●						●	●				●	■
SMART GRIDS (ISGAN)	●		●		●	●	●	●	●	●	●		■	●	■	●	●	●		●	●	■			■
SOLAR AND WIND						■			●	■	●	●		●	●	●	●		●	●		■			●
CLEAN ENERGY POLICY (SOLUTIONS CENTER)	■		●						●		●	●	●			●						●			■
WOMEN IN ENERGY (C3E)											●			●		●				●			●	●	■
Campaigns																									
ADVANCED COOLING CHALLENGE			●		●						●								●						●
CORPORATE SOURCING OF RENEWABLES CHALLENGE					●	●	●			●						●							●		●
ENERGY MANAGEMENT CAMPAIGN			●	●			●		●		●			●	●	●							●		●
GLOBAL LIGHTING CHALLENGE					●		●		●	●	●	●			●	●		●		●		●	●	●	●
POWER SYSTEMS CHALLENGE						●	●	●	●	●	●	●		●	●	●	●			●		●	●		●

Non-CEM countries, non-governmental organizations, and private businesses also participate in selected initiatives and campaigns.

■ Lead ● Participant