

November 1, 2013

**VIA ELECTRONIC POSTING**

Comment List: draft-update-sp-ws

Mr. Mike Tollstrup  
California Air Resources Board  
1001 I Street,  
Sacramento, CA 95814

Subject: Comments on Discussion Draft of the First Update to the AB 32 Scoping Plan

PARC appreciates the opportunity to comment on the updated *AB 32 Scoping Plan* released on October 1, 2013. PARC is well known for its 40 years as a technology leader in Silicon Valley and its foundational contributions to the computer revolution, including invention of the personal computer, graphical user interface, Ethernet, and the laser printer.

We are encouraged that the ARB has specifically called out the need for “development and deployment” of new technology. As you note on page 78, “Achieving the highly efficient, low carbon economy necessary to reach the 2050 target will require aggressive development and deployment of the cleanest technologies.”

Not only must the development and deployment be aggressive; **the technologies must be usable and rapidly scalable.** To meet those requirements, new energy technologies must be based on a deep understanding of end user needs, preferences, and motivations, with the right balance between user inputs and automation. These tenets are integral to PARC’s current portfolio of technology developments spanning affordable and efficient renewable energy sources, safe and practical electric vehicles, and energy management systems that balance the economic benefits of electricity usage with its broader costs and impacts. PARC is also encouraged to see the First Update directly acknowledge the importance of personal behavior and a changing demographic in achieving California’s GHG goals.

We believe that it is critical that the development and implementation of next generation energy systems must be based on a model of customization, so that different communities and individuals can strike the appropriate balance across GHG reduction, economic growth, resource utilization, and environmental justice goals.



PARC's impact in computing resulted from this very combination of user-centered technology development with emphasis on adaptability and user customization. Key to PARC's success in these developments were:

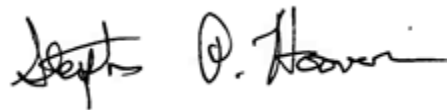
- 1) Application of social sciences to understand how people use and adopt new technologies
- 2) Multi-disciplinary teams of world-class researchers spanning both physical and information sciences
- 3) Strong focus on business models and partnerships to effectively commercialize new technologies

Both the AB 32 Investment Plan and the First Update appropriately highlight the need to fund research, development and deployment of new technologies. In order to achieve the greatest impact with these targeted funds, we believe that the emphasis should be placed on **coalitions that bring together the key parts of the value chain needed to achieve widespread acceptance of new ideas and technology**. The ideal coalitions will be those that cover the full span of capabilities necessary to bring ideas quickly to market, including research, manufacturing and small business accelerators. PARC suggests the following addition to the Chapter VI, Section C on Page 109:

“Funding should be balanced and coordinated among programs that will make progress toward the 2020 goal and investments that will continue California's long-term transformation to a low carbon economy.

PARC applauds California's vision and leadership in addressing the GHG challenge, and we look forward to partnering with CARB to contribute our scientific, social, and business skills to help make clean, affordable, and easy-to-use energy technologies available to everyone.

Respectfully Submitted,

A handwritten signature in black ink, appearing to read "Stephen Hoover". The signature is fluid and cursive, with the first name "Stephen" written in a more compact, stylized manner and the last name "Hoover" written more fully.

Stephen Hoover, CEO  
PARC, a Xerox Company