

## CEM7 Roundtable Topic

### *Government Procurement and Demonstration of Clean Technology*

#### OVERVIEW

Building and energy infrastructure interact to create a complex but vital system, providing the foundation for economic activity, safety, and livability. The complexity of this system creates challenges for government officials who must consider the potential system-wide effects of implementing new technologies. Yet, it also creates opportunity, providing a variety of places for governments to embrace new offerings from the private sector that will make energy systems more efficient, safer and lower carbon. While R&D and innovation may be most associated with government's role in advancing clean energy, the large-scale procurement and of implementation of emerging and/or existing technologies as well as products and services can be equally important in helping to catalyze markets, demonstrate feasibility, and make the 'business case' for those technologies. It can also spur domestic industries and stimulate economies.

Government procurement accounts for 10-15 per cent of the GDP of an economy on average.<sup>1</sup> In the United States, the federal government owns or leases more than 430,000 buildings and 650,000 vehicles and is the world's largest consumer of energy and vehicles. Extrapolate those figures globally and the impacts that government procurement can have on the clean energy industry is demonstrated. At the local, regional and national level, the purchasing power of governments can be transformative. For example, in an effort to spur the sales of electric vehicles (EVs), in 2009 the French government coordinated the purchase of 50,000 EVs and more recently passed a law to prioritize EVs in government procurement<sup>2</sup>. A green public procurement program in China incentivizes businesses to invest and innovate in clean products and services. The U.S. Department of Energy is partnering with utilities on projects to demonstrate the integration of solar technologies with energy storage.<sup>3</sup>

Through the procurement of emerging or commercial clean energy technologies, governments can help to reduce the risk associated with launching new products and companies, while enabling them to meet their national carbon emission reduction targets.

Since both local and national governments have different levels of control as well as varying levels of comfort with deploying new technologies, this workshop will explore

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<sup>1</sup> According to the World Trade Organization,

[https://www.wto.org/english/tratop\\_e/gproc\\_e/gproc\\_e.htm](https://www.wto.org/english/tratop_e/gproc_e/gproc_e.htm)

<sup>2</sup> [https://www.iea.org/publications/globalevoutlook\\_2013.pdf](https://www.iea.org/publications/globalevoutlook_2013.pdf)

<sup>3</sup> <http://energy.gov/articles/energy-department-announces-18-million-develop-solar-energy-storage-solutions-boost-grid-0>

ways in which governments can take an active role in testing the most promising technologies for their own needs as well as the role they can play in accelerating clean energy markets.

## **STRUCTURE OF THE ROUNDTABLE**

This roundtable will explore how governments can act as “test-beds” for emerging clean-energy and energy efficient technologies and policies - both for demonstrating the efficacy of new technologies as well as scaling ones that need market penetration. The discussion will focus on how governments can partner with industry and leverage public procurement to accelerate the up-take and demonstration of innovative energy technologies (i.e. expanding public fleets of electric vehicles, retrofitting government buildings with LED light-bulbs, supporting ICT and data tools for digital energy services) and policies (energy management systems).

During the discussion, the roundtable could showcase specific examples including:

- A company that has used its own facility or campus as a test bed for building and energy technologies and how that can serve as an example for government.
- A government that has created policies or programs for streamlining procurement processes to enable the deployment of clean technologies.
- A start-up company that, in partnership with the government, brought proven technology to scale.
- A large firm that has successfully operated an internal procurement initiative related to clean energy and energy efficiency

## **POTENTIAL DISCUSSION QUESTIONS**

The discussion will focus on clarifying the best role for government and the potential impact of successful procurement. Best practices and case studies as well as recommendations for overcoming barriers will be highlighted as well. Specific questions could include:

- What is the role that government can and should play in scaling-up, prototyping, testing, and validating clean energy innovations?
- Should governments work to have an impact on the technological “valley of death”, the commercialization “valley of death” or both?
- What policies and programs can be adopted at the national and international levels to support the use of new technologies locally and regionally?
- What are some examples of how cities and regions are launching “test-beds” and what has worked?
- Which countries have offered national level funding to support fund government run technology test-beds?

- What are the technologies that have been most successfully deployed on government property and what opportunities still exist?
- What are the current clean energy technologies that are proven but do not yet have a market?
- What are the existing barriers (political, financial, and systematic) for supporting innovation lab type activities and solutions to those barriers?
- What are some of the existing barriers (attitudinal, legal and logistical) that have prevented governments from experimenting more with testing and scaling new technologies?
- What are existing processes by which governments have deployed and tested new technologies? How have they lowered or changed existing barriers in the traditional procurement process?

### **EXPECTED OUTCOMES**

- Identify the key technologies or technology areas for government procurement
- Alignment between governments and the private sector about the needs and opportunities for clean energy procurement opportunities.
- A clear understanding of what barriers can be addressed and specific suggestions for how to overcome those barriers.
- Sharing of best practices in policy and market design to enable more government procurement of clean energy technologies.

### **POTENTIAL PARTICIPANTS**

- Ministers, especially from countries identified as having robust procurement and demonstration programs.
- Representatives from industry that have partnered with governments.
- Innovation and entrepreneurship spokespersons.