EEMIS: Enterprise Energy Management Information System

Local Government Partnership Meeting
November 17, 2015

Presented by: Lena Luna
Senior Project Manager, Energy

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Acknowledgments

• EEMIS implementation (2011-2014) funded by CA ratepayers under the auspices of the California Public Utilities Commission (CPUC) through the California Energy Efficiency Strategic Plan (CAEESP) grant awarded by Southern California Edison (SCE).

• Current EEMIS program (2015) funded by CA ratepayers under auspices of the CPUC; integrated into SCE/SCG Local Government partnership funding
CA Energy Efficiency Strategic Plan Funding

#1 Strategic Plan menu item selected by 101 local governments partners – utility bill manager

- CPUC’s long-term California Energy Efficiency Strategic Plan (CAEESP)
  - Local governments lead by example
  - Establish utility bill manager to track municipal energy usage to **plan**, **budget**, and **manage**
  - AB 32, CA Loading Order
Enterprise Energy Management Information System

A system providing information of local government’s (or organization’s) energy use, including electricity, natural gas, and other commodities.
One year of paper bills

One year of data in EEMIS

The Problem ➔ The Solution

Multi-level Bill History

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Note: Data is not prorated to fiscal periods
EEMIS-Enrolled South Bay Cities

Carson
El Segundo
Gardena
Hawthorne
Hermosa Beach
Inglewood
Lawndale
Lomita
Manhattan Beach
Palos Verdes Estates
Rancho Palos Verdes
Redondo Beach
Rolling Hills Estates
Torrance
3 Questions

1. Where are we currently?
2. Where do we want to go?
3. How do we get there?
#1. Where are we currently?
#1. Where are we currently?

**Web-accessible utility bill manager:**

- Automate month-end utility bill data
- Reduce city staff time searching for paper bills
- Supply timely and credible energy usage and budget information
- Expedite energy project development
- Provide ongoing measurement and verification of energy projects
- Identify opportunities for improved operation and maintenance practices
South Bay COG worked closely with Los Angeles County Internal Services Department (LA County ISD) to make EEMIS happen

- Leveraged Los Angeles County/Energy Hippo (previously McKinstry) EEMIS – regional cost-sharing
- La County ISD administering EEMIS since 2002
- Dedicated LA County ISD EEMIS team – administration and technical support
#1. Where are we currently?

- Example of report to compare energy use and cost to prior fiscal year

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#1. Where are we currently?

- Example of benchmarking report among city’s facilities

```
Location: City Hall                  Report date: 9/10/2014 11:15:49 AM
Region: CA                          Start period: 2013-1 (Jul-12/13)
Benchmark type: $/day               End period: 2013-12 (Jun-12/13)
```

![Single-benchmark Ranking](chart.png)
With SBCCOG as Implementer:

- Enrolled approximately 2,400 electric accounts into EEMIS with collaborative teamwork from SBCCOG, SBCCOG member cities, Los Angeles County, and SCE
- Installed real-time energy monitoring at city hall for two cities with over 200 kW demand
- Identified high Energy Use Intensity (EUI) buildings to prepare facility benchmark reports
#1. Where are we currently?

Continued,

- Provided facility performance reports to help cities establish an energy re-investment fund
- Expedited Energy Action Plan preparation for two cities
- Contributed to cities of Lawndale and Manhattan Beach achieving Platinum under SCE’s Energy Leader Partnership program through development of facility benchmarking reports
#1. Where are we currently?

Finding Example 1:

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<td>#1 – Community Center</td>
<td>Energy use and cost increase from prior fiscal year</td>
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<td>#2 – Zero energy use</td>
<td>City paid for no energy use electric accounts – 21 accounts</td>
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<td>#3 – Low energy use</td>
<td>City paid for low energy use (&lt;50 kWh) electric accounts – 20 accounts</td>
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<td>#4 – Tariff evaluation</td>
<td>Possible tariff change for traffic control and streetlights on TOU-GS-1 tariff</td>
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<td>#5 – Third-party agency</td>
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### #1. Where are we currently?

#### Findings Example 2:

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<td>Energy use and cost increase from prior fiscal year</td>
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<td>#2 – Zero energy use</td>
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<td>#3 – Low energy use</td>
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<td>#4 – Tariff evaluation</td>
<td>Possible tariff change for traffic control on TOU-GS-1 tariff</td>
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<td>#5 – Private Business</td>
<td>City paying bill with meter located on building occupied by small business</td>
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<td><strong>Total:</strong></td>
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Challenges Encountered:

- Managed file transfer protocol delays
- Customer authorization ("CISR" forms)
- Data quality
  - Potential remedies – Green Button in 2016, establish quality management plan
  - Learning process
  - Common issue in enterprise energy information systems, examples can be found in other organizations
#2. Where do we want to go?

- Make energy management proactive instead of reactive
- Get top-management buy-in
- Institutionalize EEMIS
- Establish an Energy Fund in budget at each city
#3. How do we get there?

CA flow-down policies in 2015

- SB 350 – doubling of energy efficiency
- Executive Order B-30-15

At City Level – “Lead By Example”

- City Councils make a priority
- Top-management buy-in
- Autonomy given to front-line city staff to be “energy managers” and have ownership of making a difference in municipal operations
Questions?

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(310) 371-7222