

Energy Storage Activities at CPUC



Rulemaking 10-12-007 to Implement Assembly Bill 2514

California Public Utilities Commission

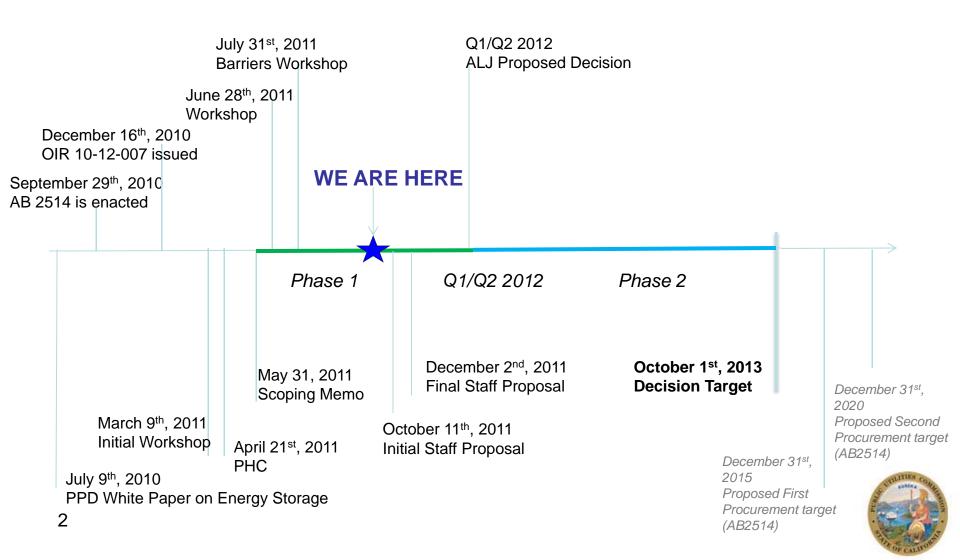
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October 5, 2011 at Berkeley Law Center for Law, Energy & the Environment





Timeline for the Energy Storage Rulemaking





The most recent activity parties submitting comments identifying barriers to energy storage deployment

<u>Preliminary</u> barriers identified by stakeholders:

- 1. Lack of definitive electric system needs
- 2. Lack of cohesive regulatory framework
- 3. Lack of cost-effectiveness evaluation methods
- 4. Evolving markets and market product definitions
- 5. Resource adequacy accounting
- 6. Lack of cost recovery policy (cost-based or market-based)
- 7. Lack of cost transparency
 - a) Wholesale price signals
 - b) Retail price signals
- 8. Lack of commercial operating experience
- 9. Lack of well-defined interconnection process





A few recurring themes emerged

- Several stakeholders proposed <u>using a framework</u> based on "application" and "operational use" of storage. Similar frameworks are also being used by other entities, such as EPRI, in their analysis of the energy storage market.
- There is still an open question regarding whether energy storage has a <u>value in</u> <u>its own right</u>, across all applications and operational uses.
- The variety of possible applications and operational uses of energy storage makes **cost/benefit analysis** particularly challenging.
- There are many different points of view regarding whether <u>procurement</u> <u>targets</u> would be beneficial.
- Different <u>types of energy storage</u> add another layer of complexity, as maturity varies drastically depending on the technology. Additionally, different types of storage enable different applications and operational uses.





Upcoming steps to move forward

- Developing a staff proposal on an energy storage policy framework
- Coordination with other proceedings

Long-term procurement planning Resource adequacy Renewable portfolio standard implementation Demand-side management Interconnection reform

- Coordination with other agencies (CAISO, FERC, CEC, etc)
- Narrowing in on the actionable goals and how to achieve them
- Developing a work plan for how energy storage will be addressed throughout the CPUC organization





Thank you. Please stayed tuned!

