

UPDATE: The bill summary linked below from the California Energy Storage Alliance actually summarizes a former version of the bill. The current bill version, linked below and [here](#), is the best source now. The current version imposes no percentage mandate on utilities. Thanks to Ethan Elkind for pointing that out.

UCLA Law and Berkeley Law recently published an [important policy paper on the future of energy storage in California](#), written by co-blogger [Ethan Elkind](#). Energy storage is crucial to deployment of renewable energy technology, as Ethan's report, and this [recent report](#) from the California Public Utilities Commission, explain.

A bill pending in the California legislature, [AB 2514](#), authored by Nancy Skinner in partnership with our Attorney General Jerry Brown, would help move the state toward wider adoption of energy storage.

A [story by Matthew Wald in yesterday's New York Times](#) discusses this issue in the context of wind energy:

The rapid growth of wind farms, whose output is hard to schedule reliably or even predict, has the nation's electricity providers scrambling to develop energy storage to ensure stability and improve profits.

As the wind installations multiply, companies have found themselves dumping energy late at night, adjusting the blades so they do not catch the wind, because there is no demand for the power. And grid operators, accustomed to meeting demand by adjusting supplies, are now struggling to maintain stability as supplies fluctuate.

On the cutting edge of a potential solution is Hawaii, where state officials want 70 percent of energy needs to be met by renewable sources like the wind, sun or biomass by 2030. A major problem is that it is impossible for generators on the islands to export surpluses to neighboring companies or to import power when the wind towers are becalmed.

On Maui, for example, wind generating capacity over all will soon be equal to one-fourth of the island's peak demand. But peak wind and peak demand times do not coincide, raising questions about how Hawaii can reach its 70 percent goal. For now, the best option seems to be storage batteries.

While Wald's story highlights batteries as a significant piece of the storage puzzle, it also notes correctly that other storage technologies, such as flywheels and compressed air, have the potential to solve the challenges identified in the article.

California's legislature is poised to approve - I hope - a bill that will greatly improve the prospects for energy storage (and thus for widespread adoption of renewable energy) in California.

A California Energy Storage Alliance [fact sheet](#) about the legislation contains a good summary of the bill and discussion of the potential benefits of energy storage. This summary notes that the bill will require

all investor-owned and publicly owned utilities to procure new grid-connected energy storage systems or the services of such systems with a minimum capacity of 2.25% of peak load (averaged over 5 years) by 2014 and 5% of peak load by 2020. Energy storage systems store energy for use at a later time, when electric power is most needed and most expensive, such as on hot summer afternoons. All forms of commercially ready energy storage technologies, including chemical, mechanical and thermal means of storing energy are eligible.

Attorney General Jerry Brown has been the major force behind this bill, to his credit. While utilities may understandably be reticent to support legislation that imposes new requirements on them, it will benefit them in the long run by helping them to achieve the state's renewable portfolio requirements. The legislation also will motivate entrepreneurs to develop the necessary technology and drive capital into this important sector.