

RESILIENT

New Energy Landscape

Technology + Business Model Transforms Energy

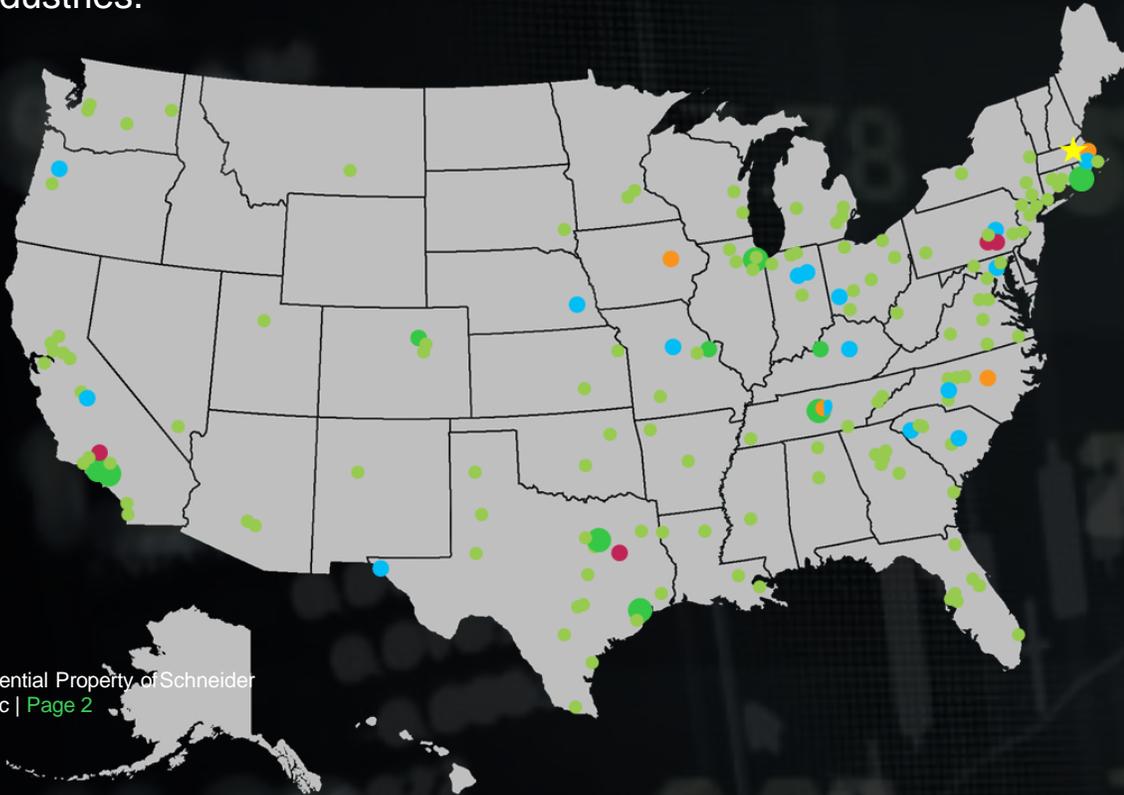
#Microgrid #EcoStruxure

Life Is On

Schneider
Electric

Schneider Electric in the US

Leading the digital transformation of energy management and automation in homes, buildings, data centers, infrastructure, and industries.



Confidential Property of Schneider Electric | Page 2

- Corporate offices
- Distribution centers
- Field / sales offices
- Manufacturing facilities
- R & D centers
- ASCO facilities

Schneider Electric USA Headquarters
800 Federal St, Boston ONE Campus
Andover, MA 01810 [se.com/us](https://www.se.com/us)

\$7.7B in revenues, 2020 ~18,000 employees

Major U.S. sites

Dallas, TX, El Paso, TX Boston, MA;
Nashville, TN; West Kingston, RI; Lake
Forest, CA;

300+ microgrids in the U.S.

Net Zero Carbon by 2025

#1 of Global 500 Most Sustainable
Corporations-Global Knights 2020

Acknowledged in CDP's "Global Climate 500
Performance Leadership Index" and "Dow
Jones Sustainability Index"

Organizations of all sizes are under growing pressure.

Cost

Transmission and distribution costs in the U.S. have **increased 50%** over the past decade.

U.S. Energy Information Administration

Sustainability

Businesses are making their own commitments and state governments are setting mandates for 100% clean electricity, covering nearly **one-third** of the U.S.

McKinsey

Reliability and Resilience

Commercial and industrial companies are forecasted to see **over \$100 billion in annual losses** from power outages through the end of the decade.

American Society of Civil Engineers

CapEx constraints

Reality has been reset. COVID-19 disruption to the global economy has been sweeping and uneven, with many businesses devastated and a few newly advantaged.

Deloitte

Risk management

To emerge stronger from COVID-19, organizations must **identify their most valuable, mission-critical assets** and devote more resources to protecting them.

PwC

The **technology** solution: Microgrid

A local energy system with sources of **generation, storage, and advanced automation and control** usually connected to the central grid but able to function independently.

The **business model** solution: Energy as a Service

- Customers face **accelerating energy challenges** and often **lack the resources** to address these needs
- Energy as a Service delivers the **energy outcomes** customers need with **no capital upfront or operational risks**
- Accomplished through the **design, build, ownership, operation, maintenance and financing** of onsite microgrids



Montgomery County - Energy as a Service Case Study

Situation



Approach



Outcomes



After a series of wide-spread grid outages, Montgomery County set out to find partners to help mitigate the impact of future disasters to its over 1M residents.

The community is committed to decreasing carbon footprint

The electrical infrastructure at the public safety headquarters was old and needed to be replaced before failure.

The County has tight budget controls and access to capital is difficult

- Delivered via innovative, public-private Energy-as-a-Service model eliminating up-front costs
- Infrastructure upgrades (low- and medium-voltage gear)
- Integration of existing generation assets.
- New Solar and Gas CHP generation
- Advanced controls and monitoring
- Advanced cybersecurity

- Improved resiliency of county operations by upgrading existing aging electrical distribution infrastructure
- Provide the ability to island operations for >7 days without grid support
- Mitigated risk of escalating energy price over 15 years.
- Upgrade infrastructure including new electric vehicle charging without capex
- Reduce greenhouse gas and other emissions

March 9, 2021

Take Control of Your Energy

California University

GreenStruxure™

PREPARED FOR

California University

YOUR ENERGY PARTNER

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What We've Learned About You

ESTIMATED ANNUAL ELECTRICITY COST

 **\$1,200,000**

Total Annual Spend	\$1,200,000
Annual Energy Spend	\$780,000
Annual Peak Demand Spend	\$450,000
Cost of Peak as %	38%

All of the information provided in this presentation is an estimate based on public data and will be validated following a detailed site analysis.

California University

ESTIMATED OUTAGES/YEAR



5 Outages

GHG EMISSIONS FROM POWER GENERATION



2,700 Tons

How We Impact Your Business

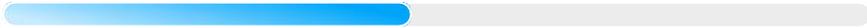
NEW GREENSTRUXURE ENERGY SPEND

RESILIENCE

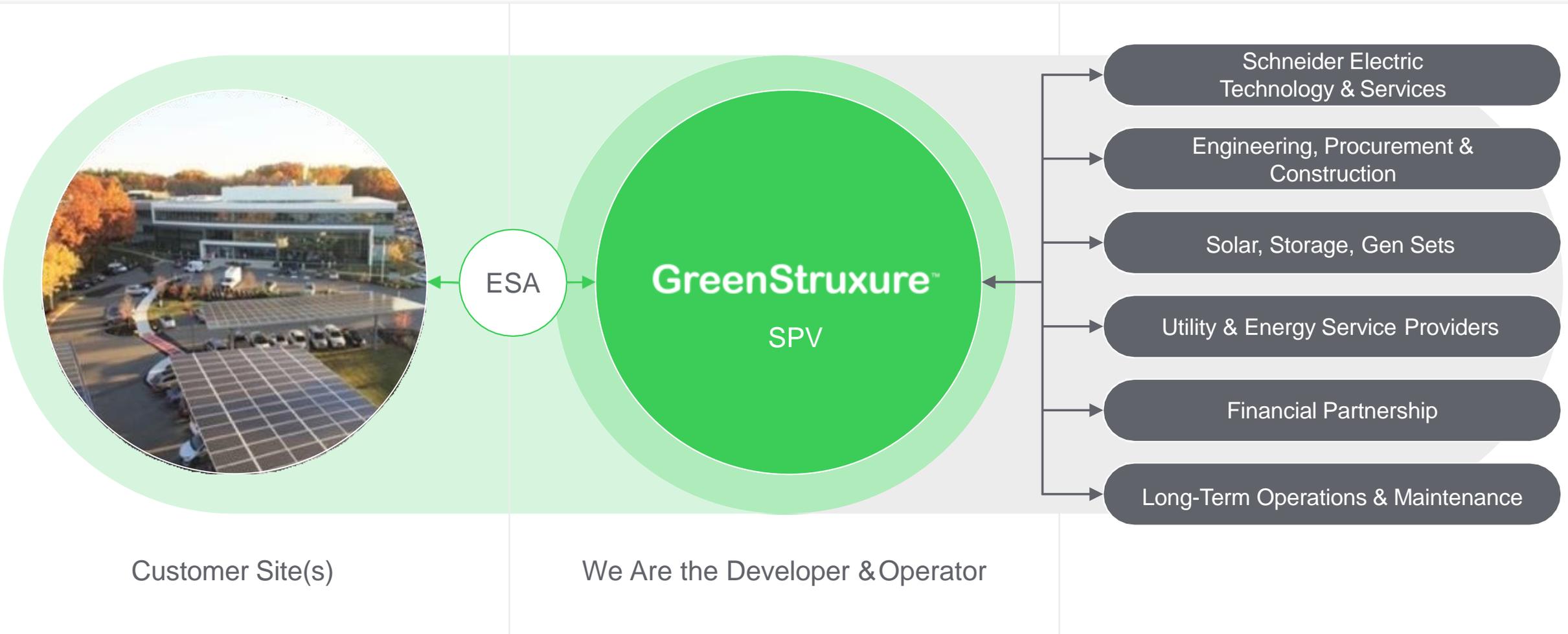


\$120,000 Saving

10% COST SAVINGS YEAR ONE



We Make The Complex Simple



➤ Fleet Electrification Infrastructure Solution for Montgomery County

First-of-its-kind EaaS fleet electrification infrastructure project integrating solar PV, on-site generation, battery energy storage, microgrid controls, and electric bus chargers.

1 Advances the County's sustainability commitments

- 62% carbon reduction from buses eliminating lifetime ~155,000 tons of GHG
- Enables e-bus deployment on longest routes for greatest impact
- Maximizes onsite renewable energy generation with solar and BESS

2 Resilient system to enable full e-bus operations

- 99.999% resilience & reliability of operations and sized to handle peak-demand
- Seamless transition, digitized automation and control philosophy
- On-site generation with storage enables ongoing autonomous operation

3 Turnkey *Energy as a Service* solution

- Comprehensive risk mitigation and transfer throughout project lifecycle
- AlphaStruxure financial approach eliminates upfront cost for the County
- High-touch, collaborative design approach, project execution and service
- Future-proofed digital architecture and monitored 24/7 by AlphaStruxure Network Operating Center



Thank you!

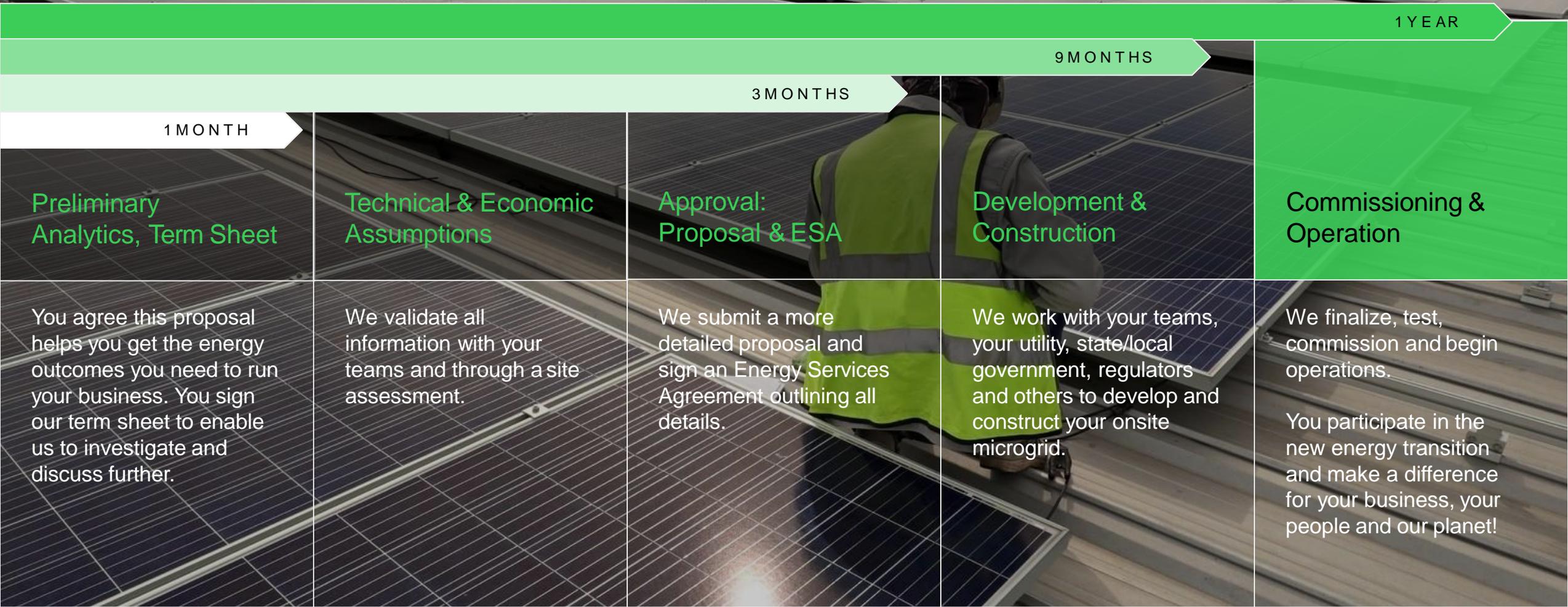
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Next Steps



Montgomery County Microgrid

Business Model Evolution

