Soleil Lofts: The Largest Solar+Storage Virtual Power Plant in the Country
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THE RESILIENT POWER PROJECT

• Increase public/private investment in clean, resilient power systems (solar+storage)
• Protect low-income and vulnerable communities, with a focus on affordable housing and critical public facilities
• Engage city, state and federal policy makers to develop supportive policies and programs
• Visit www.resilient-power.org for more information and resources
SUPPORTING 150+ PROJECTS ACROSS THE COUNTRY

Boulder: Nonprofit transportation center serving elderly and disabled residents

Puerto Rico: Supporting the installation of solar+storage at multiple community medical clinics

Boston: Multiple housing properties representing 1,000+ units of senior and affordable housing

New Mexico: Added resilience for remote wildfire operations command center

DC: First solar+storage resilience center at affordable housing in DC

Puerto Rico: Supporting the installation of solar+storage at multiple community medical clinics
Webinar Speakers

- **Olaf Lohr**, Manager of Utility Relations, sonnen
- **Ani Backa**, US Director of Regulatory Strategy and Utility Initiatives, sonnen
- **Jason Grimes**, Director of Product Development & Special Projects, Auric Energy
- **Seth Mullendore**, Vice President and Project Director, Clean Energy Group (moderator)
Wasatch VPP I - Soleil Lofts: A VPP Case Study

Ani Backa, Olaf Lohr
Utility Team USA
sonnen Global eServices
10 Facts about sonnen …and the utility team

1. Founded in 2008 (Germany)
2. World leader in residential energy storage
3. Most number of installed systems worldwide – 55,000+
4. Engineered and manufactured in the US (Georgia)
5. Depth of product line – eco and ecoLinx
6. First energy storage system to build a companion home automaton platform including controllable breakers for smart configurable backup power (eliminating the need for a PLP), predictive weather analytics and effectively eliminating the key design restriction on PV array size - when working in concert with an AC coupled ESS
7. Virtual Power Plant (VPP) cluster software – utility access via API or VPP
8. Acquired by Shell New Energies in 2019
9. Ani is a Renewable Energy Attorney: former assistant General Counsel and government affairs manager for Xcel Energy. Currently, I lead sonnen’s US regulatory, legislative and utility initiatives at the state and federal level. I live in Minneapolis with my husband, and love the outdoors (inclusive of ice fishing). I can be reached at a.backa@sonnen-batterie.com.
the transition to renewable, reliable and resilient energy requires virtual power plants.

- The challenge is to balance consumption and the increasing, fluctuating generation while weather events grow more unpredictable and catastrophic.
- Aggregation and control of small-scale assets (PV coupled with residential storage, or other local resources) via virtual power plants is indispensable.
- Battery storage and microgrids provide the backbone of a more decentralized, digitalized and decarbonized future.
- Virtual Power Plants know no socio-economic barriers and they are scalable solutions in growing communities.

https://youtu.be/tnzgkZ_P7Yc
Wasatch VPP I – Soleil Lofts:
The first all-electric apartment community in the world that is a utility controlled Virtual Power Plant
The Soleil Project Structure
It all started with the “vision” of Dell Loy Hansen, CEO and Founder of the Wasatch Group

- Strong personal relationships and a unified sense of mission amongst “key players”
  - The Wasatch Group
  - Rocky Mountain Power
  - Auric Energy
  - sonnen Inc
  - Sonepar Codale

- The tremendous and enduring will displayed by the “key players” in the project to make the project work

- Rocky Mountain Power decided to take a major step forward, fully embracing the “idea” of a true residential VPP battery cluster as a dynamic grid asset
Overview of Soleil Lofts

- First all-electric, carbon neutral residential apartment community in the world
- First large scale, utility-controlled residential VPP community in the US
- Largest residential-battery-based Demand Response Program in the US
- First all-electric, energy efficient apartment community in Herriman, Utah
- 5MW of solar + 12.6MWh of sonnen ecoLinx energy storage
- Battery powered Virtual Power Plant (12.6 MWh total), managed by the local utility
- 22 Buildings, including 600 apartments + club house + 150 EV chargers
- Unique partnership model with value for all
- Provides back-up power for residents + demand response control for the local utility
Project Overview

• Location: Herriman Utah (suburb of Salt Lake City)

• https://www.isyourhome.com(properties/soleil-lofts-herriman-ut

• “STEP fund mandate” provides RMP with full control of the Soleil fleet for a specific set and quantity of grid supportive dispatch functions.

• Tenants to receive an average 5% - 10% lower total cost of energy when combining RMP bill with payment to Wasatch’s “Soleil Solar LLC.”

• 630 ecoLinx20 ESS: Total fleet capacity of 5MW, boasting 12.6MWH of stored energy reservoir, accompanied by 5.2MW of PV

• 8%+ overall project IRR for Wasatch Group, over 25-years
Press - over 60 global articles + *Project of the Year Award*

- Utility Dive “Project of the Year” Award 2019
- Forbes - A Cutting Edge Virtual Power Plant in Utah made up of sonnen batteries - controlled by the utility
- Bloomberg - Warren Buffet Utility to use Shells sonnen to help build huge carbon free apartment community
- Greentech Media - sonnen Delivers Long Promised Goal with Transformative VPP Project and Utility Contract
- The Verge - Shells sonnen Seeks to Conquer the US Market
- Utility Dive - Rocky Mountain Power to Operate Largest Residential Battery Demand Response Program in the USA with sonnen ecoLinx
- Fast Company - Groundbreaking 600 Unit Battery Virtual Power Plant
Our Vision

“Our goal is clean and affordable energy for everyone.”

Christoph Ostermann, CEO sonnen GmbH
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“The first of its kind in the world.”

Blake Richetta
CHAIRMAN AND CEO OF SONNEN, INC.
Soleil Lofts

- 600 apartments
- 5.3MW or 12,317 Solaria 430-watt panels ($16.3M of revenue)
- 13MW of batteries ($12.7M of revenue)
- 18MW+ of Auric Energy ($29M of revenue)
- 118 EV chargers throughout community
- Under construction until early 2021
- Ability to run off-grid
- 80% offset of total energy needs
- 73 solar carport structures throughout
“The nation’s biggest all-electric, carbon-free, solar-powered apartment complex.”
— BLOOMBERG

“IT’s the first master-planned apartment community in the world that is a virtual power plant with solar and storage.”
— FORBES
Thank you for attending our webinar

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