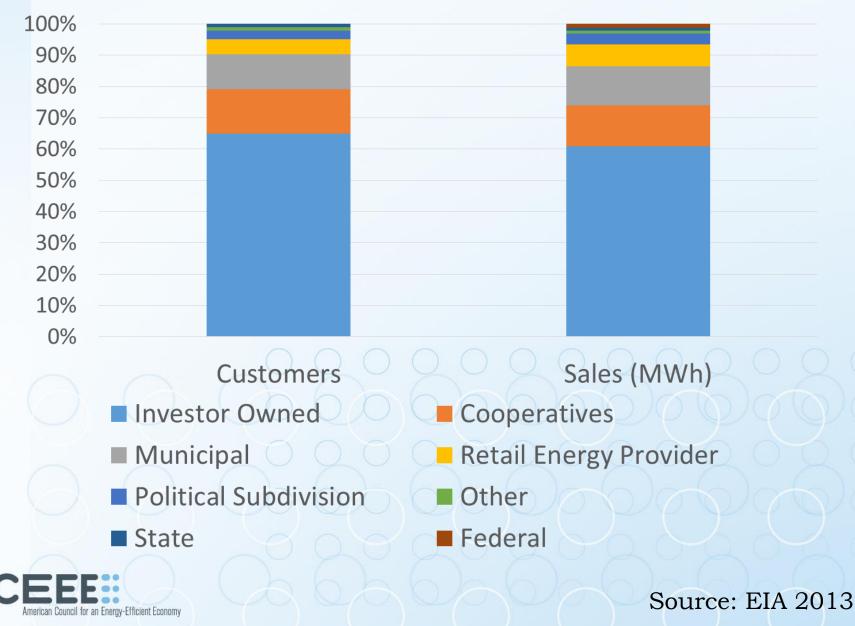


#### Municipal Utility Energy Efficiency: Examples from Around the Nation

Brendon Baatz, ACEEE National Conference on Energy Efficiency as a Resource, Little Rock, Arkansas September 22, 2015

#### **2013 Sales and Customers**



#### **Research Goals**

- Provide visibility to energy efficiency efforts in the public power sector (given that so much effort has been directed toward the IOU sector), focusing on the municipal utility sector.
- 2. Identify and document examples of strong energy efficiency performance in the municipal utility sector.
- 3. Identify factors influencing municipal utility decision making regarding energy efficiency program implementation.
- 4. Identify challenges faced by municipal utilities in implementing energy efficiency programs.



#### Methodology

- Surveys
- Interviews
- Review of publically available documents
  - Integrated resource plans
  - Energy efficiency plans
  - Evaluations
  - Other city planning documents

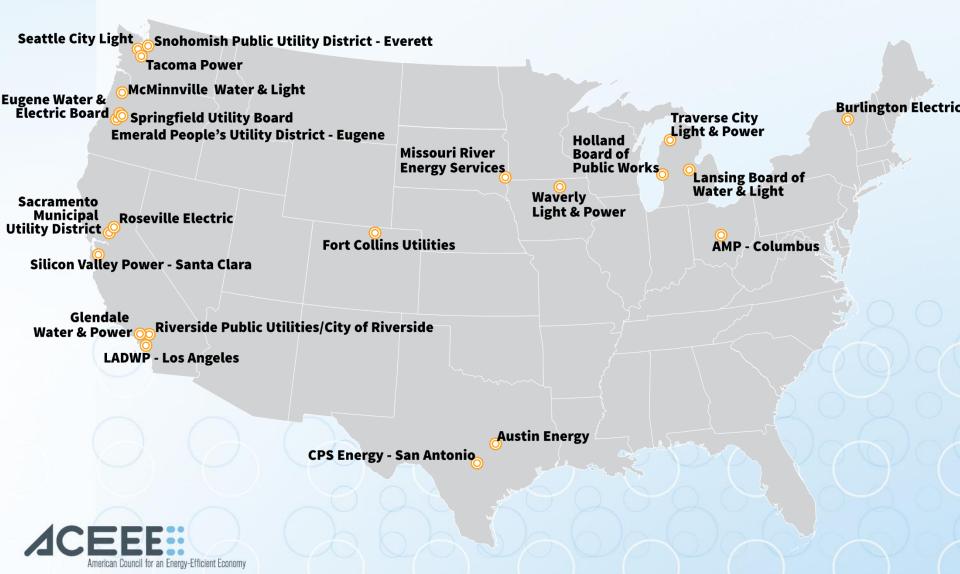


#### **Municipal Utility Survey**



American Council for an Energy-Efficient Economy

# **Municipal Utilities in Report**



#### **Energy Savings and Spending**

Our sample of 23 utilities:

- savings as % of retail sales
  Mean = 1%
  - Range = 0.3% to 1.75%
- spending as % of revenues
  - Mean = 2.3%

Range = 1% to 4.7%

EIA 2013 data of 140 municipal utilities - savings as % of retail sales Mean = 0.68% Range = 0.01% to 2.22%



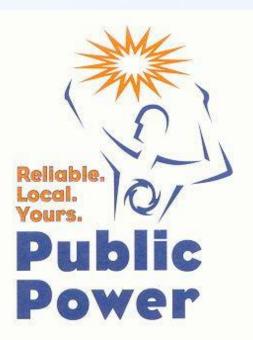
# **Energy Savings and Spending**





#### **Municipal Power Agency Structure**

- City councils
- Citizens
- Jurisdiction
- Non-profit





#### **Challenges: Revenue Adequacy**

Loss of sales = loss of revenues

- This can be avoided!
  - Proper forecasting
  - Rate adjustments
  - Decoupling



# **Motivating Factors: Survey**

Factor	Average Rating	Range
Efficiecny is a resource customers like	8.5	5 - 10
Value of efficiency as a supply side resource	7.8	4 - 10
Economic benefits in service territory	7.7	5 - 10
Municipal government requirement	7.6	0 - 10
Greenhouse gas reduction (as part of plan)	6.5	0 - 10
State policy or regulatory requirement	6.3	0 - 10
Reduces supply costs	6.3	0 - 10
Other environmental benefits	6.3	0 - 10



# **Motivating Factor: State Policy**

- California
  - AB 1890 (1996)
    - Public benefits charge to fund program
  - SB 1037 (2005)
    - Annual reporting requirements to CEC and customers on energy efficiency and demand response
    - AB 2021 (2006)
      - Directs utilities to identify all cost effective savings to establish 10 year targets



-

# **Motivating Factor: State Policy**

- Michigan
  - PA295 (2008) EERS for all utilities of 1% savings per year
- Washington
  - I-937 (2006) utilities serving over 25k customers must pursue cost effective programs



#### **Motivating Factor: Savings Targets**

- Fort Collins Utilities
  - 2015: 1.5% to 2020: 2.5%
- CPS Energy (San Antonio, TX)
  - Save Energy for Tomorrow
  - Save 771 MW between 2009 and 2020



# Motivating Factor: Economic Development

- Survey 7.7 average rating from respondents
- Interviews strong economic development benefit of efficiency
  - **Bottom line**
  - Electricity prices
  - Customer discretionary income
  - Local jobs



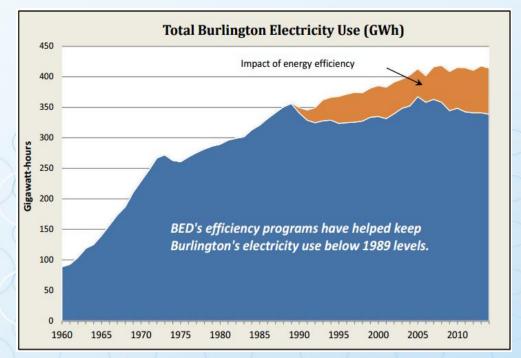
# Motivating Factor: Customer Engagement and Satisfaction

- Survey 8.5 average rating from respondents
- Participation in utility programs increases customer satisfaction



#### Motivating Factor: Energy Efficiency as a Resource

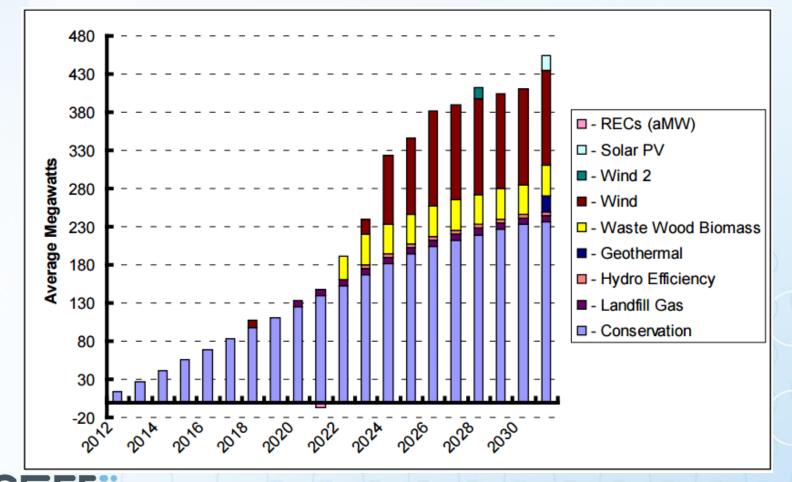
- Survey 7.8 average rating from respondents
- Reduced future customer demand, rates and energy supply costs





#### Motivating Factor: Energy Efficiency as a Resource

Council for an Energy-Efficient Economy



Seattle City Light 2012 IRP

# Conclusions

- Leadership
  - Public power utilities are providing leadership in energy efficiency program implementation.
- Opportunity
  - Significant opportunity exists to do more with a demonstrated model.
- Barriers
  - Fewer barriers than IOUs to implementing energy efficiency programs.



#### **Report Forthcoming...**

Municipal Utility Energy Efficiency: Successful Examples from Around the Nation

# October 2015

#### aceee.org





# Thank you!

