Comments by 350 Bay Area on the July 9 CPUC/CEC/ARB/CAISO symposium on meeting California’s 2030 GHG goals, focused on the transition to renewable energy generation

1. the Pathways Analysis sponsored by CARB, CAISO, CPUC, and CEC and conducted by Energy + Environmental Economics (E3) should include relevant cost savings to accurately reflect the costs of the early deployment strategy compared to the other scenarios.

Specifically, the Pathways Project is designed to “evaluate the feasibility and **cost** (emphasis added) of a range of greenhouse gas reductions scenarios in California “. The cost impact is summarized on slide 18 of a previous presentation to CARB of the draft Pathways results (appended) and appears to show that the early deployment scenario has dramatically higher incremental costs by 2030 than the straight line or delayed deployment options. However, since the early deployment scenario (critically important for rapid reductions in GHG emissions) would result in a more rapid decrease of emissions of greenhouse gases and criteria pollutants than the other scenarios, there would be real and quantifiable health benefits with the early deployment scenario. It is misleading to fail to include those direct cost savings in the analysis, especially when policymakers may rely on figures such as slide 18 to conclude that early deployment is not economically feasible.

The Pathways analysis considers costs from a range of perspectives, not just that of the utilities, such as changes in consumer vehicles and residential heating investments, as well as the impact on household expenditures. Therefore, it seems entirely reasonable that it should also include well accepted estimates for savings from health benefits, which are a direct result of the early deployment intervention. For example, as part of the Clean Power Plan the EPA monetized the air pollution health co- benefits from reductions in criteria pollutants. This analysis was specific to California and would provide a credible source for figures on the benefits of reductions in Particulate Matter- 2.5 ( $360,000-$800,000 per ton in 2011$) and Nitrogen Oxides ( $11,000-$47,000 per ton in 2011$) (reference below) .

1. the CPUC should be held accountable to meet their critical role in reaching California's greenhouse gas emission reduction goals.

A number of symposium presenters expressed concerns about over-generation and curtailment in the future with the increasing proportion of renewable resources on the grid, apparently assuming over-generation and curtailment are inevitable. However, Laura Wisland from the Union of Concerned Scientists said during the stakeholder panel that the UCS model shows that it is feasible to use fast response storage and Demand Response to maintain system flexibility and reliability, decreasing the use of gas generation and avoiding curtailment and overgeneration. The CPUC should develop concrete plans to encourage investor owned utilities to accelerate investments in such approaches to grid reliability, especially given the decreasing cost of storage, the innovative applications of demand response, the expense and GHG profile of gas peaker plants, and the expense and opportunity cost of curtailment.

Ed Randolph of the CPUC discussed the complexity caused by the multiple current CPUC proceedings relevant to California's transition to renewable energy, but did not suggest any practical solutions. The CPUC should propose how they plan to meet the state’s goals with a more integrated process. In addition to a strategic approach to integrated planning, several suggestions from the symposium could be considered, such as adding storage to the renewable generation obtained for RPS procurements; permitting pump storage to qualify as storage  (rather than current requirement for "new technology"); and  increasing the time horizon of the long term procurement proceeding to 20 years.

reference:  US Environmental Protection Agency,  " regulatory impact analysis for the proposed carbon guidelines for existing power plants and emissions standards for modified and reconstructive power plants" June 2014.  Table 4 –9 p. 4 – 27.  Available at <http://www2.epa.gov/sites/production/files/2014> – 06/documents/2014 0602 ria – clean – power – plan. Pdf