

# All-Source Solicitation In Utility Procurement

...or, how I learned to love  
Energy Efficiency  
as an *incremental* resource.

Philip Henderson  
Natural Resources Defense Council  
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# **Context:** Utility procurement in traditionally regulated markets

Starts with a resource need.

- A utility needs more generation to meet forecasted demand.
- Distribution upgrades to serve growth areas.
- Transmission capacity.

Traditional Procurement:

- Utility planners select resource to procure.
- Very wide discretion to select appropriate resource within regulatory requirements.

# All Source Solicitation – an intermediate step to test the market

- Solicit proposals for creative alternatives that could fulfill the resource need.
- Document prices and attributes of alternatives.
- Compare alternatives using neutral criteria + policy preferences.

- Gas CT or CC
- Storage
- Utility Solar
- Wind
- Energy Efficiency
- Demand Response
- Microgrids
- CHP
- Distributed Solar

Does planning / IRP already require evaluation of competing resources? Yes, but that's not enough....

1. IRP often commits to all cost-effective EE from potential study.
  - *Additional incremental* EE (or DR...) could be higher-value / lower-cost than conventional resources.
2. Price of resources can change rapidly.
3. Innovation is delivering new functions rapidly.
4. Planning roadmap may not drive procurement.
5. Culture favoring known resources
6. Self-build incentives in some cases.



**ANALYSIS GROUP**

ECONOMIC, FINANCIAL and STRATEGY CONSULTANTS

**Competitive Procurement of  
Retail Electricity Supply: Recent Trends in  
State Policies and Utility Practices**

**Susan F. Tierney, Ph.D.  
Todd Schatzki, Ph.D.  
Analysis Group**

**Boston, Massachusetts  
July 2008**

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*2008 Report to NARUC and FERC:*

***“[T]here is now considerable experience in designing competitive procurements, although actual experience with implementation is somewhat more limited.”***

# California

Resource need: San Onofre Nuclear facility and Aliso Canyon.  
CPUC ordered additional capacity – approximately 1,500 MW of power from preferred resources.

**SDG&E.** In 2014 issued all-source RFO for 500 to 800 MW. Expressly sought bids for energy storage, demand response, and related clean energy sources.

- Approved 500 MW gas plant (Carlsbad)
- 18.5 MW EE
- 37.5 MW Storage
- Additional procurements of storage and DR followed

***Southern California Edison.*** SCE sought 1,900 to 2,500 MW to meet capacity requirements.

- 120 MW EE
  - 75 MW DR
  - 260 MW storage
  - Procurements continue
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- *NB.* Challenges described in SCE Testimony on Results of its 2013 Local Capacity Requirements.

# NY ConEd BQDM

Resource Need: ConEd projected \$1 billion on distribution substation upgrade to serve area of growth.

- 2014 NYPSC ordered ConEd procure 52 MW of “customer-side” & “non-traditional utility-side solutions” to defer upgrades until 2026.
- ConEd issued RFI and procured:
  - EE through “direct install” programs and incentives
  - CHP
  - Cooperative EE program with NYCHA
  - Energy Storage
- Jan. 2017 - ConEd will achieve, under budget, more demand reductions assumed necessary to defer infrastructure.



# Arizona

- 2016 Arizona Public Service (APS) issued All Source RFP for 400 to 600 MW.
- Solicited thermal generation, energy storage, renewables, and DSM.
- Bids had to be minimum of 25 MW aggregate size.
- RFP stated a preference for resources dispatchable between hours of 3pm and 9pm, June to September.
- December 2016 -- APS reported agreements for 565 megawatts capacity from Arlington Valley combined cycle power plant for six years.

# Texas Standard Offer – Procurement of Incremental EE

- Distribution utilities in Texas -- programs pay commercial contractors pre-defined price per kw / kwh for energy use reductions expected from projects.
- Proof point of reliability of EE as an incremental resource.
- Program evaluation of Centerpoint PY 2015
  - 76,000,000 kwh saved
  - 12,000 kw load reduction
  - Portfolio cost effectiveness greater than 2.

# Demand-Side Resources in Wholesale Capacity Markets

- Generators on the system paid others (often utilities) a market-clearing price to operate energy efficiency programs in order to free up capacity on the transmission system.
- Proof point of reliability of EE and demand-side management as a utility resource.

**PJM.** Over 1,500 MW of energy efficiency cleared 2016 market (for 2019/2020).

**ISO NE.** 2,250 MW of energy efficiency cleared in 2016.

# Lessons Learned & How To

- 1. Describe resource need with specificity and full information to allow potential suppliers to offer creative solutions.**
- 2. Define evaluation criteria for resource selection.**
- 3. Full RFP not required.**
  - RFI with less rigorous /directional. Proposals not actionable.
  - Will providers give real prices if not an RFP?
  - Consider staged approach. Request proposals in RFI, then full proposals & firm prices from selected resources.

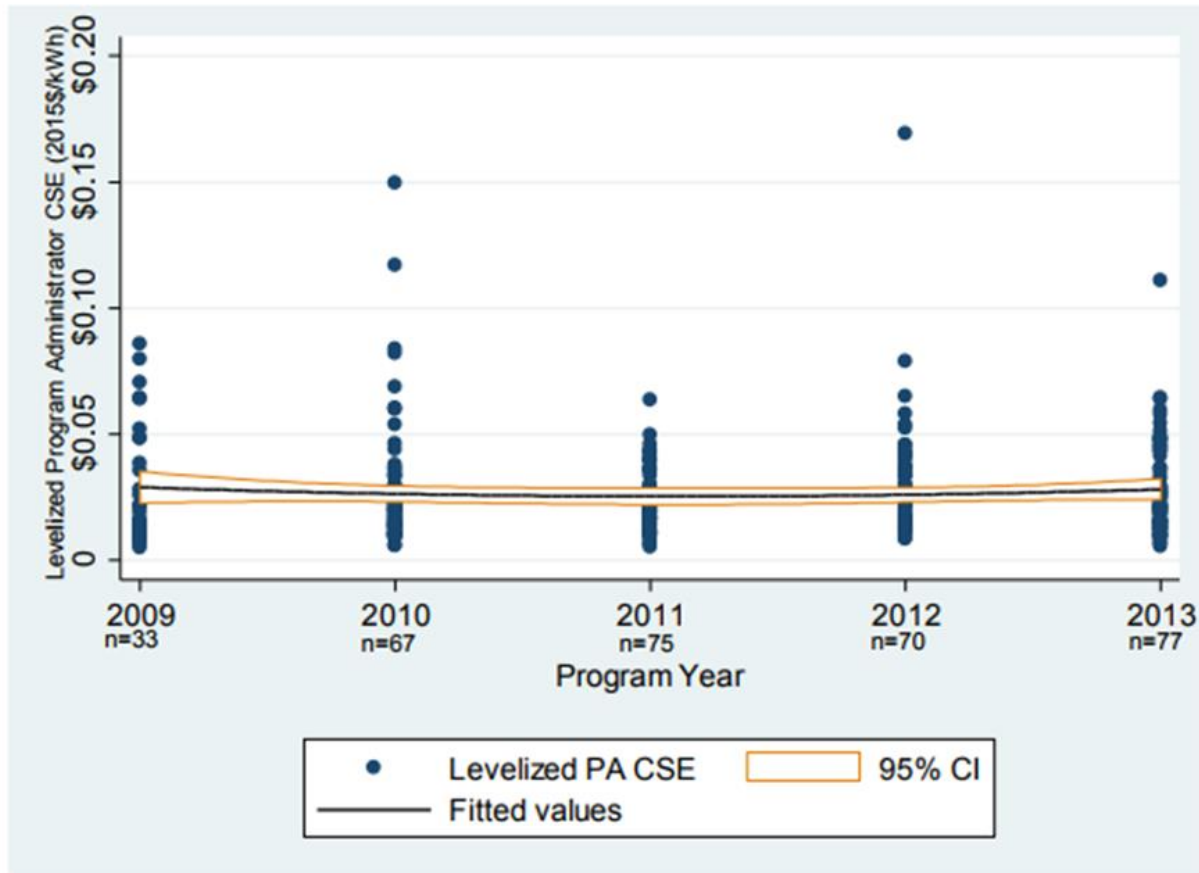
#### **4. All Source Solicitation does not change procuring entity's discretion.**

- When evaluating proposals, judgement is necessary.
- Consider selecting mix of resources to fulfill goals.
- Requires judgement, expertise, and subjective risk evaluation.
- Requires full information about the utility system, planning requirements, demand forecasts, and more.

**Transparency will go a long way to reduce potential disagreement about selection.**

# For utility regulators

1. Establish independent oversight of process.
2. Allow for stakeholder involvement (where practical).
3. Consider addressing utility return on investment for DER.
4. Solicitation process does not change discretion of procuring entity to select appropriate resources.
5. **Solicitation is NOT a substitute for policy to procure all cost effective EE !**



**Figure 2. Portfolio-level results: Trends in the program administrator cost of saved energy for each program administrator between 2009 and 2013**

Source: LBNL DSM Program Database, 2009-2013

A nationwide view of energy efficiency programs, see Hoffman, Leventis, and Goldman, Trends in the Program Administrator Cost of Saving Electricity for Utility Customer-Funded Energy Efficiency Programs, Lawrence Berkeley Laboratory (2017). Located online here: <https://emp.lbl.gov/projects/what-it-costs-save-energy>