

**DOCKETED**

<b>Docket Number:</b>	19-IEPR-06
<b>Project Title:</b>	Energy Efficiency and Building Decarbonization
<b>TN #:</b>	229477
<b>Document Title:</b>	American Institute of Architects California Comments Comments to the Joint Staff Proposal for Implementation of SB1477
<b>Description:</b>	N/A
<b>Filer:</b>	System
<b>Organization:</b>	American Institute of Architects California
<b>Submitter Role:</b>	Public
<b>Submission Date:</b>	8/17/2019 6:12:03 PM
<b>Docketed Date:</b>	8/19/2019

*Comment Received From: American Institute of Architects California*  
*Submitted On: 8/17/2019*  
*Docket Number: 19-IEPR-06*

**Comments to the Joint Staff Proposal for Implementation of SB1477**

*Additional submitted attachment is included below.*

## **Workshop on Decarbonizing Buildings**

**July 30<sup>th</sup> 2019**

### **Comments to the Joint Staff Proposal for Implementation of SB 1477**

**Docket #: 19-IEPR-06 Project Title: Energy Efficiency and Building Decarbonization**

**Submitted Electronically**

### **Background of the American Institute of Architects, California**

The 11,000+ design professional members of AIA California are not only stakeholders in California's movement toward carbonization, but we are also key leaders in project delivery. Architects are nearly always the trusted advisors that prepare the earliest sketches, directing project trajectories at their genesis for both new construction and retrofit. Architects design almost all of California's urban mixed use buildings; senior, affordable and multifamily housing; civic, commercial and institutional buildings, production housing, and more. While our involvement in individually owned single family new and renovation projects is by number modest, we are even in that realm thought leaders, innovators, and marketplace trendsetters. Our profession is known for innovation, and our training includes skills to address multidimensional problems in new and creative ways while at the same time balancing budget, program and schedule .

As the voice of the architectural profession in California, the AIA California shares with the CEC and CPUC a commitment to progress on decarbonization, net zero energy, and other attributes of sustainable, regenerative and resilient design in the built environment.

### **General Comments to both Build and Tech programs**

1. In both the Build and Tech program infrastructure, the potential contributions of Design professionals in implementing the high level objectives of 1477 appears to have been overlooked. Our 11,000 members are important influencers of the general public, developers, manufacturers and contractors at all scales and all across the market. The AIA California as an organization is committed to decarbonization, and we are ready to join in the effort of education, marketing, and outreach. We can contribute case study examples that illustrate both emerging and established best practice, with data and summary information facts. We can share talking points that resonate with several dimensions of the market such as developers, property managers, and homeowners; and key points on the path to success that must be considered. The AIACA as an organization is prepared to join efforts in both the Build and Tech programs, and we look forward to invitations for participation and engagement. California architects are motivated, connected, and committed to action, and ready to join in the work in moving the decarbonization agenda forward as key partners, ideation and innovation experts, and trusted advisors across the broad landscape of California.

2. Among our design professional members are national leaders in energy and carbon savings, experts that are widely known for innovative application of current best practices in implementing carbon and energy reduction in the built environment. When the national AIA recognizes buildings that are high performing both in terms of energy and carbon as well as appearance, function, and economy, more than half of the projects selected from around the country are designed by California architects.

We believe we can help in moving the decarbonization agenda forward most efficiently by insuring that technical knowledge is uniformly distributed across the full breadth of our membership and beyond. AIA California is prepared to assist in development of focused training to insure that every California architect - including non AIA members – is prepared to lead their customers toward higher energy and carbon reduction performance. We proposed to act on this by developing simple and clear technical resources that both describe process and programmatic steps as well as implementation details. We propose to supplement this with data based on case studies that can be used to make the business and economic case for decarbonization to our clients - who include developers, owners of existing buildings, and commercial enterprises at all scales, as well as individual homeowners. In sum, AIACA provides an ideal channel to market both Build and Tech innovation and progress.

#### **General Comments to the BUILD Program**

1. We see potential for the AIACA to partner with vendors, in particular in exploring 'out of the box' innovations that might lead more directly to the decarbonization objective. We suggest that a portion of the funding – perhaps on the order of 5% or 10% - could be effectively 'leveraged' by positioning it as a 'match' for comparable private sector investment by vendors and manufacturers.
2. We would support any mechanisms that would provide the necessary program oversight at the smallest possible cost and shortest timelines. Strategies that we believe can be effective include consolidation of operational management; leveraging public investment with private enterprise and private investment; and incorporating streamlining principles in the basic program infrastructure from the beginning instead of trying to 'bolt it on' after the fact. We are prepared to contribute in developing the details of these strategies.
3. We believe that to shift the marketplace involves some degree of 'trial and error' and that multiple efforts undertaken simultaneously can bring to light nuanced cost/benefit conditions and other factors that abstract analysis might miss. Architects will make excellent partners in efforts that embrace a wide variety of implementations - all based on current theory and best practice and supported with detailed metrics. We encourage analysis that teases out the variables that can allow best match for circumstance and performance; coupled with simple and easily managed tools for application for 'best fit' for the large number of factors that are associated with individual projects.

## General Comments to the Tech Program

1. We agree that the challenge of shifting the existing market and existing infrastructure is immense. Given the magnitude of the challenge, we suggest that overall program funding should be larger to accomplish the objectives. We suggest that funding begin at the currently budgeted levels to allow for initial development overhead but then increase in increments on the order of 25% per year through the four year period.
2. We agree that there is a very substantial challenge in meeting a 'cost effective' threshold as a primary driver for the marketplace transformation required. We believe that drivers based on social responsibility and other more indirect motives may prove to be effective supplements, particularly if coupled with financial and non-financial incentives. We believe architects are well equipped to assist in the development of such supplemental drivers toward market shifts. There are many examples in other markets of how Socially Conscious Marketing can have an impact that exceeds what might be expected from just looking at numbers. This approach is being used successfully at all scales from Google and Ford, to Tom Shoes, Taylor Stitch, and Biolite. The financial challenges to market transformation are likely to be too large to overcome solely with direct subsidies for individual installations; and thus we would not like to see the modest resources available be depleted by 'general application' in this regard. We believe that case studies that are packaged for direct public consumption can be valuable in telling the story would be a better use of the limited resources, especially if coupled with multidimensional incentives.

We encourage using resources to implement targeted examples that would may touch various parts of the marketplace – at all income points- and that these examples be 'marketed' directly to the public using a wide range of channels. Such stories would ideally be varied enough to be able to be understood and of interest to any particular stakeholder and perspective. Architects can contribute in a significant way in being a part of the teams preparing the design and implementation strategies to create these compelling examples. The AIACA is prepared to assist in developing the strategies, case study messaging, and market test cases in putting these principles to work for decarbonization.

3. One approach to addressing BIG problems is BIGGER innovation. Velcro is an example of how even simple moves can lead to never imagined paradigms, changing markets and possibilities far more quickly than might otherwise be considered. Cell phones are an example of how even extremely complex and powerful technology, if developed with the end user in mind from the beginning, can appear so simple that the average person can intuitively pick it up and use it with barely a glance at a user manual. We support the 'prize' concept as a way to unlock the potential of 'crowd sourced' innovation. The AIACA has experience with design competitions that function effectively while at the same time respecting the nuances of existing private and public sector interests. We would be pleased to play a role in development of the details of use of a prize strategy.

We suggest that this may require ‘two tracks’ – one that is ‘public domain’ oriented, and another that is driven by traditional capitalism with such details as non-disclosure agreements protecting intellectual property. We would be eager to participate in a new version of a ‘Skunkworks’ effort that would look at the vast existing infrastructure in production, distribution and equipment, and find innovations in repurposing these very large investments. We would welcome opportunities to explore how existing infrastructure, down to the scale of individually owned heating and water heating equipment might be supplemented, altered or modified to contribute to the broad objective. The urgency of climate action suggests we cannot wait for the ‘ideal solution’ but must find ways to move on all fronts. Architects can assist with this challenge; it is the kind of ‘non linear’ problem like those we deal with routinely in building design.

Repurposing existing conditions and investments is part of the work of architects. It is manifested each time we find ways to repurpose historic properties and obsolete abandoned industrial sites to vibrant new urban mixed uses .

4. We see the potential of rate reform as not only providing a motive force in incentivizing carbonization, but also as a tool in addressing equity and fairness. We believe citizens from all income levels should in some fashion be able to play a role in shifting California toward a more sustainable future, even though not all citizens have the resources to use private investment in making personal and direct moves in that direction. Creative paths of contribution should ideally be developed that allow motivation and attitude shifts holistically in the entire marketplace. We would welcome participation in explorations in this realm.

#### **Responses to a subset of the ‘scripted questions’ follow**

1. Is staff’s proposed approach for using gas corporation revenue from the direct allocation of GHG allowances for funding the BUILD program and TECH program reasonable?
2. Does staff’s proposal appropriately and adequately prescribe how to prioritize among different authorized uses of the directly allocated GHG emission allowance revenue described in Question 1?
3. Are the annual budgets proposed for the BUILD and TECH program reasonable? Why or why not?  
**We believe the Build program funding has promise to realize the intended benefit; but we believe the Tech program requires additional resources. See more specific suggestions in comments above.**
4. Is the proposed budget allocation of 40 percent of the budget for the BUILD program and 60 percent for the TECH program appropriate? Why or why not?  
**If the funding is not supplemented, we believe the split is reasonable. We also believe the challenge proposed to be addressed by the Tech program is far more substantial, and that additional resources are merited. We would like to see a focus on a ‘Skunkworks’ themed wide open innovation program could provide some potential means of repurposing some of the existing infrastructure. Additional suggestions in this regard are above.**
5. Is it appropriate for the CPUC to select the CEC as the administrator of the BUILD program? Why or why not?  
**We believe there is great potential in leveraging investment, and in that light would suggest the administrator of the program would ideally be a not for profit entity that has a more direct connection with the private sector.**
6. Are the proposed elements of the BUILD program reasonable and sufficiently comprehensive? If not, what elements should be removed, changed, or added? Specific questions to consider:

- a. Given that production builders (e.g., builders who build houses, townhouses, condos, and rental properties on land owned by a building firm) construct the majority of new homes in California, should BUILD incentives be offered separately for each new home or collectively for each new subdivision?

**The AIACA suggests that the impact of incentives should be considered by a separate analysis, with the goal of increasing impact with limited funds. Elements to consider would be potential for leveraging public investment with private investment; capitalizing on 'social marketing' as part of an incentive program, and similar nuances that may come to light via stakeholder brainstorming.**

- b. Should BUILD incentives be offered on a first-come, first-served basis across the state, or should BUILD incentives be limited to the regions of the state where the largest GHG emission reduction potentials exist? Or should it be based on some other standard? Please explain your rationale.

**The AIACA believes incentives should be based on the greatest possible impact looked at over some established timeframe. A program based on 'first come first served' would in our opinion be the least effective means of operating the program**

- c. Should each developer or builder have a limit on the total share of incentive dollars received per year, or overall?

**The AIACA believes incentives should be based on the greatest possible impact looked at over some established timeframe.**

- d. What is the appropriate incentive level for the BUILD program? Should the level of BUILD incentives be equivalent to or greater than the current social cost of carbon (e.g. \$48/Tonne CO<sub>2</sub>e)?

**The AIACA believes incentives should be based on the greatest possible impact looked at over some established timeframe.**

- e. Should BUILD incentives target the qualifying residential equipment and/or systems that have the highest costs?

**The AIACA believes incentives should be based on the greatest possible impact looked at over some established timeframe.**

- f. For the low-income component of BUILD, should funding levels be prioritized for the technical assistance work or for the incentive budget? Why or why not?

**The AIACA believe incentives should be directed to create the largest possible impact; which we believe would be prioritize technical work, and then case study examples and marketing**

- g. Is the funding for the low-income component of BUILD at 30 percent of total budget appropriate? Why or why not?

**The AIACA believes incentives should be based on the greatest possible impact looked at over some established timeframe. Without additional data, a 'set percentage' would appear arbitrary, and potentially contrary to the overall program objective in addressing climate change.**

7. Which elements of the BUILD program should be established by the Commission in a decision, and which should the BUILD program administrator have the flexibility to modify in implementation, with oversight by Commission staff?

- a. The AIACA would prefer to see the maximum possible flexibility in the program, which based on available information would appear to favor a large role for the program administrator.

8. Comment on whether the Staff Proposal's analysis and recommendations for the BUILD program's technology eligibility criteria, process for evaluating new technologies, guidelines and evaluation metrics, and criteria for scoring and selecting projects are reasonable.

**The AIACA believes that the program should not necessarily be limited to only 'all electric new construction projects' as that may prove to create a barrier to innovation. It could be a preference or a setaside, leaving for more flexibility. It would be ideal to have the program generate a wide range of success stories that could be used going forward in market shifting efforts that may follow.**

9. Is the proposed mechanism for selecting a program administrator for the TECH program reasonable?

10. Are the proposed elements for the TECH program appropriate? Are there any elements that should be removed, changed, or added prior to initiating the solicitation process? Specific questions to consider:

- a. The staff proposal describes a four-pronged effort which includes an upstream strategy, a mid-stream strategy, a grants program, and a prize program. Is this four-pronged approach appropriate? Why or why not?

**The AIACA believes that the program should put a greater emphasis on innovative potential reuse and repurposing of existing infrastructure at all scales: from production and distribution to individually privately owned gas water heaters. We suggest a two pronged path of outreach and support for innovations, one being public domain, and the other being private owned intellectual property. We also would encourage the**

**program to incentivize leveraging public investment with private investment, which could be through such mechanisms as matching funds, 'co sharing' invention development rights and benefits, etc.**

11. Comment on whether the Staff Proposal's analysis and recommendations for the TECH program's technology eligibility criteria, process for evaluating new technologies, guidelines and evaluation metrics, and criteria for scoring and selecting projects are reasonable.

**The AIACA believes that the program should emphasis Greenhouse Gas reduction potential looked at over a pre-determined time frame, and also that maximum flexibility should be kept so that innovations that are truly 'out of the box' can be considered. We would support a 'wide open' brainstorming input stage; followed by a narrowing of candidate projects based on the criteria outlined.**

12. Is the proposed process for selecting an evaluator for the BUILD and TECH programs appropriate? Why or why not?
13. Other Questions: ☐ The staff proposal includes a list of GHG metrics and sub-metrics to measure the success of the BUILD and TECH programs. Are these metrics appropriate? Why or why not? Are there any additional or different metrics that should be considered? Why or why not?

Respectfully submitted

Michael F. Malinowski FAIA

AIA California Public Affairs Liason