

## Fact Sheet: 21<sup>st</sup> Century Power Partnership

### Overview

In 21st century power systems, electricity from variable renewable sources will be delivered through smart, efficient networks and balanced by a variety of flexibility options, such as demand response, storage, and smart electric vehicle (EV) charging. Developing such systems will require new global partnerships focusing on technical excellence, targeted innovation, and smart policy and regulations, supported by sustained financial and political investment and ambitious public-private sector collaboration.

The 21st Century Power Partnership aims to accelerate the transition to clean, efficient, reliable and cost-effective power systems. Engaging in a broad range of research and technical assistance activities, the Power Partnership is scaling up multilateral collaboration in order to accelerate the diffusion of high-impact policy and regulatory strategies. The Power Partnership seeks to add value to ongoing power system transformation efforts by expanding the network of expertise, accelerating learning and knowledge sharing, and elevating the visibility of national efforts.

### Key Activities

- **In-Country Support for Policy and Regulatory Implementation.** 21CPP facilitates technical assistance and peer learning to support national and subnational activities. 21CPP currently maintains three country-specific technical assistance programs in India, Mexico, and South Africa.
- **Thought Leadership and Knowledge Sharing.** 21CPP coordinates targeted knowledge development, thought leadership, and exchange efforts across CEM initiatives. The Partnership aims to advance research that is uniquely systemic in nature.
- **Strengthening and Disseminating Tools.** 21CPP supports the development of new tools (or enhancements to existing tools) for electricity sector analysis, planning, and management.
- **Bolstering Expert Capacity.** Transforming the power sector to clean and efficient systems requires expert capacity. 21CPP activities include knowledge and staff exchanges, site visits, and collaborative training programs.

### Progress and Accomplishments

Since CEM5, the following key accomplishments represent progress toward 21CPP's overall goals and objectives:

- Launched the 21CPP Fellowship Program, which supports mid-career mentorship and cooperative research opportunities between 21CPP member countries.
- Launched an online resource library on key issues in Distributed Generation Regulation.
- Produced two keystone thought leadership reports, entitled "Power Systems of the Future" and "Status Report on Power System Transformation", which provide a typology for understanding emerging pathways of power system evolution along with real-world examples of power system innovation.

- Published a Renewable Energy Roadmap for India, which was endorsed by the Minister of State at the RE-INVEST conference in February 2015.
- Provided multilateral audits, peer reviews and technical assistance in support of South Africa’s proposed regulation on “small-scale embedded generation”.
- Hosted delegations from India, South Africa, and Mexico at the Utility Variable-Generation Integration Group’s (UVIG’s) Fall Technical Workshop in San Antonio, Texas.
- Co-convened a global regulatory workshop and technology demonstration event at the IBM Thomas J. Watson Research Center in Yorktown, NY.
- Published and presented a technical paper on a Valuation-Based Framework for Distributed Generation Photovoltaic Tariff Design at India Smart Grid Week 2015.
- Coordinated with the Clean Energy Solution Center on Initiative webinars and Ask-an-Expert engagements.

## Other Recommendations

The following collective activities should be undertaken in 2015-16 to increase the ambition and significantly expand the work of the 21CPP:

### ***Increased Contributions of In-Kind Resources (e.g. expertise):***

- **Provide expert assistance to support in-country work and contribute to Thought Leadership reports.** Four types of expert assistance are needed: participation in peer-to-peer exchanges on key topics; participation in targeted analysis projects; and support for in-depth modeling and tool development.
- **Share analytical tools and models.** Most 21CPP Steering Group member governments have developed analytical tools and models for national use. Sharing and open-sourcing these tools and models, as appropriate, will expand the range and increase the quality of tools available to all 21CPP members.

### ***Increased Leveraging of Financial Resources:***

- **Coordinate inter-agency work programs to support in-country work.** Most PPSG representatives come from energy ministries, but have the opportunity to coordinate with their sibling ministries (i.e. aid agencies, economic development agencies) to leverage financial resources through the common platform of the 21CPP. This coordination will result in greater impact and expanded scope of work in India, Mexico, and South Africa.

## Current Participants and Partners

Power Partnership Steering Group (PPSG) members include the governments of India, Mexico, the United States, Denmark, Spain, Finland, and South Africa, and representatives of the Children’s Investment Fund Foundation (CIFF). Public Private Leadership Forum (PPLF) members include representatives of Alstom Grid, CISCO, Deutsche Bank, Duke Energy, Electric Power Research Institute, Eskom, IBM, International Copper Association, Impax Asset Management, Johnson Controls Inc., Korea Energy Management Company, PensionDanmark, Schneider Electric, Shell, and Siemens.