

DOCKETED	
Docket Number:	21-IEPR-01
Project Title:	General Scope
TN #:	241050
Document Title:	AO Smith Comments - Draft 2021 IEPR Volume I Energy Efficiency and Building, Industrial, and Agricultural Decarbonization
Description:	N/A
Filer:	System
Organization:	A.O. Smith
Submitter Role:	Public
Submission Date:	12/21/2021 3:44:01 PM
Docketed Date:	12/21/2021

Comment Received From: Joshua C. Greene
Submitted On: 12/21/2021
Docket Number: 21-IEPR-01

AO Smith Comments - Draft 2021 IEPR Volume I Energy Efficiency and Building, Industrial, and Agricultural Decarbonization

Additional submitted attachment is included below.



December 21, 2021

California Energy Commission
Dockets Office, MS-4
1516 Ninth Street
Sacramento, California 95814

RE: Comments to CEC Draft 2021 Integrated Energy Policy Report Volume I: Energy Efficiency and Building, Industrial, and Agricultural Decarbonization

A. O. Smith appreciates the opportunity to submit comments to the California Energy Commission (CEC / Commission) Draft 2021 Integrated Energy Policy Report Volume I: Energy Efficiency and Building, Industrial, and Agricultural Decarbonization. The Draft 2021 IEPR Report Volume 1 lays out a comprehensive overview of the issues and challenges to decarbonize new and existing buildings and provides recommendations to further its efforts to meet the state's climate goals.

As a leading manufacturer of heat pump water heaters (HPWHs), our comments to the Draft 2021 IEPR Report Volume 1 will focus on HPWHs, which will play a key role in building decarbonization.

About A. O. Smith

A. O. Smith is a global leader applying innovative technology and energy efficient solutions to products manufactured and marketed worldwide. A. O. Smith Corporation, with global headquarters in Milwaukee, Wisconsin, applies technology and energy-efficient solutions to products manufactured and marketed worldwide. Listed on the New York Stock Exchange (NYSE), the company is one of the world's leading manufacturers of residential and commercial water heating equipment and boilers, as well as a manufacturer of water treatment and air purification products. Along with its wholly owned subsidiaries, A. O. Smith is the largest manufacturer and

seller of residential and commercial water heating equipment, high efficiency residential and commercial boilers, and pool heaters in North America.

Comments to the Draft 2021 IEPR Report Volume 1

The Draft 2021 IEPR Report Volume 1 identifies many of the challenges to reducing GHGs for new and existing buildings. While retrofitting an existing building offers the greatest GHG reductions, the report recognizes several “barriers” that must be overcome for upgrading an existing building to utilize HPWHs, including:

- The all-in costs of retrofitting an existing residential building may add up to tens of thousands of dollars for a single property, and perhaps even more for multi-family properties, which may make the switch to HPWHs cost-prohibitive.
- The complicated permitting requirements and inspection process which may deter property owners from making the upgrades, considering the 24-hour emergency replacement of most water heating equipment.
- Pressure on global supply chains will continue to present challenges, which may have cost impacts to consumers.
- The availability and cost surrounding the use of low-GWP refrigerants in HPWHs.
- A limited pool of contractors and installers of HPWHs will need to be addressed for market transformation goals.
- The lack of customer knowledge and awareness of HPWHs.

Manufacturing capacity is another issue that should also be taken into consideration as the CEC continues to develop its policy and strategy for building decarbonization. The CEC assumes a turnover rate of 7 percent in water heaters in the existing single-family homes and multi-family units, which equates to 861,000 water heaters being replaced annually.¹ To capture even 10 percent of this market means installing 86,000 units per year. The number of HPWH units shipped annually across the entire country in 2020 was 104,000.² To convert the entire annual California market of water heaters to HPWHs would require a ten-fold increase of nationwide HPWH manufacturing capacity. These figures are meant to illustrate that meeting California’s demand for HPWHs at even a modest pace would require significant ramp up of manufacturing and have vast impacts on the supply chain. This sort of increase takes time to orchestrate as new manufacturing capacity and production lines must be created. As stated in previous comments, having a clear and reliable policy program and regulatory certainty will be necessary to provide manufacturers with the business certainty needed to make the massive investments required to increase manufacturing capacity at this unprecedented scale.

¹ CEC Draft 2021 Integrated Energy Policy Report Volume I: Energy Efficiency and Building, Industrial, and Agricultural Decarbonization, pg 16.

² ENERGY STAR® Unit Shipment and Market Penetration Report Calendar Year 2020 Summary.

Conclusion

The Draft 2021 IEPR Report Volume 1 recognizes that the transition away from utilizing natural gas for space and water heating, to electricity exclusively, presents significant challenges from physical infrastructure, local electricity distribution grid modernization to funding and consumer awareness and acceptance. A. O. Smith urges the CEC, and other state and local agencies, to take a pragmatic, clear and reliable approach as it builds upon the state's decarbonization strategy to reach carbon neutrality by 2045. In order to increase energy efficiency in existing residential and commercial buildings, we believe that the state focuses on:

- Having consistent programs and incentives to provide the value proposition to property owners and businesses;
- Streamlining processes for installations across the state;
- Increasing consumer knowledge and awareness of energy efficient technologies;
- Providing manufacturers with the business certainty needed to make the necessary investments required to increase manufacturing capacity; and
- Continuing agency coordination to align federal, state and local policies and rules to help achieve a smooth transition to reaching carbon neutrality.

A. O. Smith supports the CEC's efforts to increase energy efficient buildings within California's built environment and appreciates the opportunity to provide comments on these important policy matters. We stand ready to work with the CEC to offer technical expertise and assist the Commission in achieving its climate policy goals. We look forward to continuing the dialogue with the CEC on these important topics.

Respectfully submitted,



Joshua C. Greene, Esq.
Corporate Vice President – Government and Industry Affairs
A. O. Smith Corporation
jcgreene@aosmith.com