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*Comment Received From: California Energy Alliance  
Submitted On: 12/21/2021  
Docket Number: 21-IEPR-01*

**CEA - Comments on Draft 2021 Integrated Energy Policy Report**

*Additional submitted attachment is included below.*



December 21, 2021

California Energy Commission  
Commissioner Andrew McAllister  
Docket #21-IEPR-01  
1516 Ninth Street, MS-4  
Sacramento, CA 95814-5512

Re: Docket 21-IEPR-01 – CEA Comments on Draft 2021 Integrated Energy Policy Report

Dear Commissioner McAllister and Staff,

Thank you for the opportunity to provide comments on the California Energy Commission (Energy Commission) Draft 2021 Integrated Energy Policy Report (IEPR). The California Energy Alliance (CEA) is a leading advocacy organization for California's energy stakeholders. Founded in 2016, CEA is a nonprofit, non-partisan alliance of business, government, academia, and NGO leaders advocating for energy productivity to achieve economic growth, environmental justice, energy security, affordability, and resilience. Our work focuses on research, advocacy, outreach, and evolution of codes, standards, and policy.

Throughout 2021, CEA and its Members had the opportunity to present at a number of IEPR Workshops and on topics addressed in Volume I: Energy Efficiency and Building, Industrial, and Agricultural Decarbonization. CEA supports the findings of the 2021 IEPR and feel it is an admirable step in the right direction to inform policy recommendations and address actions needed to advance decarbonization goals in California. As noted on page 2 in Volume 1, "...current programs and policies are not projected to achieve energy savings and GHG reductions that are on a path to 2030 targets. More aggressive efficiency and decarbonization is needed from programs and the private market to get on track for 2030 climate goals."<sup>1</sup> It is with this conviction and understanding that CEA encourages the Energy Commission, Legislature, and

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<sup>1</sup> Kenney, Michael, Jacob Wahlgren, Kristina Dulonglo, Tiffany Mateo, Danuta Drozdowicz, and Stephanie Bailey. 2021. Draft 2021 Integrated Energy Policy Report, Volume I: Energy Efficiency and Building, Industrial, and Agricultural Decarbonization. California Energy Commission. Publication Number: CEC-100-2021-001-V1.



supporting state agencies to take stronger positions and accelerated actions on the Recommendations outlined in Chapter 7 of Volume 1.

We applaud the Energy Commission for listening to various stakeholders and pulling together a full range of recommendations to tackle energy efficiency and building decarbonization. While CEA generally agrees with and supports the conclusions of the Draft 2021 IEPR, we would like to underscore and comment on the following areas:

1. Benchmarking and Performance Standards:

- a. Expanding upon California’s Building Energy Benchmarking Program, CEA agrees that “California is in a prime position to implement and enforce a building performance standard using the numerous local, state, and national examples.”<sup>2</sup> This move would allow the standards to consider not just energy usage and also GHG emissions and indoor air quality.
- b. Additionally, CEA sees this as an opportunity to create a proper hand-off between new buildings and existing buildings. As a building performance standard takes shape, the Energy Commission will need to evaluate the metrics required to show compliance for new buildings versus existing buildings. Currently, the metrics being used for compliance are not aligned for new construction (Time-Dependent Valuation) and existing buildings in the benchmarking program (Energy Use Intensity). Developing a linkage between new construction energy standards and existing building performance standards could be achieved through predictive building energy modeling and metering of aggregated load types to create actual measurement and reporting capabilities. Deep and necessary gains in building energy efficiency cannot continue without considering actual building performance. As the performance demands increase for our buildings – such as incorporating more connectivity, IoT, battery storage, on-site generation, frequent changes in space utilization, and other current trends – a better understanding of buildings as integrated systems is critical.

2. Quality Installation of Heating and Air Conditioning Equipment:

- a. As noted on page 2 in Volume 1, “Each replacement of major equipment presents a precious opportunity to achieve long-term savings and make

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<sup>2</sup> Kenney, Michael, Jacob Wahlgren, Kristina Duloglo, Tiffany Mateo, Danuta Drozdowicz, and Stephanie Bailey. 2021. Draft 2021 Integrated Energy Policy Report, Volume I: Energy Efficiency and Building, Industrial, and Agricultural Decarbonization. California Energy Commission. Publication Number: CEC-100-2021-001-V1.

additional improvements to the building<sup>2</sup>.” However, this opportunity will be missed if the equipment is not installed and maintained per code requirements. CEA had the opportunity to present at the September 10<sup>th</sup> workshop on prior recommendations for improving the installation of heating, ventilation, and air conditioning (HVAC) equipment. CEA convened a group of HVAC and energy stakeholders to discuss and agree on a middle ground approach to increase permit compliance and improve the quality of installation for HVAC equipment in a cost-effective manner. Recommendations on pages 39 - 40 of Volume 1 align with the recommendations from CEA stakeholders including:

- i. Uniformed, online permitting process to ease permitting barriers.
  - ii. Require distributors to only sell HVAC equipment to licensed contractors.
  - iii. Development of an HVAC equipment compliance reconciliation system. Details of this recommendation can be found in documents filed by CEA in the Energy Commission Docket: 17-EBP-01.
  - iv. Increase consumer awareness and contractor and building official education.
- b. CEA has called for and recommends reconvening the stakeholders in this process to discuss this multi-pronged approach and research the costs to implement a statewide program. Additionally, the impact on an Authority Having Jurisdiction (AHJ) and building departments needs to be evaluated to determine the necessity for increased training and resources for staff as permit requests increase.
3. Decarbonization and Energy Efficiency Workforce:
- a. CEA wants to thank the Energy Commission for convening industry representatives to discuss the current workforce and training environment, the needs of a future workforce, and how to create a just, equitable, diverse, and well-trained workforce. CEA agrees with this section of the Draft 2021 IEPR as it identifies training needs and points to opportunities through the high-road jobs plan.
    - i. As called out in the Recommendations section of this report, increased funding for workforce training and education focused on just transition and community-focused clean energy jobs is greatly needed as well as increased resources and training for compliance and enforcement staff. Increasing support for quality installation, as called for in the high-road jobs plan, and enforcement of workforce standards will lead to improved energy savings as identified in the

Quality Installation of Heating and Air Conditioning Equipment  
section of the 2021 IEPR.

4. Recommendations:

a. Focus on Existing Buildings

i. CEA agrees that the Energy Commission and other relevant agencies should work to quantify a variety of the benefits of reducing building emissions which are not considered or fully accounted for in current cost effectiveness calculations. Current California energy policy is focused on decarbonization, grid resiliency, energy equity, demand flexibility, and resource security. However, many of the state's cost-effectiveness definitions and methodologies, which are used to justify new requirements and energy programs, are decades old. The outdated and unclear framework for cost-effectiveness does not reflect California's current energy environment, whether in terms of fires and resiliency, grid stability, automated buildings, or Automated Demand Response, and it fails to address many of the challenges in terms of energy needs and resources in neglecting to properly value a whole list of factors and benefits that result from real-world implementation. Lack of harmony across state agencies and across utility regions presents ongoing adoption barriers for new technologies and sound building approaches. When costs and benefits - other than dollars and cents - are ignored, promising energy-saving technologies capable of significantly contributing to California's energy policy goals are excluded from its programs.

1. CEA's Cost-Effectiveness Metrics Initiative is focused on developing an updated definition of cost-effectiveness, as well as an extensive set of technical and policy elements to transform how California state agencies define costs and benefits, including non-energy benefits, and methodologies for determining the cost-effectiveness of energy measures and programs.

ii. CEA also agrees with the Energy Commission on recommending statutory changes to enable the Energy Commission to leverage the statewide benchmarking program to develop and establish building performance standards. As noted above in comment #1, CEA thinks this can provide an opportunity to link predicted energy performance in new buildings to energy performance in existing

buildings through an outcome-based approach. CEA believes outcome-based metrics are essential because of the ongoing gap between calculated and actual savings/reductions.

b. Compliance and Enforcement

- i. CEA agrees that the Energy Commission “should lead alignment efforts across state and local agencies and use technology to improve and streamline the permitting process and to ensure quality installation of heating, ventilation, and air-conditioning (HVAC) systems.”<sup>3</sup> Many of the recommendations in this section relate to increasing permitting compliance and encouraging education and training for building departments, contractors, and consumers. As described in comment #2 above, CEA feels that additional research and stakeholder convenings are needed to develop and assess implementation costs for this multi-pronged approach. Additionally, local agencies and building departments should receive an increased percentage of funds from state and ratepayer funded programs in order to support compliance and enforcement as permit requests increase. It is important to note that the term “streamlining” is sometimes used to mean reducing or eliminating measures which protect performance, health and safety. CEA supports more efficient permit application processes, fee payment and other administrative functions while also supporting significant enhancements in the effectiveness of building department inspections and other compliance and enforcement mechanisms.

c. Embodied Carbon

- i. CEA commends the Energy Commission on leading this effort to tackle embodied carbon in building materials. We understand this process is just beginning and there is a wide breadth of materials to investigate, although we recommend limiting the scope to the materials identified in the report that make up approximately 70 percent of the embodied carbon associated with initial construction – concrete, steel, glass, insulation, masonry, and wood products. All these materials have high embedded carbon content and seem

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<sup>3</sup> Kenney, Michael, Jacob Wahlgren, Kristina Dulonglo, Tiffany Mateo, Danuta Drozdowicz, and Stephanie Bailey. 2021. Draft 2021 Integrated Energy Policy Report, Volume I: Energy Efficiency and Building, Industrial, and Agricultural Decarbonization. California Energy Commission. Publication Number: CEC-100-2021-001-V1.



to allow for relatively easy estimation/calculation of that content because of the relative simplicity of the supply chain.

- ii. Further, the mechanism (or metric) for reporting embedded carbon content should be defined early in this process with one such candidate being Environmental Product Declarations.

CEA and its Members thank the Energy Commission for the opportunity to submit these comments, and we look forward to working with you, other state agencies, legislature, and industry stakeholders on the necessary actions to implement the recommendations outlined in the Draft 2021 IEPR, Volume 1 report.

Sincerely,

A handwritten signature in black ink that reads "Josh Dean". The signature is fluid and cursive, with a long horizontal stroke at the end.

Josh Dean  
Executive Director  
California Energy Alliance

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