DOCKETED	
Docket Number:	19-IEPR-06
Project Title:	Energy Efficiency and Building Decarbonization
TN #:	227830
Document Title:	NRDC Comments on the Joint Agency Workshop on Building Decarbonization held April 8, 2019
Description:	N/A
Filer:	System
Organization:	NRDC/Merrian Borgeson
Submitter Role:	Public
Submission Date:	4/22/2019 3:35:20 PM
Docketed Date:	4/22/2019

Comment Received From: Merrian Borgeson
Submitted On: 4/22/2019
Docket Number: 19-IEPR-06

NRDC Comments on the Joint Agency Workshop on Building Decarbonization held April 8, 2019

Additional submitted attachment is included below.

Comments of the Natural Resources Defense Council (NRDC)
on the Joint Agency Workshop on Building Decarbonization held April 8, 2019
Docket #: 19-IEPR-06
Project Title: Energy Efficiency and Building Decarbonization
Submitted April 18, 2019

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The Natural Resources Defense Council (NRDC) appreciates the opportunity to comment on the Joint Agency Workshop on Building Decarbonization held April 8, 2019 in Los Angeles. NRDC is a non-profit membership organization with more than 95,000 California members who have an interest in receiving affordable energy services while reducing the environmental impact of California's energy consumption.

NRDC appreciated the opportunity to speak at the workshop, and would like to offer a few more comments in response to some of the content included in workshop presentations and comments:

1) **Serving low-income Californians should be prioritized when considering policies and incentives for building decarbonization.**

Several speakers and public commenters emphasized the need to direct support toward low income households and disadvantaged communities. NRDC agrees and encourages the CPUC and CEC to find ways to direct a large portion of the 1477 funds – for both TECH and BUILD – to support building decarbonization for those who are least able to pay the upfront costs. This can be done by ensuring that low income housing developers have the technical assistance they need to participate in BUILD and requiring that the TECH program administrator focuses on serving these populations.

While prioritizing building decarbonization for low income households is not currently widespread in California, we have a successful demonstration of what can be done from the Low-Income Weatherization Program (LIWP) for multifamily buildings. As reported[1] by the

[1] *California's Cap-and-Trade-Funded Low-Income Weatherization Program Multifamily: Impact Report.* California Housing Partnership and the Association for Energy Affordability, March 2019. Url: https://1p08d91kd0c03rlxhmhtydpr-wpengine.netdna-ssl.com/wp-content/uploads/2019/03/LIWP_PolicyBrief_PRINT_HiRes-1.pdf

California Housing Partnership and the Association for Energy Affordability, the LIWP program shows how over 10,000 low-income renter households have already or will soon be upgraded with a combination of efficiency, solar, and fuel switching away from gas appliances. This program has deployed $54.4 million in cap and trade funds to invest in 90 properties in 19 counties in disadvantaged and farmworker communities across the state. On average, these improvements have slashed emissions while **reducing energy bills by 30 percent** on average.

However, this program lacks ongoing funding and there is a waitlist of 1,000 multifamily buildings that house about 18,000 residents. Learning from this example and designing the TECH program to help fund the fuel switching portion of these upgrades (perhaps paired with energy efficiency and SOMAH funding) could be a fast and effective way to continue the momentum of this program and begin to truly transform the low-income housing market.

2) **The CPUC or CEC should create a SB 1477 Stakeholder Taskforce.**

This Taskforce should include industry and community stakeholders who are committed to the success of the programs and can provide ongoing guidance to keep the TECH and BUILD programs on track. The New Solar Homes Partnership (NSHP) program had a similar taskforce that was able to provide timely guidance on how to design a program that would work for key participants and be successful in transforming the market. This taskforce was instrumental in the success of the program.

3) **The morning presentation from the Southern California Gas Company (SoCalGas) contained false or misleading statements on the potential for renewable gas to provide a cost-effective alternative to electrification.**

SoCalGas repeatedly made claims about the costs of renewable gas versus electrification that are blatantly misleading. The SoCalGas/Navigant study cited in SoCalGas' presentation is based on systematically biased assumptions designed to support SoCalGas' business interests, not Californians' interests in clean and affordable energy. SoCalGas's claims that replacing 16 percent of the traditional gas supply in its service territory with renewable gas by 2030 could achieve greenhouse gas (GHG) emissions reductions equivalent to converting 100 percent of buildings to electric-only energy, and that the cost of those GHG reductions would be two to three times lower. These claims are based on a Navigant study commissioned by SoCalGas in

2018. The study was thoroughly debunked by the Sierra Club.[2] It systematically uses wildly optimistic assumptions for cost and availability of renewable gas, and worst-case assumptions for the cost, energy efficiency, and emissions reductions from electrification.

For example, the study uses heat pump water heater efficiency levels far lower than any product currently on the market, and extremely inefficient electric resistance boilers and water heaters in commercial buildings instead of heat pump technologies for these uses. It assumes gas rates increase slower than electric rates whereas gas rates have increased **three times faster** than electric rates in California over 2012-2018.[3]

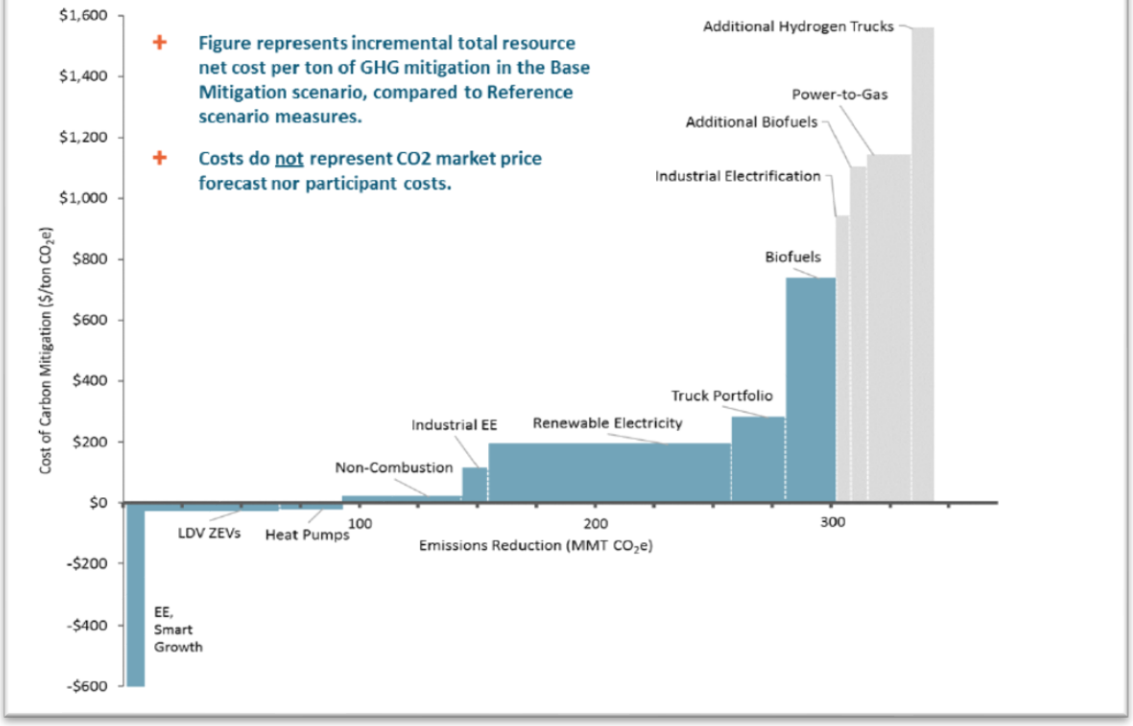
The systematic bias in these assumptions resulted in an artificially low cost of emissions reductions for renewable gas, and an artificially high cost for electric heat. With consistently optimistic assumptions for both options, the cost comparison tells a very different story. A 2018 study by Energy and Environmental Economics (E3) for CEC found that renewable gas (including biofuels and power-to-gas) cost between $700 and $1,200 per metric ton of GHG reduction, when heat pumps would have a slightly **negative** GHG abatement cost. [4] The reality is that electrification with heat pumps is by far the least cost option and building decarbonization utilizing solely renewable gas would burden Californians with much higher costs than electrification.

[2] Sierra Club Comments on SoCalGas and Navigant Report, submitted on 8/24/2018 to docket 18-IEPR-09.

[3] EIA, https://www.eia.gov/dnav/ng/hist/n3010ca3m.htm, https://www.eia.gov/electricity/data/browser/#/topic/7?agg=2,0,1&geo=g&freq=M

[4] "Deep Decarbonization in a High Renewables Future", 6/12/2018, docket 18-IEPR-09.

Figure 26: 2050 Incremental Carbon Abatement Cost Curve (Total Resource Cost per Ton of GHG Reduction Measures, Net of Fuel Savings), in the High Electrification Scenario



DEEP DECARBONIZATION IN A HIGH RENEWABLES FUTURE, CEC ENERGY RESEARCH AND DEVELOPMENT DIVISION FINAL PROJECT REPORT, JUNE 2018

In addition, the SoCalGas/Navigant study replaces 16 percent of its entire conventional gas supply, including gas used in industry and power generation, by renewable gas, and allocates this renewable gas solely to buildings. This would actually represent 46 percent of the conventional gas supply to buildings and would leave no renewable gas available for sectors that are hardest to decarbonize and where renewable gas is most needed: industry, power generation for inter-seasonal balancing, and potentially heavy-duty transportation. Instead, this scarce supply of renewable gas should be allocated to those sectors and end uses that need it the most before any leftover is used in buildings.

NRDC urges the CEC and CPUC to dedicate time, attention, and funding to building decarbonization solutions commensurate with their potential to decarbonize buildings in California. As the 2018 IEPR Update acknowledges, the role of renewable gas in decarbonizing

buildings "is likely to be constrained by limitations on renewable gas availability, cost, and ongoing methane leakage concerns."[5] NRDC agrees with the CEC that renewable gas is unlikely to be a large enough contributor to reducing emissions in buildings to avoid widespread electrification, and there may be other sectors (like industry) where the limited supply of renewable gas would provide more value in reducing California's emissions. While sustainably-produced renewable gas can play an important role in decarbonizing California's economy, it should not distract us from, or delay, the critical work needed to transition the building sector to clean electricity for space and water heating.

[5] 2018 IEPR Update, p.20.