Department of Energy – Electricity Advisory Committee Meeting

June 30, 2015

Panel: Microgrids - Current and Future Development Panel

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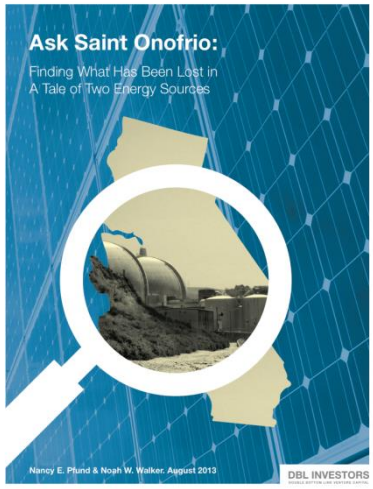
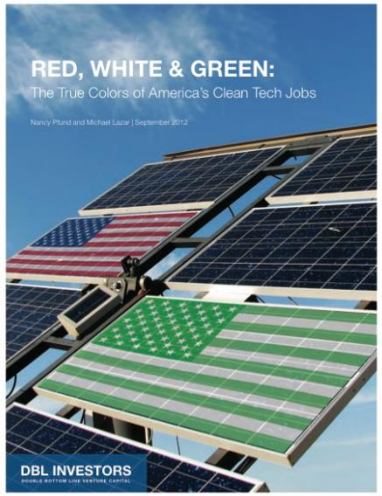
DBL PARTNERS
DOUBLE BOTTOM LINE VENTURE CAPITAL

DBL Partners: Impact venture capital with strong focus on Sustainable Energy investing

- DBL Partners is a pioneer of the "Double Bottom Line" approach to venture capital investing:
  - Financial Return
  - Positive Social Impact, including social, environmental regional economic benefits
- $775M across 4 funds invested in 65 portfolio companies over the past 11 years
  - $400M new fund announced last week – largest impact venture capital fund to date
- "Double Bottom Line" focus led DBL to sustainable energy investing early on – our first sustainable energy investment: PowerLight (2005)
- In addition to sustainable energy DBL also invests in: sustainable products and services, digital media and imaging, health care, and IT.





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Who is financing Microgrid and Energy Storage projects and Why?

- Microgrid and Energy Storage Project Finance providers
  - IPPs/Merchant Power Producers (NRG, NextEra, Duke, Sempra)
  - Real Estate Funds
  - PE Funds
  - Specialty Finance Companies (Google, Generate)
  - Banks (less active: no tax equity)
  - Solar, Battery Companies (SunEdison, SolarCity, Tesla)
- What is driving (and will continue to drive) project finance investment:
  - Lower storage system and grid management costs
  - Track record of developed high-performing systems with meaningful usage for 5+ years
  - Bankability of products and vendors
  - Incentives and utility mandates
  - Continued low interest rate environment in tandem with high project IRRs
  - FOMO (Fear Of Missing Out): many missed out on early days of solar

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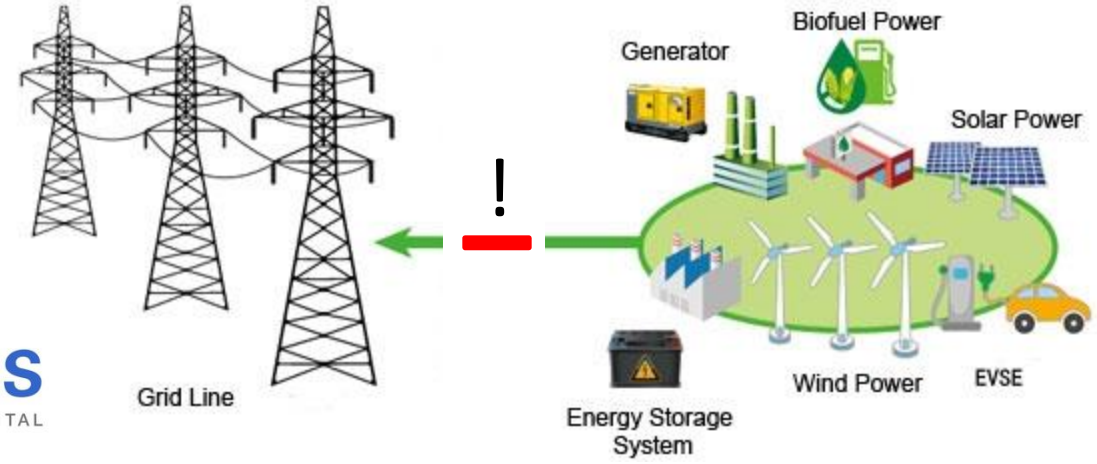
What we like to fund and what we won't fund: Interdependent vs Standalone Microgrids

- Standalone microgrids - that don't vibrantly interact with the grid - and the companies that develop and implement them, are not an interesting venture investment opportunity: not innovative/not able to be protected, not scalable
- The microgrid companies that are getting funded create *Interdependent* microgrids; that is, generation and storage combinations that feed into the grid and incorporate grid power when cost effective and appropriate
- These microgrid companies that are implementing demand response and grid management services are differentiated, proprietary, and can scale
- To promote and grow the use of microgrids, policy makers need to move their policies in the direction where participants will attract commercialization funding, not fund yesterday's models and technology



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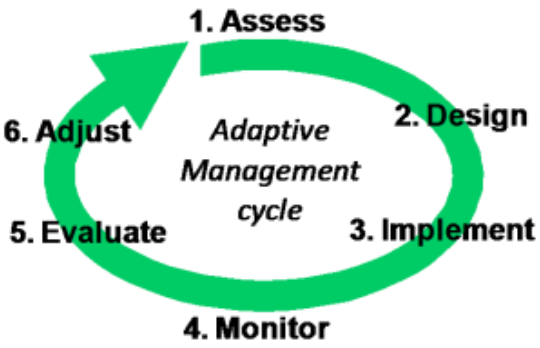
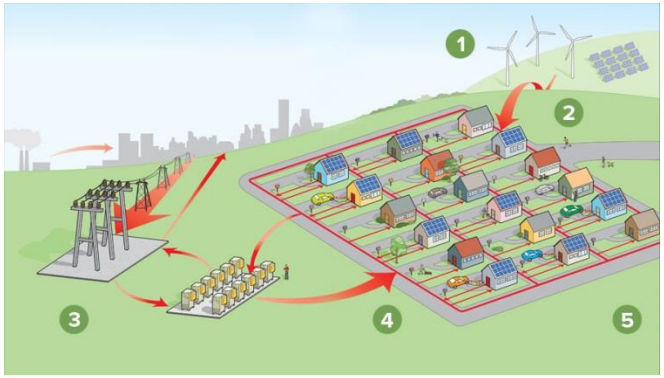
Microgrid and Energy Storage Policy Do's and Don'ts

- Mandates are helpful, but don't make them too prescriptive or utilities and new entrants won't figure out how to use them to scale development
- Don't set up programs that are focused on funding pilots!
  - Smart VC investors will not fund companies that only get pilots
  - If utilities only focus on pilots, microgrids will be regulated to an afterthought to procurement policies that are dominated by traditional solutions like natural gas
  - Pilots usually take at least 3-5 years from authorization to selection to financing to construction and new technologies and solutions will risk dying on the vine while funders flock to faster growing investments
- Instead, create finite incentives that allow for large projects to get started when costs are higher than they will be later and where economies of scale in microgrid construction will create attractive margin dynamics for both supplier and customer: these incentives and mandates include the CPUC's 1300 MW energy storage mandate, CA's SGIP, energy efficiency, auto demand response, etc…
  - Example: the Tesla/AMS Deal
- Companies that use these incentives are getting funded and are tomorrow's big winners

Policy Makers Should Borrow a Page from Natural Resources Management and Implement the Energy Equivalent of "Adaptive Management"

- In natural resources policy, adaptive management allows for tweaking or revising of regulations based on evidence that comes in on what the project is doing to targeted species populations, such as salmon swimming up river to spawn. This prevents whole generations of species from being lost should real-world implementation of policies be different than expected
- We need to build the flexibility of adaptive management into energy and microgrid procurement: this will help reduce a key risk for investors, many of whom are scared away by long time frames, unknown outcomes and ossified policies.
- This approach will foster and grow the key components of the microgrid ecosystem





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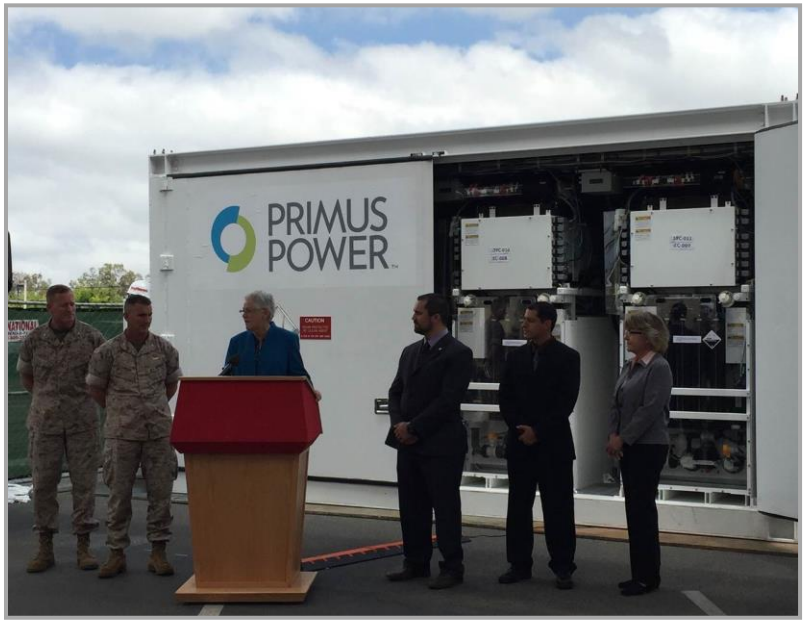
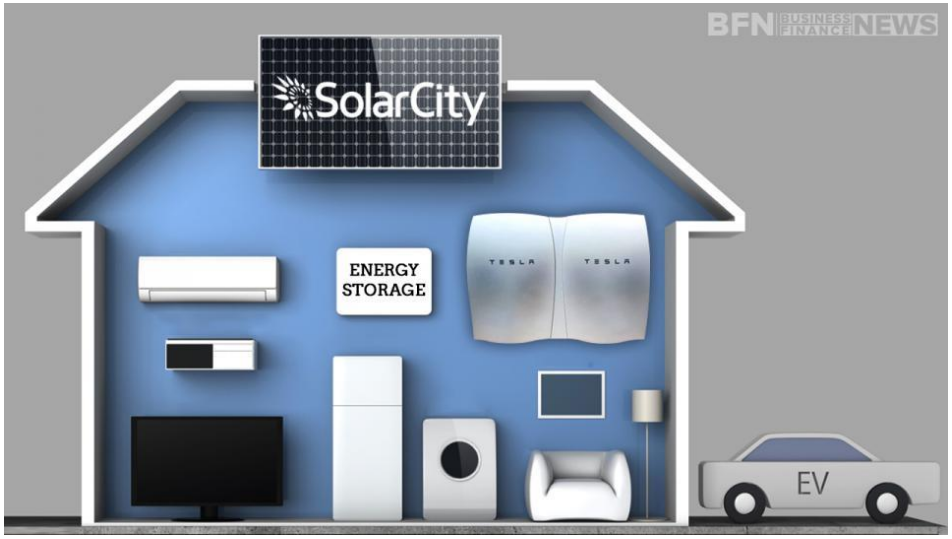
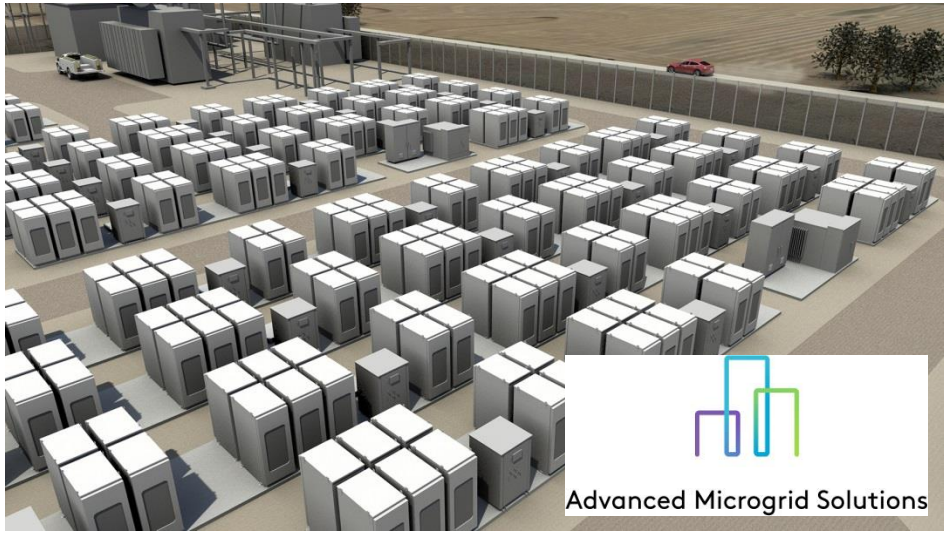
Microgrid deployments are happening and are taking many forms







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