## Identifying Gaps in Energy Efficiency and Conservation Projects Supported by APEC

49<sup>th</sup> Meeting of the APEC Expert Group on Energy Efficiency & Conservation

29 March 2017

Alon Abramson, Project Manager, Penn IUR





- APEC Leaders identified promotion of energy efficiency as a priority action in addressing energy security and reducing greenhouse gas emissions.
- 2010: Energy Smart Communities Initiative announced to support energy intensity goal
- 2011: leaders increase aspirational goal of energy intensity reduction of 45 percent by 2035 at the 19th APEC Economic Leaders' Meeting in Honolulu, United States
- 2016 Leaders Declaration: "APEC objectives and goals must remain focused on improving the lives of our people."



- Three-phase program to determine gaps in the program support by the APEC EWG in Energy Efficiency and Conservation
- Phase 1:
  - Systematic analysis of APEC-sponsored projects 1993-2016
  - Review existing best practices in ESCI and other sources
  - Contextualize findings with economy energy profiles
    - Sectoral energy use
    - Policy landscape
    - Economic and developmental conditions
    - Climate conditions
- Phase 2:
  - Individual Surveys
    - Perceived needs for information and skill development
- Phase 3:
  - Individual Interviews
    - More in-depth probe into perceived needs





- Begin by answering three basic questions:
- 1. What are the desired program impacts?
  - **MISSION:** advance economic and social well-being, and realize environmental benefits through energy conservation and the application of energy-efficiency practices and technologies
  - OBJECTIVES:
  - a. Energy security and securing adequate and affordable energy services
  - b. Application of demonstrated EE practices and technologies
  - c. Enhanced trade in EE products and services
  - d. Mitigation of adverse impacts of energy production and consumption
  - e. Capacity development (analytical, technical, operational, and policy)

#### 2. Who is to produce those impacts?

- a. knowledge firms,
- b. policy makers and public entities,
- c. manufacturers and businesses, and
- d. end users

#### 3. Are conditions in place to allow the target actors to produce impacts?

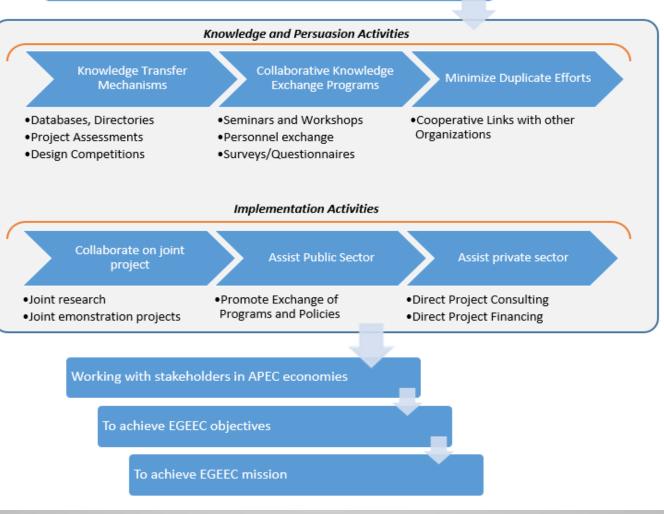
a. Analysis based on the theory of technology diffusion.





### Program Logic Model

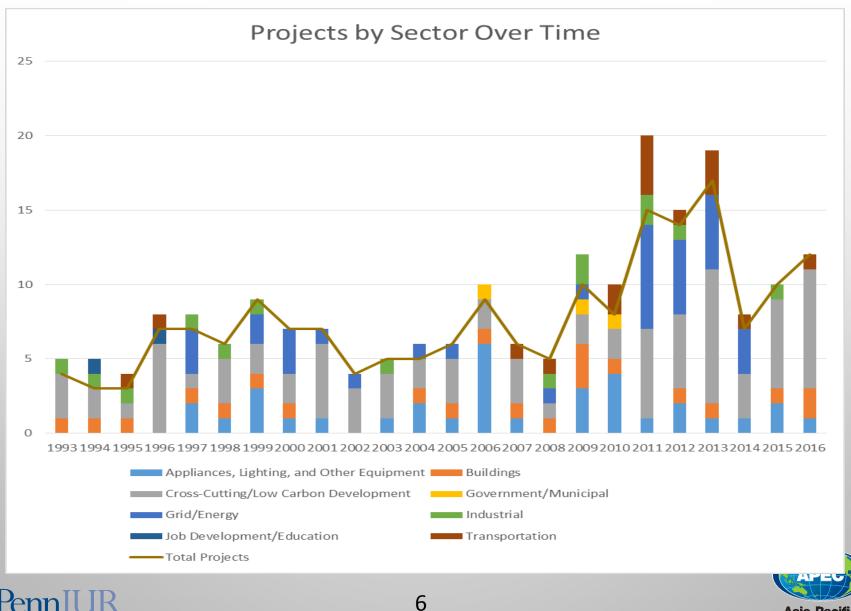
## **Technology or Practice**



Penn Institute for Urban Research

Asia-Pacific Economic Cooperation

## Initial Analysis (1/2)

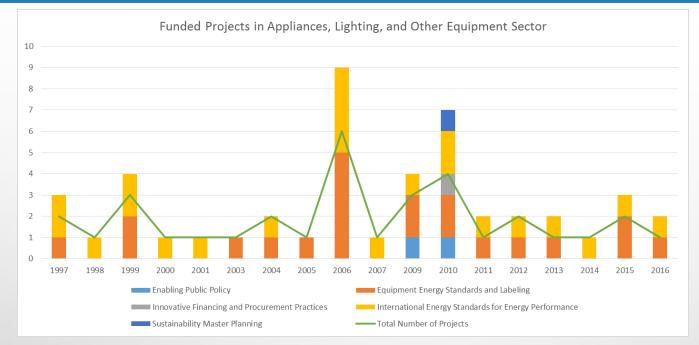


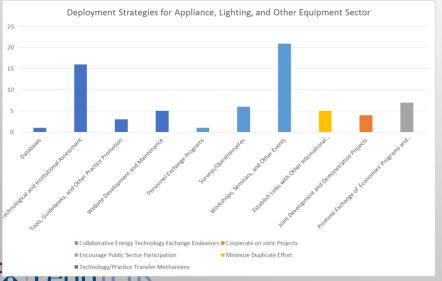
PENN INSTITUTE for URBAN RESEARCH

Asia-Pacific Economic Cooperation

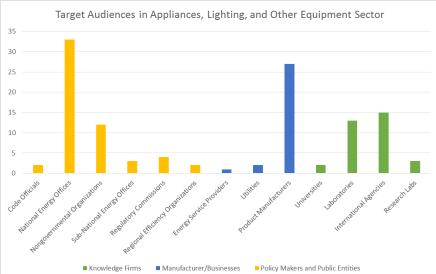
### Initial Analysis (2/2)

7





PENN INSTITUTE for URBAN RESEARCH



Asia-Pacific Economic Cooperation

# Thank You

#### **Dr. Eugenie Birch**

Principal Investigator, Co-Director, Penn Institute for Urban Research elbirch@upenn.edu

Amy Montgomery Managing Director, Penn IUR amylmo@upenn.edu

Alon Abramson Project Manager, Penn IUR alonabra@upenn.edu



