

MAJOR QUESTIONS REMAIN ABOUT SB 32 AND SB 350

Legislation Lacks Details about How California Bureaucrats Intend To Transform the California Economy

✓ LEGISLATION CONTAINS NO DETAILS ON ENERGY CONSERVATION MANDATE, FAILS TO ADDRESS SUBSTANTIVE QUESTIONS OF COST AND EFFECTIVENESS

Study Finds Costs of Residential Energy Efficiency Investments are Double the Benefits

“This is another reason why potential energy efficiency investments need to be rigorously tested in real-world conditions before relying too heavily on them to solve climate change.”

▶ **Costs of Residential Energy Efficiency Investments are Twice their Benefits: Implications for Policy, The E2e Project, June 2015**

NEXT 10 study estimates that energy efficiency policy is “far from financially viable.”

“For residential and commercial buildings, the technology exists to get close, but not all the way to the AB 32 target. However, at this point it is far from financially viable... This will be an especially daunting task for the high percentage of low-income households and renters.”

▶ **California Climate Policy to 2050, Next 10, April 2015**

✓ LEGISLATION CONTAINS NO DETAILS ON FUEL REDUCTION MANDATE, FAILS TO ADDRESS CONSUMER COST INCREASES AND MAJOR NEW INFRASTRUCTURE COSTS

Federal science agencies identify cost and transition challenges.

“No one pathway is adequate to reach the goals. All the successful scenarios combine continued improvement in vehicle fuel economy with at least one other pathway. All vehicles considered in the full NRC report are expected to be several thousand dollars more expensive than today’s conventional vehicles, even by 2050. The near-term costs for battery and fuel cell vehicles will be considerably higher. Driving costs per mile will be lower, especially for natural gas and electricity, but vehicle cost is likely to be a significant issue for consumers for at least a decade. In addition to cost, some of the technology options will require substantial infrastructure changes and possibly consumer adaptation.”

▶ **National Academy of Sciences and U.S. Department of Energy, March 2013**

✓ LEGISLATION CONTAINS NO DETAILS ON RENEWABLE ELECTRICITY MANDATE, GOALS COULD CREATE SYSTEM RELIABILITY ISSUES

“Duck Curve” indicates that an imbalance in electricity generation could be exacerbated by the legislative goals and mandates.

“California ISO’s graph projecting future net loads shows that adding on more renewables will make a problematic duck. If the duck’s belly drops too low, that means renewable sources are producing too much electricity, more than we can use. So it gets wasted, or could damage the grid. And with a sagging duck belly, adding more renewables won’t do any good.

When the duck’s peaks are high - its head and tail - there isn’t enough electricity coming from renewable sources to meet the demand. So it has to come from elsewhere, like traditional power plants or imports from other utilities. Because power plants take a long time to turn on and to shut down, the longer and steeper the duck’s neck and tail, the harder it will be for utilities to provide power when the sun isn’t shining and the wind isn’t blowing.”

▶ **Why Is California Trying To Behead The Duck?, Inside Energy, October 2014**

“The advent of financial and mandated incentives for increased renewable energy has brought with it unexpected grid-related problems as intermittent renewable generation has increased to more measurable levels. California’s mandate of 33 percent of retail electricity from renewable energy by 2020 and Hawaii’s mandate of 40 percent of electricity generated from renewable sources by 2030 along with federal and state financial incentives have pushed the levels of these more expensive renewable sources where they are raising havoc with electric grid operations.”

▶ **Solar Energy’s Duck Curve, Institute for Energy Research, October 2014**