Minutes of the January 12, 2018 SVABO General Meeting at the Martha Riley Library in Roseville, CA.

- Meeting called to order by Greg Anderson at 10:10 AM
- Welcome from Scott Byrnes, Chief Building Official, City of Roseville
- Flag Salute – Led By Gene Paolini
- Self-introductions
- Review of December meeting minutes
  Motion to approve minutes from Nick Henderson, second by Scott Byrnes; motion passes.

**Executive Board Reports:**

**Secretary / Treasurer's Report:** Jim Mangino
- Total liabilities and equities: $106,722.25. This total will be filed for audit.

**Vice-President's Report:** Joe Cuffe
- This year’s meeting schedule will be finalized and posted to the website.
- Next meeting is February 9th in Placer County. Location TBD.
- Any host jurisdiction needing help locating a speaker/presenter for the meeting please reach out for assistance.
- Adding a new meeting location this year in Auburn.

**President’s Report:** Greg Anderson
- Greg brought up that the ICC Region I membership is due. Item was discussed by the general membership and a motion was made by Greg Mahoney to continue with the Region I membership. Motion was seconded by Gene Paolini. Motion passes.
- CALBO ABM in Burlingame March 25th thru the 29th. Please register to attend.
- Letters of support for Jeff Janes for CALBO President 2018-2019 and for Shane Diller for CALBO 2nd Vice President. Motion for support made by Gene Paolini and seconded by Greg Mahoney. Motion Passes.
- Greg read an email from Ken Welch who will no longer be able to attend the regular monthly meetings. Round of applause for Ken’s tireless efforts and many years of commitment to the organization. Stay tuned for something special for Ken to occur later in the year.
- Special thanks to SVABO members and the Board of Directors for their time and commitment and all Committee Chairpersons.

Past-President’s Report: Scott Zangrando; not present

**Code Quiz:** Brett Hale
Thanks Brett for the entertainment
Committee Reports:

Code Development Committee: Jay Hyde; not present

Education Committee: Steve Burger
- Minstutute coming May 7th Through May 10th. Steve went thru the class schedule as lined out at this time. Stay tuned for more information. Also the visit the SVABO website for more information.

Outreach Committee: Gene Paolini
- Gene working on a meeting for February to discuss the direction of the committee. There was a brief discussion on possibly reviving the “Needy Family” Program.

Scholarship Committee: Don Wilden
- Looking forward to chairing this committee. Jack Atkins Scholarship coming this spring.

Permit Technician Committee: Michelle Menszer (not present) - Steve Burger reporting
- Attendance has been low. Please send your permit techs if you can to keep the momentum of the committee going.

PASS Ad-Hoc committee: Gene Paolini
- There’s been a push from Economic Development to head towards using the PASS program.

Installation Dinner Ad-Hoc committee: Andrea Coley
- The new location for the Installation Dinner worked great. The committee did a great job putting the event together. Andrea asked for feedback on the location. Steve Burger said he loved the mashed potatoes.

Agency Reports:

CALBO: Shane Diller
- ABM in March – please check the program for scheduled events
- Discussed possible legislative changes as a result of the Oakland ghost ship fire.
- Ed week next month in Anaheim.

California Energy Commission: Andrea Bailey
- Congratulations to the City of Davis for Above and Beyond in the Energy Code.
- Regulatory advisory released last month and gave report on different energy requirements (see attachments).

ICC: Chris Ochoa
- Chris is helping Susan Dowty with chapter meetings and is new to the SVABO organization. He will be attending the regular meetings. Welcome Chris!
- Encouraged the group to utilize the ICC website for upcoming events such as the ICC Annual Conference in Richmond, Virginia in October.

Old Business: None

New Business:
- Joe Cuffe asked the group about a “Shared Building Department Services” document which came from a study in Kansas City, Missouri. The document basically outlines a method by which building departments in a given region can ‘share’ their services.
• Tom Burnett asked the group about a new Trac pipe (gas) assembly for use underground. Also asked about Vacation/Rental home inspections and approvals and how other jurisdictions handle this if required.
• Greg Mahoney – Received a call from the Town of Truckee concerning Accessory Dwelling Units. Discussion took place about State Law and the ADU requirements.

Announcements:
• Steve Burger – His daughter had a good experience using the new ICC PRONTO service for in home exam taking. She took the Permit Tech exam and passed. Congratulations.
• Gary Eide – There will be an upcoming career day at a high school in the City of Lincoln. He will get with the Outreach Committee for assistance.
• Vernon Brown – Thanking Randy Goodwin and the group for helping with the fire sprinkler symposium. Also provided information on the Tax Reform Act of 2018 and how it affects the cost of fire sprinkler systems. Vernon will send the document to Greg Anderson.
• Brian Selby with Energy Code Ace – Gave an overview of the CEA Assessment Project. Thanks Brian.

50/50 Raffle:
$20 won by Nick Henderson with CSG. Congratulations.

Presentation:
CalCERTS HERS Registry Training for Building Departments. Presented by Russell King.

Meeting adjourned at 1:04 PM.

Respectfully Submitted,

Jim Mangino
SVABO Secretary/Treasurer
SVABO EDUCATION COMMITTEE - MEETING MINUTES
January 10, 2018  8 a.m. – 10 a.m.
Folsom City Hall
2nd Floor Community Development Conference Room
50 Natoma Street, Folsom, CA 95630

- Call to Order –

- Welcome and introductions—Present: Terry Knox, Jim Mangino, Mike Toledo, Steve Burger

- Approve Minutes

- Announcements (Non-agenda Items)

- Chairman’s Statement—Steve’s goal is to get the Minstitute 95% set up as he may be moving before the actual event. Other Committee Members will need to assist.

- 2017 Fall Classes
  - Disaster Assessment-Nancy Springer
  - December 13-1&2 Family Electrical-Mike Stone
    - Books: Approx. $65
    - Stipend to Sacramento IAEI: $250
    - Location: Folsom
    - Class registration fee: $180

Both classes went well

- Minstitute 2018—May 7-10 in Citrus Heights  Five classes each day.
  - Instructors that replied---
    - See the attached Plan

All but about three classes have been established. Still need class descriptions and bios from many of the instructors. They have been notified but have been slow to respond.

- Student registration

  - Registration cut-off date No registrations on-line after a April 23rd.. Walk-ins would still be welcome at the late registration fee rate. Normal fee: $135 for members; $160 for non-members. Late fee: $150 for members $180 for non-members. We should put in one of the later announcements that registrants after April 23rd may not be able to choose their preferred class and we may not have enough handouts.
Registration and confirmation procedure  The registration form on-line would ask for the emails of those being registered. In the event of one person registering multiple people, each email would be needed so those individuals would be notified separately. Yelena/Kristine to verify.

Name badges  Class days would not be needed on the tags

Certificates  Yelena will check into if it would be possible to have a program that would email the certificates to each pre-registered attendee. Walk-ins would need a separate sheet to sign in so they could provide their email.

Handouts

- Hard copies vs. downloads  Continue as is but also see if it is possible to provide a website where registered students could download their handouts and access them during class over the Internet (on an I-pad or tablet) if they did not have their handout or if we ran out.

Classes

- See The Plan

Vendors

- Steve will send out another email to vendors. We will raise the price maybe $10-$20 for booth space so we can use those funds to purchase $25 gift cards (or equal) for giveaways at lunch. One per day.

Supplies

- Office supplies---Do we need to refresh or add to the supplies? Board approved funding to allow us to refresh some of our supplies and purchase one or two additional whiteboards. Mike Toledo will conduct and inventory and refresh the supplies as needed. We also need one or two white boards and paper pads.

Hotels

- Lake Natoma Inn in Folsom --- Verified at $95 per night for May 2018
- Best Western in Roseville --- We will ask Terry to check.

Caterer

- Hannibal’s

Monitors

- How many each day? One per class (5) and one to visit the classrooms during set up. Most monitors can leave after about 8 a.m. if they need to. PLEASE check your calendar to see if you will be available for any or all of those dates!! And let Steve know.

50/50 raffle

- OK to continue. Also, perhaps have sponsors donate a small give-away for the drawing and everyone gets a ticket when signing in? See “Vendor” info above.

Marketing

- Flyer---Dee is starting to work on the flyer. Goal would be to get it on the web by February 1.

AIA, CSI, SEOC, BIA, other Chapters

- Sending out reminders  One reminder each week at first then twice-weekly (Mondays and Thursdays) as the time gets closer.

Facility for Next Year

- Citrus Heights with five classes each day
- Other location(s)?
• Other issues to discuss?

• Spring Classes
  • 2-day Permit Tech Class---Steve Burger  February 5 and 5. Confirmed and advertised
  • Multiple day classes---Mary Dickson  March 25 and 26. Over the Counter Plan Review and Residential Plan Review for Permit Techs. Confirmed and will be advertised February 1, 2018
  • Others?

• Training classes for future Inspectors, Permit Techs and Plan Checkers  On Hold
  • Locations, dates/times, instructors, curriculum, etc.
    • Committee was asked to start seriously thinking how we could do this
    • Steve suggested a program name of “NEXT”. (New Employment Cross Training). Other names are welcome!!

• Other Business --- CALBO Education Weeks 2018
  • February 5-8, 2018 Anaheim
  • Costs: Approx. $195 for members, $250 for non-members
  • CALBO ABM in San Francisco  March 25 – 29, 2018
  • ICC ABM  October 21 – 24 in Richmond, VA

• Items for Next Agenda

• Future Education Committee Dates and Locations
  • Meetings — The next meeting will be February 14, 2018 8 a.m. in the Folsom Community Development Conference Room, 50 Natoma Street, Folsom.
Efficiency Division Updates

Efficiency Division Updates and Resources

- Prior business meeting was December 13. Energy Commission voted to allow the city of Davis to set local energy efficiency standards for new construction that exceeds state requirements. Next business meeting is January 17.

  Business Meetings Agendas and Minutes: www.energy.ca.gov/business_meetings


Energy Standards Training and Events

- Energy Commission upcoming training dates and locations: www.energy.ca.gov/title24/orc/schedule_oe/index.php

- Energy Commission Training Available for ICC CEUs:

<table>
<thead>
<tr>
<th>Topic</th>
<th>Time (hours)</th>
<th>ICC CEUs</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016 Forms &amp; Resources</td>
<td>1</td>
<td>0.1</td>
</tr>
<tr>
<td>Nonresidential HVAC</td>
<td>4</td>
<td>0.4</td>
</tr>
<tr>
<td>Nonresidential Lighting</td>
<td>4</td>
<td>0.4</td>
</tr>
<tr>
<td>Nonresidential Lighting Controls</td>
<td>1</td>
<td>0.1</td>
</tr>
<tr>
<td>Residential HVAC</td>
<td>4</td>
<td>0.4</td>
</tr>
<tr>
<td>Residential Lighting</td>
<td>2</td>
<td>0.2</td>
</tr>
<tr>
<td>Residential Overview</td>
<td>4</td>
<td>0.4</td>
</tr>
<tr>
<td>Residential Water Heating</td>
<td>2</td>
<td>0.2</td>
</tr>
</tbody>
</table>

- Energy Code Ace: www.energycodeace.com/training
- PG&E: www.pge.com/pec
- SMUD: www.smud.org/Workshops
Energy Standards Resources:

- Online Resource Center: [www.energy.ca.gov/title24/orc](http://www.energy.ca.gov/title24/orc)
- Energy Standards Hotline: 800-772-3300 or Title24@energy.ca.gov

To receive regular updates, sign up and respond to the confirmation email:

- Building Standards: [www.energy.ca.gov/title24/orc/](http://www.energy.ca.gov/title24/orc/)
- Blueprint Newsletter: [www.energy.ca.gov/efficiency/blueprint/](http://www.energy.ca.gov/efficiency/blueprint/)
Fenestration Labeling

California’s 2016 Building Energy Efficiency Standards (Energy Standards), Section 110.6 requires manufactured fenestration products to meet labeling criteria for U-factor, Solar Heat Gain Coefficient (SHGC), Visible Transmittance (VT), and Air Leakage. Fenestration includes:

- Windows – including bay, dual-pane garden, and glass block windows.
- Exterior doors with at least 50% glazing – including sliding glass and French doors.
- Skylights – including tubular skylights and atrium roof systems.

Energy Standards Section 10-111 prescribes two options for labeling fenestration products:

1. Product certification and labeling by the National Fenestration Rating Council (NFRC)
2. A label with Energy Commission default values from Section 110.6 of the Energy Standards

Using standardized procedures to calculate U-factor and SHGC ensures that the thermal or energy efficiency performance for each type of fenestration product is accurate, and that data from different manufacturers can be easily compared and independently verified. For buildings to receive Energy Standards compliance credit for performance features such as low-emissivity, manufactured fenestration products must be tested and certified according to the NFRC.

NFRC Certification and Labeling

Section 10-111(a) of the Energy Standards designates the NFRC as the entity responsible for rating and certifying manufactured fenestration products. To verify compliance, products are required to have both a temporary and a permanent label. Temporary (removable) NFRC labels must list the U-factor, SHGC, VT, and Air Leakage values. Permanent (non-removable) NFRC labels must display the NFRC Certified Products Directory number, which can be used to verify product energy performance on the NFRC website. Permanent labels can be attached adhesively to the window frame or etched between glass panes.

Example of NFRC Temporary Label

<table>
<thead>
<tr>
<th>World's Best Window Co.</th>
<th>Series “2000” Casement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vinyl Clad Wood Frame</td>
<td>Double Glazing, Argon Fill, Low E</td>
</tr>
<tr>
<td>XYZ-X-1-00001-00001</td>
<td></td>
</tr>
</tbody>
</table>

**ENERGY PERFORMANCE RATINGS**

- **U-Factor (U.S. / I-P)**: 0.35
- **Solar Heat Gain Coefficient**: 0.32

**ADDITIONAL PERFORMANCE RATINGS**

- **Visible Transmittance**: 0.51
- **Air Leakage (U.S. / I-P)**: ≤ 0.3

Examples of NFRC Permanent Label

- **This product has been rated and certified in accordance with National Fenestration Rating Council procedures**
- **Series: 2013 Double Hung**
- **Type: VSDH**
- **Code: XYZ-T-13**
- **NFRC XYZ-13 13-T**

The NFRC program ensures that participating manufacturers properly label their products, and NFRC can impose fines up to $5,000 per product line plus $100 per product for violations of labeling requirements. For more information about NFRC labeling visit [http://www.nfrc.org](http://www.nfrc.org).
California Energy Commission Default Labeling

The Energy Standards require that any manufactured fenestration products not certified by the NFRC must incorporate an alternative temporary label that lists the Energy Commission default U-factor, SHGC, and VT values from Energy Standards Section 110.6, Table 110.6-A.

Example of California Energy Commission Temporary Default Label

<table>
<thead>
<tr>
<th>2016 California Energy Commission Default Label</th>
</tr>
</thead>
<tbody>
<tr>
<td>XYZ Manufacturing Co.</td>
</tr>
<tr>
<td><strong>Key Features:</strong></td>
</tr>
<tr>
<td>☐ Doors</td>
</tr>
<tr>
<td>☐ Double-Pane</td>
</tr>
<tr>
<td>☐ Skylight</td>
</tr>
<tr>
<td>☐ Glass Block</td>
</tr>
<tr>
<td><strong>Frame Type</strong></td>
</tr>
<tr>
<td>☐ Metal</td>
</tr>
<tr>
<td>☐ Non-Metal</td>
</tr>
<tr>
<td>☐ Metal, Thermal Break</td>
</tr>
<tr>
<td><strong>Product Type:</strong></td>
</tr>
<tr>
<td>☐ Operable</td>
</tr>
<tr>
<td>☐ Fixed</td>
</tr>
<tr>
<td>☐ Greenhouse/Garden Window</td>
</tr>
<tr>
<td><strong>Product Glazing Type:</strong></td>
</tr>
<tr>
<td>☐ Clear</td>
</tr>
<tr>
<td>☐ Tinted</td>
</tr>
<tr>
<td>☐ Single-Pane</td>
</tr>
<tr>
<td>☐ Air space 7/16 in. or greater</td>
</tr>
<tr>
<td>☐ With built-in curb</td>
</tr>
<tr>
<td>☐ Meets Thermal-Break Default Criteria</td>
</tr>
<tr>
<td><strong>California Energy Commission</strong></td>
</tr>
<tr>
<td>Default U-factor = ............................</td>
</tr>
<tr>
<td>Default SHGC =</td>
</tr>
<tr>
<td>Calculated VT =</td>
</tr>
</tbody>
</table>

Product meets the air infiltration requirements of §110.6(a)1, U-factor criteria of §110.6(a)2, SHGC criteria of §110.6(a)3 and VT criteria of §110.6(a)4 of the 2016 Building Energy Efficiency Standards for Residential and Nonresidential Buildings.

Non-Compliant Labels

Manufacturer-generated values (such as “Simulated Performance Alternative” values) do not comply with the labeling requirements and cannot be used to verify fenestration compliance.

Building Department Enforcement

The Energy Standards are enforced by city and county building departments in California. Temporary fenestration labels must not be removed before building department inspection. If temporary NFRC or default labels are not available on site for verification, the building inspector should not allow further fenestration installation until a compliant label is produced.

Building inspectors should confirm that the U-factor, SHGC, and VT values on compliant labels are equal to or better than those on the CF1R compliance document associated with the permit.

For additional questions about the Building Energy Efficiency Standards, contact the Energy Standards Hotline at (800) 772-3300 (within California), (916) 654-5106 (outside California), or via email at title24@energy.ca.gov.
New Fact Sheet

The Energy Commission has developed a Computer Rooms & Data Centers fact sheet. This fact sheet summarizes the requirements in Section 140.9(a).

New 2016 NRCC-LTO-E and NRCC-LTS-E

The new NRCC-LTO-E and NRCC-LTS-E are available. The NRCC-LTO-01-E through NRCC-LTO-04-E and NRCC-LTS-01-E were incorporated into two compliance documents (forms).

The new forms can be used for any nonresidential outdoor or sign lighting projects complying with the Energy Code. These forms are project specific and expand based on the project scope.

Some of the new features include:

» One signature block
» Table C - Compliance Results gives a quick check of the inputs on the first page and will indicate if the project “COMPLIES”
» User selections limit drop-down menus and table options to guide users toward compliant designs
» Hyperlinks to the Energy Code

Appliance Efficiency Regulations for State Regulated Lamps

Effective January 1, 2018, general service LED lamps and small-diameter directional lamps will be regulated by the Title 20 Appliance Efficiency Regulations (Appliance Standards). State regulated LED lamps with screw base or GU-24 base, including LED retrofit kits designed for recessed can housings, must meet the requirements of the Appliance Standards to be sold or offered for sale in California.

What does this mean with regards to the Energy Code?

Only general service LED lamps and small-diameter directional lamps that are listed in the appliance database may be installed, per the requirements in Section 110.1. These lamps may also need to meet the 2016 Reference Joint Appendix JA8 (JA8) requirements per Sections 110.9(e) and 150.0(k)1A.

What is the difference between the JA8 and state regulated lamp requirements?

For more information on the differences between the JA8 and state regulated lamp requirements, please review the article “Title 24’s JA8 and Title 20's State Regulated Lamp Requirements” in Blueprint, Issue 117.

IAPMO-R&T Approved

The California Energy Commission (Energy Commission) has approved the International Association of Plumbing and Mechanical Officials, Research and Testing (IAPMO-R&T) to certify and rate solar water-heating systems and collectors.

IAPMO-RT maintains a list of products they have certified on their website.

Section 150.0(n)3 of the 2016 Building Energy Efficiency Standards (Energy Code) requires solar water-heating systems and collectors to be certified and rated.
Separation of Electrical Circuits

The requirements for separation of electrical circuits (disaggregation of electrical circuits) have been simplified in the 2016 Energy Code. The 2013 Energy Code prescribed specific methods of separating electrical loads. The 2016 Energy Code allows any approach that provides the ability to measure the separate loads of the building.


Section 130.5(b) of the 2013 Energy Code specifically required separate panelboards or subpanels for each load type. This design approach allows for measuring each electrical load at the feeder to the panelboard or subpanel using a current transformer (CT). See Figure 1 for an example of this design approach.

Another method for meeting the requirements is installing a complete metering and measurement system that measures each load type according to the requirements in Section 130.5(b). This method goes beyond the requirements of the Energy Code. Section 130.5(b) requires separation of electrical circuits to provide the capability to monitor individual loads at a later time. It does not require that meters and associated equipment such as CT’s to be installed.

The 2016 Energy Code does not require a specific method or design approach for ensuring separation of electrical loads. Any design approach that provides the ability to measure separate loads according to Section 130.5(b) may be used.

For example, the system can be designed so that one panel contains multiple load types. Each branch circuit serves a single load type. This allows for measurement of separate loads at each branch circuit. See Figure 2 for an example of this design approach.
Why Separate Electrical Circuits?
The purpose of separating electrical circuits is to set up a backbone for monitoring the contributions of separate loads to the overall energy use of the building. By designing the electrical power distribution system with separation of electrical loads in mind, energy monitoring can be readily setup and implemented without significant physical changes to the electrical installations. Monitoring the electrical energy usage of each load type provides valuable energy usage information to better understand how much energy has been used by each building system. Analyzing this energy information can help facilitate energy efficiency measures to improve building energy performance.

Conclusion
The 2016 Energy Code provides more flexibility for designing electrical power distribution systems. Whereas the 2013 Code required specific design approaches, the 2016 Code allows any design approach that provides the capability to separately monitor electrical load types according to Section 130.5(b). Chapter 8 of the 2016 Nonresidential Compliance Manual provides a few examples, which show design approaches that may be used to meet code requirements.

Q&A
Residential Attic Insulation
When installing roof insulation in a residential attic, does the insulation need to be installed on the entire roof, including areas over unconditioned space?
It depends. The insulation should be installed at the roof either above or below the roof deck in one of the following ways:
1. If the attic is an open or undivided space, then the entire roof should be insulated. This includes portions of the roof over an unconditioned space such as a garage. This is illustrated in Figure 3.
2. If the attic has a continuous air barrier separating the attic over unconditioned space from the attic over conditioned space, then only the portions of the roof over conditioned space should be insulated. It is recommended, but not required, that the air barrier is also insulated. This is illustrated in Figure 4.

Figure 3 - House with attic insulation extending over conditioned and unconditioned spaces

Figure 4 - House with attic insulation extending over conditioned space, attic over conditioned and unconditioned space separated by an air barrier
Pipe Insulation

I am installing a space-conditioning system that uses heated refrigerant for space heating. Should the pipes filled with the heated refrigerant be insulated?

Yes. All pipes carrying refrigerant should be insulated. In this case, insulation is necessary to prevent the refrigerant from losing heat. By reducing heat loss, the equipment does not use extra energy reheating the refrigerant.

Changes are proposed to Sections 120.3 and 150.0(j)2B of the 2019 Energy Code to require piping for refrigerant to be insulated regardless of the refrigerant being cooled or heated.

I am installing a new solar water-heating system at my house. Which pipes and components of this system need to be insulated?

All of the following must be insulated:

» All new domestic hot water piping (California Plumbing Code, Section 609.11)

» Existing accessible piping (Section 150.2(b)1Gi)

» Piping from the heating source to the storage tank (Section 150.0(j)2Aiv)

» First five feet of cold water piping at the storage tank (Section 150.0(j)2Ai)

» Unfired storage tanks (Section 150.0(j)1)

Solar water-heating system collector loop piping should be insulated to reduce heat loss. Changes are proposed to Section 150.0(j)2B of the 2019 Energy Code to require this piping to be insulated.

If insulation is installed outside of conditioned space, it must be protected from sunlight, moisture, equipment maintenance, and wind per Section 150.0(j)3.

See Figure 5 for an example of an insulated solar water-heating system.

Figure 5 - Solar water-heating system with pipe insulation and insulation protection. Cutouts in insulation and insulation protection are for demonstration purposes only. Where insulation is required, it must be continuous (exceptions may apply).
For More Information
Home Energy Rating System:
http://www.energy.ca.gov/HERS/

Acceptance Test Technician
Certification Provider Program:
http://www.energy.ca.gov/title24/attcp/

Approved Compliance Software:
http://www.energy.ca.gov/title24/2016standards/2016_computer_prog_list.html

The California Energy Commission
welcomes your feedback on Blueprint.
Please contact Andrea Bailey at:
Title24@energy.ca.gov

EDITOR

Andrea Bailey

SPECIAL THANKS

Alexis Smith
Amie Brousseau
Christopher Meyer
Daniel Wong
Danny Tam
Hamed Amouzgar
Javier Perez
Jose Perez
Kelly Morairty
Kristen Driskell
Payam Bozorgchami
Peter Strait
Simon Lee
Todd Ferris
Overview of the CEA Assessment Project

With California being at the forefront of energy efficiency and having one of the most stringent building energy standards in the country, documenting and verifying compliance with these standards has become increasingly more complicated. Since energy saving goals set by the State largely depend on compliance with the Energy Standards, accurate analysis and documentation is necessary to ensure these goals are met.

The residential new construction market in California predominantly utilizes the performance approach for analyzing and documenting compliance, which requires a special set of skills to accurately model projects using State approved software. Currently, there are no requirements for individuals to obtain special training, or to be certified to prepare compliance documentation. While, a certification program does exist in California (the Certified Energy Analyst (CEA) Program), it hasn’t been widely utilized as a method for ensuring compliance. This poses the question – is compliance documentation prepared by certified individuals more accurate than those prepared by non-certified individuals?

The Pacific Gas and Electric (PG&E) Energy Code Ace team, in cooperation with Selby Energy, Inc and Evergreen Economics, is asking for participation to help conduct an assessment of the Certified Energy Analyst (CEA) certification program to determine if there are statistically significant differences in the ability between CEAs and non-certified energy analysts to accurately analyze and document residential new construction projects for compliance with the 2016 California Building Energy Efficiency Standards (Title 24, Part 6).

The assessment will consist of an energy plan review of residential new construction project plans and associated Title 24, Part 6 energy compliance documents. We will engage building departments throughout Northern California to provide access (on-site at the building department offices) to residential new construction projects to be reviewed by Selby Energy, Inc using the Residential Energy Plan Review checklist developed by Energy Code Ace. Data collected during the project assessment will be scored based on a predetermined scoring criterion and later analyzed to either prove or disprove the hypothesis.

We truly value your time and assistance. To show our appreciation, each building department participating in the CEA Assessment Project will receive a copy of the final statistical analysis/report and up to a one-hour group overview of specific high-value issues found during the reviews, including a live demonstration of the dynamic plan review checklist and answers to your energy code questions from a subject matter expert. Additionally, each participating jurisdiction will receive the average score of documentation prepared by CEAs and non-CEAs for projects reviewed within their department after the final analysis is complete.

With your participation in the CEA Assessment Project, along with other building departments throughout Northern California, we can reach our research goal of reviewing the accuracy of energy code compliance documents for over 150 individual new construction projects. We believe this research has the potential to streamline the energy code review process and increase confidence in the accuracy of Title 24, Part 6 compliance documentation. And, ultimately, more accurate compliance documentation will lead to code-compliant development, helping California meet aggressive energy efficiency and climate change mitigation goals.

To participate or for more information about the CEA Assessment project, please contact Brian Selby at (209) 352-2281, or email brian@selbyenergyinc.com.

About Energy Code Ace
The California Statewide Codes & Standards Program's EnergyCodeAce.com is designed to help building industry professionals and consumers meet the requirements of the state's building energy code, Title 24, Part 6, and the Title 20 appliance standards. The site offers free tools, training and resources developed to "decode" these standards for the wide-range of people who need to understand them, including architects, engineers, building department personnel, lighting designers, builders, energy consultants, HVAC professionals, contractors, and building and homeowners, to name a few. The program is funded by California utility customers under the auspices of the California Public Utilities Commission and implemented by Pacific Gas and Electric Company, San Diego Gas and Electric, Southern California Edison and Southern California Gas in support of the California Energy Commission.