

October 20, 2013

California Public Utilities Commission
Stephen St. Marie
505 Van Ness Ave, San Francisco, CA 94102

Subject: Preferred Resource Living Pilot Proposal

Dear Stephen,

We are pleased to submit our one page proposal for a cost effective, multi-hundred megawatt scale, managed resource to mitigate the impact of Weather-Sensitive load within the target reliability area. The technology is easily retrofit to existing non-residential buildings and reduces the coincident peak demand and associated energy of air cooled HVAC equipment by approximately 20% on 1 in 2 summer peak days and by 40% on 1 in 10 extreme temperature days. The capacity and energy benefits have been tested and validated by the Emerging Technologies Coordinating Council, Western Cooling Efficiency Center, State Partnership for Energy Efficient Demonstrations, and IOU field trials. The technology has been applied to over 270,000 Tons of HVAC equipment, is commercially available and ready for scale deployment. Continuing along the emerging technology process established by the CPUC, CEC, and IOU's, we are pleased to advise that we recently received a notice of Award Selection from SCE dated October 7th under their - Request for Proposal - Innovative Design for Energy Efficiency Activities (IDEEA 365/RFP01) - Stage 2 - Award Selection. While the final award is subject to contract negotiations and CPUC approval, this is a significant milestone event and dovetails nicely with the timing of the Living Pilot and SCE's 2013 LCR-RFO.

The problem of weather-sensitive HVAC load:

1. "Air conditioning loads cause... an enormous and costly impact on the need for generation, transmission, and distribution resources and a concurrent lowering of utility load factors"¹.
2. "Air conditioning... comprises as much as 70% of net load on hot days. Higher SEER air conditioners use more power on hot days..."²
3. Climate Change: "The State will need to add proportionately more peak capacity (in generation or efficiency offsets) to cover the combined effects of increased cooling demand and decreased generator efficiency on the hottest summer days."³

In 2008, the California Long Term Energy Efficiency Strategic Plan set the stage for the development, commercialization, testing and validation of our proposed solution, namely Goal 4: Develop and accelerate the marketplace penetration of new climate-appropriate HVAC technologies (equipment and controls, including system diagnostics)." While we have persevered many years of development, refinement, and field testing, we find ourselves with the right technology and solution partners at the right time.

¹ California Long Term Energy Efficiency Strategic Plan, September, 2008

² Using Air Conditioning Load Response for Spinning Reserve, Oak Ridge National Labs, ORNL/TM-2008/227

³ ESTIMATING RISK TO CALIFORNIA ENERGY INFRASTRUCTURE FROM PROJECTED CLIMATE CHANGE, LBNL June 2011

Proposal to Mitigate the Impacts of Weather Sensitive Load

Leveraging the strengths of Evaporcool, Peak Efficiency, the Resource Source Solutions Group and licensed California mechanical contractors, we propose to install, own, operate, and maintain electrical demand and energy saving assets that are located behind-the-meter on non-residential buildings. The distributed load management resources are aggregated using web-enabled bi-directional cellular communications and are available for schedule and/or dispatch May 1 through October 31, all weekdays, 6AM through 9PM. The solution includes 100% on-line measurement and validation, data logging, fault detection and diagnostics. This Integrated Demand Side Management Resource addresses Attribute Class A, C, and D.3.

We propose entering into a 20 year agreement based on a “pay for installed capacity performance contract” with on-going payments for availability, persistence, operations, and maintenance. We will work in partnership with the distribution system and resource planners at SCE and the CAISO, to geo-target and prioritize the installation of this summer coincident peak demand and energy saving technology. Since air-cooled HVAC equipment is ubiquitous on non-residential buildings, the resource can be targeted by feeder, substation transformer, or geographic area.

Unique Characteristics:

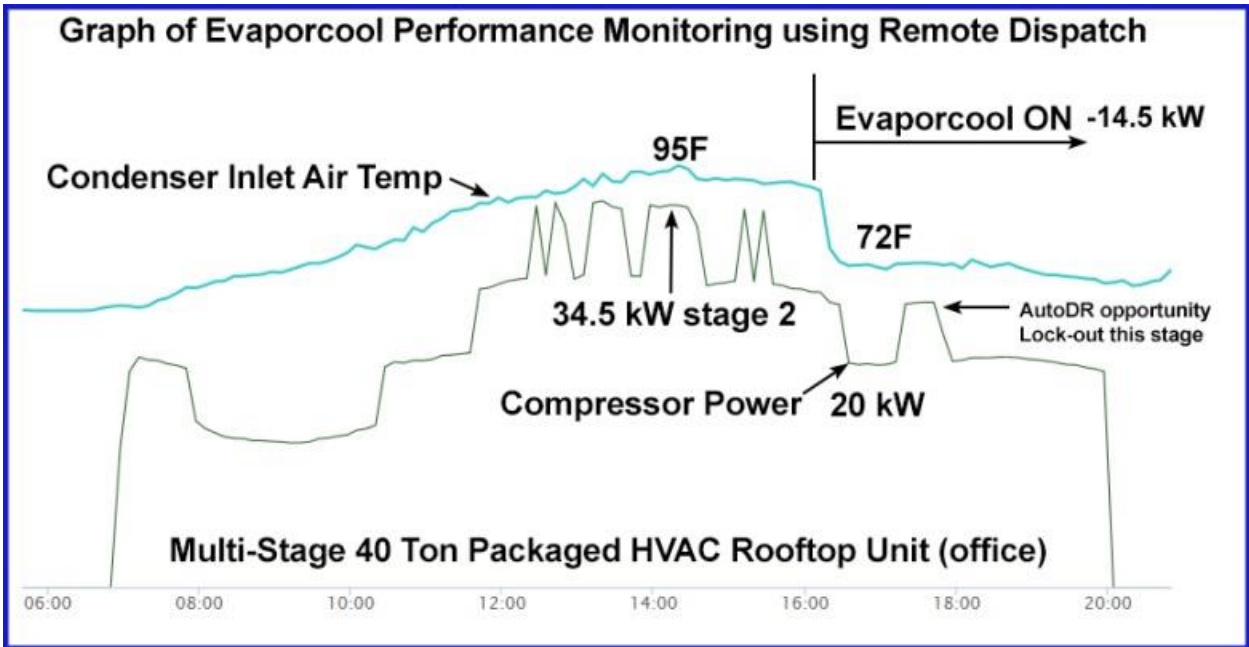
- Highly scalable, highly cost effective
- No overlap with existing energy efficiency and demand response programs
- Reduces load and therefore qualifies for incremental 15% spinning reserve credit
- No costly integration with building controls, behavioral, or thermostat set-point changes
- Perfect for distribution system asset management
 - * long persistent load shape, no bounce back or after-hours charging
- Easily retrofit to existing equipment, perfect for Hot/Dry California environments
- Increases air-cooled HVAC cooling capacity on hot days, extends HVAC equipment asset life
- Saves kWh associated with the condensing unit
- Capacity increases with temperature, 1 MW @ Average Monthly Peak day temp increases by 40% to 1.4 MW on the 1-in-10 Extreme peak day in Climate Zone 9 for example.
- Designed for schedule and or dispatch May – October, weekdays, 6AM – 9PM
 - * Potential future use as a load regulating service (up/down)
- Includes on-line M&V, fault detection, diagnostics, asset performance metrics



Example 150-Ton Air Cooled Chiller



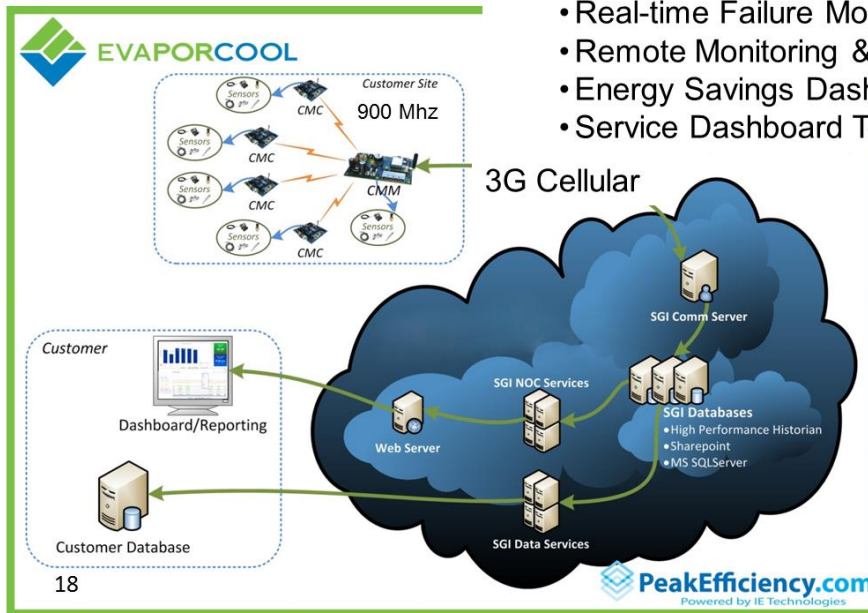
Example Refrigeration Condensing Unit



PeakEfficiency.com
Maintaining Performance & Persistence

EvaporCool SmartSpray Performance

- Cloud-Based Monitoring & Control
- Sensor Data Logging and Analysis
- Real-time Failure Mode Detection
- Remote Monitoring & Alerting
- Energy Savings Dashboard
- Service Dashboard Toolbox



Extensible:
Add client controllers to the wireless network

- HVAC
- Lighting Circuits
- Hot Water
- Compressors

Additional Value:
• AutoDR-ready