



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

## Business Model Innovation in the New Energy Landscape

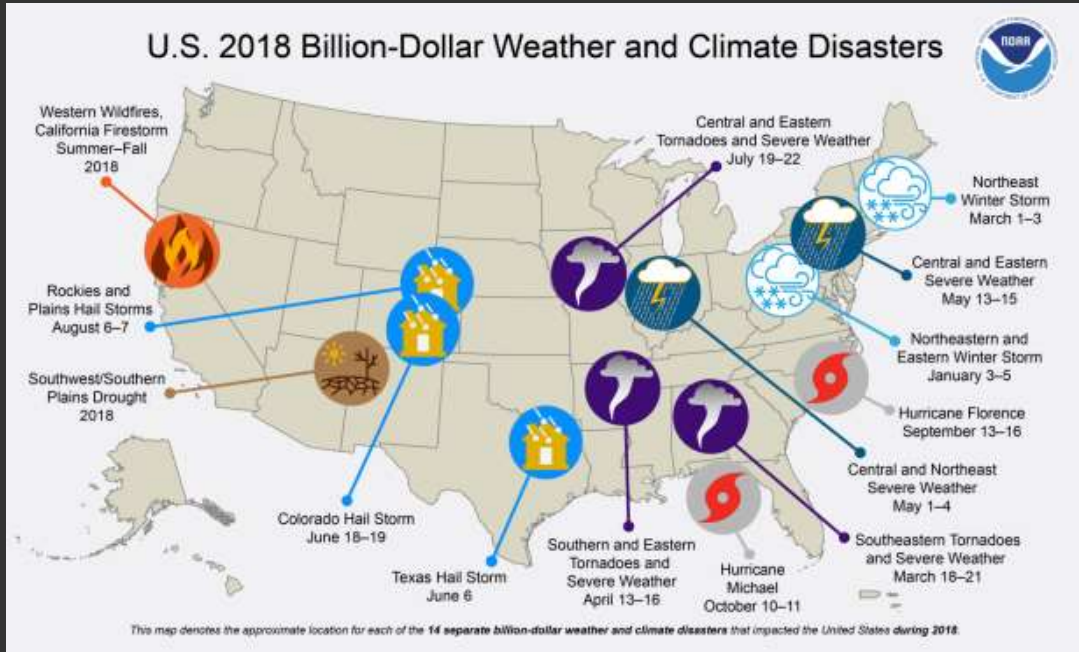
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*“Embracing Digital Transformation to deliver economic value to your business”*

Life Is On

**Schneider**  
Electric

# 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



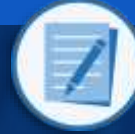
## Efficiency

- 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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