



Delivering Energy-as-a-Service: Decentralized, Digitized, Decarbonized

Business Model Innovation in the New Energy Landscape

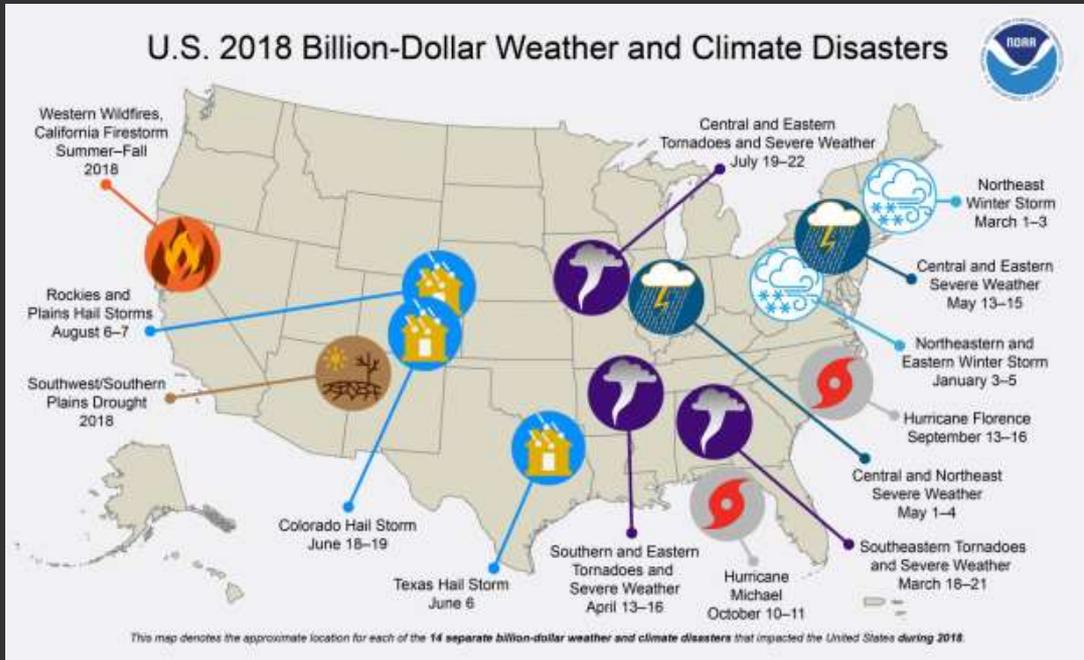
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“Embracing Digital Transformation to deliver economic value to your business”

Life Is On

Schneider
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Resilience is Growing in Importance for States



2019: \$7 billion of Federal Disaster Aid for 6 States to Implement Resilience.

- Some proposed plans still incorporate backup diesel generators as a resilience solution
- Some confusion on the role of utility

Energy as a Service – a Solution for Resilience

Energy as a Service (EaaS) is a long-term arrangement that **transfers the burden** of financing, installing, owning and managing energy from a customer to a third-party entity.

EaaS involves construction of a microgrid, energy efficiency upgrades, procurement of distributed energy resources, and long-term management and optimization of the end-to-end system.

An entity, such as SE's AlphaStruxure, **designs, builds, owns, operates and maintains** an energy system that meet a customer's comprehensive goals – with no capital cost.

What's included in Energy as a Service?

DESIGN – BUILD – OWN – OPERATE – MAINTAIN



Advisory Services

- Enterprise-wide energy advisory services backed by Schneider expertise
- Strategic portfolio guidance delivers resilience & sustainability



On & Off-site Supply

- On-site digitally-optimized energy generation and storage via expertly designed microgrids
- Largest global procurer of off-site energy supply: \$30B+ spend under Schneider management



Efficiency

- C&I retrofits and upgrades to eliminate waste and improve operations
- Digitally-enabled energy visibility and optimization



Load Optimization

- EcoStruxure™ for analytics, edge control and connected products
- Optimized market participation via energy storage and demand response



Strategic Capital & Contract Structuring

- Flexible capital and tailored contract structuring ensure guaranteed outcomes
- Globally-recognized Carlyle asset management team guide innovative financing approaches

... AlphaStruxure delivers the benefits of a comprehensive and cutting-edge EaaS solution with **zero money down.**

WHY Energy as a Service?



EaaS provides guaranteed financial, operational and sustainability impact

GUARANTEED OUTCOMES

Shift burden of ownership and performance to experts who deliver to defined outcomes.

Remove financial, technical, operational, and regulatory **risks**, while retaining long-term, key decision-making rights.

RESILIENT INFRASTRUCTURE

Upgrade critical infrastructure without capital outlay to ensure **business continuity**.

Enhance competitiveness by **digitizing your operation** for the 21st century.

LOWER CARBON FOOTPRINT

Improve ESG scores with energy that is sustainably acquired, locally produced and efficiently consumed.

Optimize a sustainable mix of onsite and offsite energy.

Example of new Business Model: Energy-as-a-Service

Microgrid: Montgomery County, MD

Customer: Public Safety HQ and Correction

Microgrid type: Facility, islandable

Location: Maryland, USA

Capacity: 1.2 MW

Customer pain point

Aging infrastructure with resiliency challenges, budget challenges with no capability to perform upfront investment, aggressive sustainability goals

Solution

Energy as a service business model with Duke Energy, delivering solutions with no upfront cost

“Upgrades to critical facilities improve the county’s resilience, so we can keep residents safe and provide needed services even in the event of prolonged power outages.”

Isiah Leggett, County Executive, Montgomery County

100% green energy produced as part of public safety microgrids

Avoided **\$4M** capital repair investment via EaaS

Relies on Schneider Electric to purchase **100%** clean energy to power all county facilities

1000 vehicles EV fleet



EcoStruxure™ Microgrid Advisor

EcoStruxure™ Microgrid Operation

BESS + Solar inverters + LV/MV + BMS

Some Considerations for States

- ❑ Utility microgrids usually require rate-basing a larger community that may not see the benefits
- ❑ Third party microgrids are competitive since EaaS can be financed outside of that framework
- ❑ EaaS is new and there is no standardized framework
- ❑ For EaaS to grow, states and localities may want to consider how:
 - the EaaS fits in with other contracting vehicles: is EaaS allowed as a procurement vehicle?
 - Is all the funding locked up elsewhere?
 - How does the state help SCALE the projects that attracts the right kind of private partners.
- ❑ Interconnection rules and property rights need to be fleshed out for speedy deployment. RIGHT of WAY is currently a big impediment to quick growth.



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