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DATE Apr 28 2011

RECD. May 03 2011

#### Panel 3: Utilities Perspective on Energy Storage



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2011 Integrated Energy Policy Report Committee
Workshop on Energy Storage for Renewable Integration
Sacramento, CA
April 28, 2011





## **Application Approach**

- Where does it make sense to put storage?
  - What benefits does putting storage in that particular point on the grid
  - Can be multiple depending on the context
- Can something else also achieve those benefits?
- Can we achieve the benefits from storage in a different more cost-effective manner?





# **Application Example**

- Storage paired with a wind farm under a long-term contract under the RPS
- Storage behind the meter with a small DG asset, such as CHP or solar, avoiding utility retail rates
  - Very different applications and yet similar problems arise – what is specific and what is general?



## **Ownership Model**

- CPUC is trying to be agnostic in terms of who "owns" the storage asset
  - The end-use customer, a third party developer, the resource generator or the utility could own storage, depending on the context
  - Does the ownership model depend on the Application where the storage is being used?
  - Question of financing is a long term contract the only way? What about rate design?



# Leverage ARRA funds for RDD&D

- A variety of storage projects were approved leveraging RDD&D funds
- However, not all storage is long-term
  - Balance between what's available today and what we can learn today





#### Thank you! For Additional Information:

www.cpuc.ca.gov



