DOCKETED

Docket Number:	17-EPIC-01
Project Title:	Development of the California Energy Commission Electric Program Investment Charge 2018 â€“ 2020 Triennial Investment Plan
TN #:	215868
Document Title:	Felicia Federico Comments: Commercial / Industrial Sector Energy Intensity and Generation Potential
Description:	N/A
Filer:	System
Organization:	Felicia Federico
Submitter Role:	Public
Submission Date:	2/10/2017 3:08:25 PM
Docketed Date:	2/10/2017

Comment Received From: Felicia Federico
Submitted On: 2/10/2017
Docket Number: 17-EPIC-01

Commercial / Industrial Sector Energy Intensity and Generation Potential

Additional submitted attachment is included below.

CALIFORNIA ENERGY COMMISSION
1516 NINTH STREET
SACRAMENTO, CA 95814-5512
www.energy.ca.gov

The Energy Commission is currently soliciting ideas and stakeholder input for the 2018 – 2020 EPIC Triennial Investment Plan. For those that would like to submit an idea for consideration in the 2018-2020 EPIC Triennial Plan, we ask that you complete the form below. Submittals are due by **5:00 p.m. on February 10, 2017.**

Part 1. Initiative Description and Purpose:

1. Please provide a brief description of the proposed initiative:

We propose that the California Energy Commission support research that prioritizes statewide energy conservation investments for commercial and industrial sectors based on coupled analysis of sector-specific demand and supply considerations. In particular, investments that identify sector-specific estimates of both energy intensity of operations (demands) and compatibility of renewable generation (supply) would advance community-wide zero-net-energy goals. Such research would help target energy efficiency investments and allow municipalities to devise policy mechanisms for reducing greenhouse gas emissions.

2. What technical and/or market barriers would the proposed initiative help overcome? For scientific analysis and tools, what knowledge gaps would the proposed initiative help fill?

The initiative would help overcome barriers utilities face in working with commercial and industrial end-users to promote energy and water conservation. It would fill a gap in knowledge related to developing targeted energy efficiency plans, which would be applicable to statewide and establish national precedent.

Part 2. Benefits and Impacts

3. If this initiative is successful, either fully or partially, what would be the expected impact? Who are the primary users and/or beneficiaries?

The research initiative would benefit municipalities throughout the state that must meet stringent greenhouse gas emissions reduction targets through Climate Action Plans. These localities must understand the energy and GHG profiles of various users and collaborate on developing targeted programs that can improve commercial/industrial practices while also helping to meet state regulatory goals. Beneficiaries would also include commercial and industrial end-users who could capitalize on more targeted investment programs to promote long-term energy (and monetary) savings.

4. Describe what quantitative or qualitative metrics or indicators would be used to evaluate the impacts of the proposed initiative:

The initiative would develop metrics of energy intensity (energy use per square-foot) and net solar potential (excess on-site generation potential) across commercial and industrial sectors. Sectors would be delineated according to standard industrial classifications, including the North American Industrial Classification System (NAICS) or Standard Industry Classifications (SIC) commonly used by utilities. This would allow an examination of the relationships between standard classifications and energy metrics, and the creation of new categorizations that better inform GHG reduction strategies.

5. Please provide a list of peer-reviewed references that support the responses for questions 3 and 4. Proposed initiatives that include peer-reviewed references will be given stronger consideration.

Hasanbeigi, Ali, Stephane de la Rue du Can, and Jayant Sathaye. "Analysis and decomposition of the energy intensity of California industries." Energy policy 46 (2012): 234-245.

Ma, Chunbo, and David I. Stern. "China's changing energy intensity trend: A decomposition analysis." Energy economics 30.3 (2008): 1037-1053.

Porse, Erik, et al. "Structural, geographic, and social factors in urban building energy use: Analysis of aggregated account-level consumption data in a megacity." Energy Policy 96 (2016): 179-192.

6. (For technologies only) What competitive advantages does the proposed technology solution have over current benchmark technologies? If the technology is beyond the prototype stage, what strategies do you suggest to bring to scale?

Part 3. Connection to Energy Commission's EPIC Framework
Energy Commission staff have developed a draft strategic framework to guide the CEC's planning and implementation of EPIC across triennial investment cycles. One of the objectives of the draft strategic framework is to communicate a consistent set of priorities for organizing current and future EPIC investments.

7. Please indicate which of the following strategic framework themes you feel the proposed initiative best fits within:
    - Advance Technology Solutions for Deep Energy Savings in Building and Facilities
    - Accelerate Widespread Customer Adoption of Distributed Energy Resources
    - Increase System Flexibility from Low-Carbon Resources
    - Increase the Cost-Competiveness of Renewable Generation
    - Create a Statewide Ecosystem for Incubating New Energy Innovations
    - Maximize Synergies in the Water-Energy-Food Nexus
    - Develop Tools and Analysis to Inform Energy Policy and Planning Decisions
    - Catalyze Clean Energy Investments in California's Underrepresented and Disadvantaged Communities

If Other, Please Specify