

**Commercial and Industrial (C&I) Energy Efficiency Requirements Working Group
Meeting #5 – Friday, January 23, 2014
Summary Notes**

Working Group Participants

- Russ Chitwood, Nexant
- Nicole Hammer, WSP Group
- Dan Powers, Boulder Tomorrow
- Pete Salmon (sp?), Iconergy
- Pam Milmoie, Boulder County Public Health
- Sarah Linke, Boulder County Public Health
- Bill Hayes, Boulder County Public Health
- Brad McQueen, EAB Rep
- Andy Vissers , Covidian
- Adam Knoff, Unico Properties
- Traci Delreal, TEBO Properties
- Lauren Smith, Southwest Energy Efficiency Project
- Doug Hargrave, Iconergy (on phone)
- Angelique Espinoza, Boulder Chamber

City of Boulder staff and consultant

- Elizabeth Vasatka, LEAD
- Kendra Tupper, LEAD
- Debra Kalish, City Attorney's office
- Sharon Procopio, consultant

Executive Summary

The group spent the first part of the meeting discussing a summary of the viewpoints of working group members, representing the viewpoints of the building owners and property managers and the service providers and city and county staff. These viewpoints are noted in summary notes from Meeting #4.

Post Working Group Timeline:

- Presentation of staff recommendations for the Ordinance (including the feedback from this working group) is scheduled for a City Council study session on May 12, 2015 or at a City Council business meeting as an agenda item on May 5, 2015.
- The city is planning to conduct a webinar in March to raise awareness among other building owners who would be impacted by the future ordinance.

Agenda

- Key Definitions
- Background on efficiency requirements
- Dive into the details of the City of Boulder potential efficiency requirements
- What types of energy services (possibly provided by a new municipal electric utility) would be most valuable to Boulder businesses and building owners?

Energy Efficiency Requirements (see PowerPoint):

Overview of Key Definitions:

Staff asked for advice and recommendations on:

How to define a building?

- Include a list of exclusions to make clear what isn't covered
- Any enclosed structure or just commercial use?
- Most working group members seemed to agree with keeping a broad building definition
- Need more clarity around defining buildings and sizes when it comes to strip mall, zero lot lines; such as the Pearl street tenant.
- Address discrepancies abound when looking at tenants in Pearl Street Mall buildings and strip malls.
 - A single building on Pearl St has multiple addresses for different businesses
 - But Coviden's campus has one address but multiple buildings
- It was recommended to look at the Public Utility Commission's definition of building, as well as how the City defines it elsewhere, and create some similarities.

How to define square footage?

- Thoughts on rentable sq. ft. vs. gross sq. ft. There was collective agreement that gross is good since ENERGY STAR Portfolio Manager uses it.

How should manufacturing or buildings with manufacturing in them be defined?

- There are a lot of high intensity spaces that are not doing assembling, allow for process load dominated spaces that don't fit current presented definition.
- Possibly use NAISC codes

Background on current energy efficiency (EE) requirements in other ordinances, city evaluations and reports

- It was asked if the city has reviewed the cost to implement any efficiency measures proposed?
- It was noted that the city should differentiate public costs and private cost, rebate programs might influence – project on current policy, don't try to speculate on what rebates might be in effect in the future
- Commercial EnergySmart has assisted with over 100 businesses doing lighting retrofits saving with over 900 tons CO2 saved last year, so the 200 tons value estimated seems too low for reduction in CO2 from the evaluation studies
- Aggregated data is available from EnergySmart for all the retrofits that have been implemented by Boulder businesses.

City of Boulder Options for Energy Efficiency Requirements

Prescriptive vs. Performance Energy Efficiency Requirements discussion:

Questions posed:

- Staff asked the question on whether there should be requirements for the service providers who conduct the audits and/ re-commissioning?
- What are the specific requirements that would save a significant amount of energy and have attractive financial returns?

Questions and comments from the members:

- What are other cities are doing? (see PowerPoint)
- What is the adequate price or cost for energy assessments?
- What would the city subsidize?
- What does an ASHRAE Level II audit consist of?
- Does a licensed engineer have to perform a Level II audit? No.
- Is the city set on recommending an EE requirement to council? If yes, is there a timeline of when those would take effect?
 - Staff responded, yes EE options will be brought to council. Rating and reporting is the first phase with energy efficiency requirements being adopted after.
- Staff reminded everyone there will be exemptions for building owners having to implement the energy efficiency requirements for high performance buildings (i.e. Energy Star certified)..
- This rating and report, plus energy efficiency requirement is aimed at helping the bottom quartile of buildings to get up to the median of performance.
- It's rare to see market actions for EE, as people tend to ignore energy costs without regulation to correct
- Will this effort be proposed to council as mandatory or voluntary?
 - Staff emphasized that council has wanted a requirement with efficiency for awhile, so that mandatory options are what will be presented.

Staff asked if it's reasonable to require measures such as an energy assessment every 10 years and require implementation of everything of a certain specified ROI or cash flow neutral. Should the audit be an ASHRAE Level II?

Members' input included:

- LEED EAc2.2 requires no cost low cost measures (18 months), OK to require an Audit PROVIDED those EE requirements are paired with programs to help assist businesses
- Ban "return on investment" as a term used in this process, what matters is cash flow, how can this be made cash flow neutral or better
- Take minimum ENERGY STAR score off the table because Boulder's building stock is too variable

- Colorado Energy Office (CEO) guideline table for energy evaluation costs. But that guideline is for the MUSH (municipal, university, schools, hospitals) market and the range given is \$0.11-\$0.25 per sf for a Level II audit. Now, all service providers bid at \$0.25/sf even though that is unreasonably expensive for a typical office building.
- It was mentioned that Level II audits are a fraction of the cost of a Level II audit so keep that in mind. Level II is adequate for getting basic info, Level III is cost and time prohibitive
- Model other cities and keep it simple to a basic audit, don't get into the weeds and bite it off too much.
- A requirement around whole building lighting power density could be a huge cost, plus think about the waste for replacing and disposing of existing product. T-12 lighting technology makes sense to replace.
- Business people want to have what's simple, keep it simple and flexible.
- Does the city want to collect five years of data before any required upgrades would come online?
 - Staff responded, no that five years would only pertain to performance requirements, efficiency such as periodic assessments could be implemented soon.
- Tread carefully as business owners are already waiting to see about municipalization and they aren't very trusting of what could happen if they give their data to the city and then the city can set their rates. Not rational but there is mistrust so keep that in mind. It was proposed to wait on EE until municipalization is required. Aim for something that will be successful and not a political nightmare to pass or manage. It makes the most sense to offer specific ideas that can contribute to options that are simple, politically viable, and technically sound.
- Does council want quick wins or long gain to get data to know what to recommend later?
- Think about the simple vs complex option vs hybrid and then reevaluate when it's clear where municipalization is going to go.
- Staff agreed and thinks audits are the quick win, along with requiring other measures identified in Level II audits that would be cash flow positive in 3 years or less. Lighting will most certainly be identified in the audit, so prescriptive requirements seem redundant.

What energy services are most useful?

- Lighting, Building automation systems.
- Rebates to help with new construction and major renovations to help deal with new building code requirements. Although we can't give rebates for meeting code, the city could provide design assistance – that would be welcome if it can help drive down cost to meet code or helping with energy modeling.
- Anything related to distributed generation (solar, co-generation, etc) is also helpful, longer term REC model is better for long term cash forecasting.
- Performance contracting with a future utility or third party (Utility could own micro turbines)
- The ability to apply for custom rebates with a third party to help with changing technology, custom rebate based on audit if reviewed by an engineer for example

- Virtual aggregation for buildings with multiple tenants (that's a muni issue), rate structures are not flexible currently with Xcel so better rate structures are needed to help people do projects
- Industrial customers take advantage of a lot of the current industrial incentives.
- Meeting the 30% above energy code requirement in place by the city of Boulder is going to be a big challenge, to manage costs of meeting code. To meet the expense of meeting the current energy code, means that they have to put off efficiency improvements in other buildings (chiller project delayed for a remodeling work) due to cost and budgets.
- It was asked to clarify if process loads are exempt from new code? Yes.
- Renewable energy rebates would be helpful
- For "community solar", building owners can't take more than 40% of output per PUC which is challenging
- It was explained that for private, older buildings, the owner did investment grade audits and they aggregated 11 buildings efficiency improvements and still couldn't make some improvements be cost efficiency. Is there a way to aggregate buildings to allow for the next level of energy services (i.e. performance contracting)? If city contracted with an ESCO and aggregated similar buildings, could open up access to smaller buildings or businesses

What are the next steps after the working group process?

- Staff replied that they will be going to council in May. Between now and May staff will be doing outreach to the business organizations; such as, Boulder Economic Council, Downtown Boulder Inc. , Boulder Chamber, Boulder Tomorrow, and Commercial Brokers of Boulder to get the word out to business leaders and building owners to create awareness of the ordinance and share the outcomes of this group and potential ordinance options.
- A Webinar for building owners with buildings greater than 20,000 sq. ft. will be held in March to go over the ordinance and give them a chance to provide feedback.
- More research on costs, emissions savings and evaluation of options in further detail - Boulder County Public Health (BCPH) will help with lighting values and other estimates
- The ordinance will be drafted and brought to council in third quarter 2015