

The EPIC Challenge: Accelerating the Deployment of Advanced Energy Communities Grant Proposal

Summary - Santa Barbara Reliable, Resilient, Renewable ("SBR3")

The World Business Academy seeks funding from the State of California Energy Commission's EPIC Challenge program to plan and install a renewable energy microgrid system for the South Santa Barbara County, which is served by Southern California Edison ("Edison").

The Academy's plan creates a breakthrough collaboration between local governments, Edison, software vendors, and the environmental and business communities in order to achieve the following goals:

- 1. Develop a master plan to optimally deploy local energy resources;
- 2. Resolve issues that cause rolling blackouts in Santa Barbara;
- 3. Create the least-cost approach to achieving local energy stability;
- 4. Generate local electricity from renewable energy sources; and
- 5. Combine existing software analysis tools to enable utilities and local planning departments to work collaboratively for the optimal siting of Distributed Energy Resources (DERs), including Energy Efficiency, Distributed Generation, Storage, Demand Response, e-vehicle charging, etc.

The ultimate goal of SBR³ is to create a microgrid in Santa Barbara that (i) guarantees reliable delivery of electricity to local residents and businesses, (ii) increases system resilience in the face of potential natural and man-made disasters, and (iii) shifts local energy consumption to 100% renewable energy, all while keeping electricity rates stable.

What we need from our local government partners:

- Letter of commitment or support for the project (per grant guidelines);
- Data sharing confidential release of load data to map energy demand and flow throughout the South Coast area;
- Education and feedback regarding existing permitting procedures for siting DERs, including strategic thinking for improving the permitting process, if necessary;
- Collaboration local representatives will participate in one or more strategic microgrid
 design workshops, which will bring decision-makers, staff, and experts together for
 structured discussions geared towards obtaining a strong, unified plan, developing new
 strategies, and maximizing available talent and resources. The workshops may require
 several full days of participation in the second half of 2016.

What our local government partners can expect to gain from the process:

- A complete overview of our local energy system that will serve as a roadmap to a stable, safe, and clean energy future.
- A strategy for powering the Santa Barbara desalination plant without increasing our community's carbon footprint.
- Customer-specific cost-effectiveness of DERs with high levels of certainty, as well as increased granularity in locational planning and DER operations.
- Reimbursement for reasonable staff time and expenses associated with participating in the planning process.
- Enhanced relationships with the utility partners by creating optimal lines of communication and coordination between entities.
- An opportunity to apply as a group for State funds to implement the construction of components of the microgrid.
- An opportunity to be innovators and leaders: the technologies we will use have been independently proven, but not yet combined for optimal efficiency, cost, and performance. In addition to this technological breakthrough, together we will develop a model of collaboration for the global transition to a clean, safe, reliable energy future.

Conclusion:

With the full participation of Edison and our local governments, we can address our current exposure to widespread energy disruptions, including blackouts.

As we secure our energy system, we will develop both technological advancements and a breakthrough collaborative model that demonstrates the economic and health benefits of shifting to a 100% renewable energy system.

The groundwork has been laid and the partners are at the table: we now need the commitment from all stakeholders to go forward. We look forward to working with you towards a secure, prosperous, and safe future for our community.

More details on any of the issues raised in this summary can be supplied, at your convenience.