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*Comment Received From: Andy Wunder  
Submitted On: 6/21/2021  
Docket Number: 21-BSTD-01*

**Comments -159 E2 CA Business Leaders in support of ambitious building electrification standards, OpEd frm building indust leader**

*Additional submitted attachment is included below.*



Good for the Economy.  
Good for the Environment.

June 15, 2021

California Energy Commission  
1516 Ninth Street, MS-34  
Sacramento, CA 95814

**Re: Business support for ambitious building electrification standards in 2022 Title 24 Building Code**

Dear Commissioner McAllister and Energy Commission Staff:

As members and supporters of E2 (Environmental Entrepreneurs), we are writing in support of the direction of the California Energy Commission's (CEC) Title 24 proposal and strongly encourage further ambition. As currently drafted, these standards would incentivize home builders to transition to all-electric new construction in California. However, the current proposal does not extend electrification incentives to the heating systems commonly used in many large residential and commercial buildings such as packaged units and central systems. This current gap in incentives is a lost economic opportunity. A code that incentivizes the construction of all-electric buildings across all building classes is a critical step to advancing all-electric building construction. The CEC should strengthen its proposal to ensure our building code adequately confronts the climate crisis while reducing construction and building operating costs in California, as well as catalyzing significant job growth in our state's clean energy economy.

E2 is a national, nonpartisan group of business leaders, investors, and professionals from every sector of the economy who advocate for smart policies that are good for the economy and good for the environment. Our members have founded or funded more than 2,500 companies, created more than 600,000 jobs, and manage more than \$100 billion in venture and private equity capital.

Buildings are the second largest source of greenhouse gas (GHG) emissions in California. Fossil fuels burned for heating and hot water in buildings are a primary source of those climate emissions. The technology to dramatically reduce this pollution already exists and is cost-effective. As business leaders we understand that climate change is a business risk and mitigating carbon emissions from the building stock of the world's fifth largest economy is paramount. Furthermore, California's climate policy leadership has advanced markets and catalyzed climate action globally - 40 years of state leadership via Title 24 code updates is an impressive example of California's ability to drive efficiency and climate action beyond our borders.

Simply put, California must do more to address emissions in the built environment. Strengthening the 2022 code to provide electrification incentives for all building classes will set all new construction on a transition path to run on clean electric energy and ensure policymakers capture one of the most significant opportunities to mitigate climate emissions in California's economy. Title 24 is the tool to make these changes happen and the 2022 code update presents a unique opportunity to ensure California remains a leader in building codes and climate action.

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Addressing climate change also presents an economic opportunity and standards that ensure all new buildings are powered by clean electricity are good for California's economy. All-electric construction costs significantly less to build as there is no need for gas piping and the related safety expenses associated with its installation. An [economic analysis conducted by Synapse Energy Economic](#) showed that building without gas infrastructure reduced the cost of multifamily apartment building construction by roughly \$1,500 per unit; an [analysis by the City of San Francisco](#) found that building all-electric lowers construction costs by just under \$5,700 for the average single-family home. There are also additional economic benefits from reduced construction costs; reduced project costs enable and accelerate additional construction which will help the state mitigate housing shortages and costs, as well as boost employment in the construction industry.

Heat pumps and other electric appliance technology not only make buildings more affordable to build, they ensure buildings are more affordable to live and work in. In fact, a recent Public Utility Commission analysis finds that "a well-managed effort to move customers to all-electric homes and electric vehicles could result in over [\\$100 per month reduction in overall energy bills](#)". In a state mired in unaffordable housing and living costs, accelerated building construction that results in cheaper construction and reduced utility bills provides timely solutions.

Beyond increased construction employment, electrifying all new buildings is an important first step to catalyzing decarbonization retrofits in California's existing buildings and that work will support roughly [100,000 new California jobs in construction, HVAC installation, electrical work, energy efficiency, and load-management services](#). All-electric new construction will build capacity in the market, facilitating scale in advanced HVAC appliance manufacturing and installation, and developing competencies needed for retrofits. In short, all-electric new construction will prime the market for retrofits and provide California a gateway to decarbonizing our existing building stock. Electrifying our state's building stock is an incredible job creation opportunity and Title 24 standards ensuring all-electric new construction is a requisite first step.

According to [E2's Clean Jobs America report](#), California - with almost 500,000 clean energy jobs at the end of 2020 - has realized the job creation benefits of public policy leadership that creates the market structures needed to catalyze and drive investments in the clean energy economy. By advancing a strong decarbonization code, the CEC can build on California's robust clean energy economy and drive employment of Californians across the state to build all-electric and retrofit our existing buildings.

Title 24 presents an important opportunity to advance California climate action and realize economic benefits. As currently proposed, the 2022 Title 24 code updates move in the right direction but fall short of covering all major building types, particularly large commercial and residential buildings. As business leaders who are creating jobs and driving economic growth in California, we thank you for your leadership and urge you to transition all new buildings to clean electric construction in the building code as soon as possible. For additional information, please contact Andy Wunder at [awunder@e2.org](mailto:awunder@e2.org).

Sincerely,  
**159 E2 California Business Members and Supporters**

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# The San Diego Union-Tribune

## Opinion: How an all-electric building energy code can support California's economy and fight climate change

By VINCENT MUDD

MAY 18, 2021 12:21 PM PT

*Mudd is a lifelong entrepreneur, former managing partner with CarrierJohnson + Culture Architects and a licensed general contractor. He lives in 4S Ranch.*

California can build better buildings, and a better future.

In the business world, capitalizing on opportunity and seizing potential is the name of the game. Embracing innovation and shrewdly planning for the future keeps you in the game.

California policymakers can capture the best of California's innovative culture by strategically updating our state's building codes — known as Title 24 — to ensure our state is building for the future. We can temper the housing crunch, create 100,000 new jobs, build on our flourishing clean energy economy and fight the climate crisis through these codes. To keep California's future and economy sustainable, the California Energy Commission must advance an all-electric new building code as soon as possible.

With 20 years' experience as a leader in the building world — including as a managing partner at a major California architecture firm working throughout the state — I am no stranger to California's statewide building codes. Thanks to Title 24 and the code updates the state makes every three years, the time we spend indoors is safer than it was 20 years ago. Shepherded by Title 24 updates, our buildings are more energy-efficient and cost less to operate than “peer” buildings in other states.

But just like in the business world, lawmakers can't rest on their past success — we need to use the upcoming code update to ensure California's buildings meet the challenges of our time. We need new codes to ensure that California buildings run on clean renewable electricity not just for lighting and cooling but for all other needs, including heat and hot water. All electric new buildings are the next step, the smart step.

Over the last two decades, I've seen firsthand how building code updates are good for California. I've worked with clients, including some of California's largest builders, on code updates over the years, and have seen these clients adapt and flourish. In fact, I know that “business as usual”



usually leaves you left behind. Designing all electric new buildings is the next big opportunity, and I'm looking forward to capitalizing on it.

Our leaders should capitalize on this momentum, too. Here's why.

Occupants and owners benefit. Heat pumps make buildings more affordable to build, and more affordable to live and work in. In fact, a recent Public Utility Commission [analysis](#) found that “a well-managed effort to move customers to all-electric homes and electric vehicles could result in over \$100 per month reduction in overall energy bills.”

The economy benefits. All electric buildings are faster to build because they don't require complicated and expensive gas hookups. Faster construction equals more construction, which equals more jobs. And codes that move us towards electrifying new buildings will also grease the market for retrofits paving a path to electrifying

California's existing building stock — an enormous opportunity. In fact, a recent UCLA [analysis](#) showed that retrofitting California's existing building stock to run all electric will support more than 100,000 construction jobs and 4,900 manufacturing jobs annually for 25 years.

The cherry on top. To understand the dangers of living with natural gas in our buildings one only needs to recall the 2010 natural gas explosion that left eight people dead and decimated a neighborhood in San Bruno, a San Francisco suburb. Smart building owners and managers have an appetite for lower business risk and removing combustible gas from the business equation does this. Furthermore, a move towards all electric buildings is a critical strategy in our state's efforts to tackle climate change. We all want a safer planet to live in.

California needs an all-electric building energy code. All Californians are impacted by the growing housing and climate crises and upgrading Title 24 to an all-electric code is a huge opportunity to tackle both of those problems.

And 100,000 new jobs a year ain't bad either. California leaders can push what's possible. By setting codes that put our state on a trajectory for all-electric new building construction, the California Energy Commission can harness the best of California's innovative spirit and help lead the world.