

# Pricing and Resiliency are out of your control

Your key limitations

# Poor Reliability

In 2019, downtown CLE experienced **218.44** minutes of power outages and Brecksville experienced

**365.75** minutes of power outages

# High Cost of Energy

In 2019, downtown CLE had an average retail rate of

**\$0.15**/ kWh and had an average retail rate of

\$0.128/kWh. Over the last decade, Ohio has had a 23.25% increase in electric rates.

- U.S. Energy Information Administration

# Not Sustainable

Today you are being powered by

**0.22%** from solar energy.

# Power Outages are Costly

Outages are costing the US

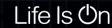
economy \$150

Billion annually

- U.S. Energy Information Administration

- FirstEnergy Environmental Disclosure

-Department of Energy





# Are you taking an active or passive approach to your energy?

Businesses have the ability to take control of their energy systems to provide cost control, power quality, and organizational resilience.

Historical **Energy Value** Chain



Centralized Generation



HV **Transmission** 



MV/LV Distribution or



**Fuel based Standalone** generation

The New Value Chain



Centralized Generation



**Transmission** 



Distribution



**Energy Customer** 

or



Off grid microgrid w/ new clean generation

Life Is On

# What is your plan to address your carbon goals?

Leaders are focused on more than bottom line metrics to grow their businesses





Transition to 100% renewable energy by 2030



Reach 100% carbon neutral before 2030



Achieve zero net greenhouse gas emissions by 2050



**Transition to zero** 

emissions by 2030



Achieve carbon neutrality by 2050



To be carbon positive by 2025



Committed to carbon neutrality by 2030

renewable sources by 2050

Be powered by 50%

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## 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.



**Sustainability** 

However, until now, selfdeployment of microgrids has entailed:

- Capital
- Complexity
- Risk



Schneider Electric

# 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



Sustainability

## Energy as a Service: creating a new category

With Energy As A Service, you get the energy outcomes you need to run your business with cost-effective, resilient, and sustainable energy.

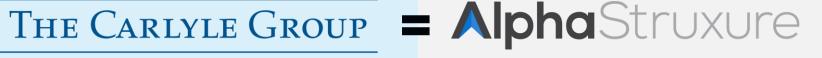


## Who is AlphaStruxure?

AlphaStruxure, a joint venture with The Carlyle Group, delivers custom-tailored EaaS solutions addressing the comprehensive needs of energy-intensive clients spanning commercial, industrial, government and infrastructure sectors. AlphaStruxure has the flexibility to deliver **bespoke** microgrid energy solutions that can also integrate adjacent energyrelated infrastructure including EV charging for fleets, data center hardware, and other advanced systems.

# Schneider Electric





Global leader in the digital transformation of energy management and automation.

- \$30+ billion in 2019 revenue
- 135,000+ employees globally
- #1 Energy as a Service (EaaS) solutions provider
- #1 Microgrid Control Solutions and Low & Medium Voltage Distribution
- Over 300 microgrid projects successfully deployed
- Leading renewable PPA advisor

"At Schneider, we believe access to energy and digital is a basic human right."

One of the largest and most diversified global investment firms with \$230 billion in assets spanning four core business segments:

#### CORPORATE PRIVATE EQUITY

- \$85b aum
- 169 active portfolio companies
- 250+ investment professionals

#### REAL ASSETS

- \$40b aum
- 150+ investment professionals

#### **GLOBAL CREDIT**

- ~\$53b aum
- 150+ investment professionals
- 1000+ borrower relationships

#### **INVESTMENT SOLUTIONS**

- \$52b aum
- 90+ investment professionals

Figures as of September 30, 2020

"Carlyle's purpose is to invest wisely and create value on behalf of its investors, portfolio companies and the communities in which we live and invest."

Uniting Schneider and Carlyle to provide an industryleading Energy as a Service (EaaS) offering

- Combines Carlyle & Schneider capabilities
- Integrates financial & technology expertise
- Provides best-in-class project delivery
- Delivers digitally-enabled asset optimization
- Eliminates execution, financial and operational risk
- Guarantees specified outcomes for sustainability, cost optimization, resilience and reliability

"AlphaStruxure is named for **Generation Alpha** – building advanced energy infrastructure for those born between the early 2010s and the mid-2020s."

## **Integrating energy & financial solutions**

Energy as a Service combines tailored energy and financial solutions, project execution, and lifecycle support.

## **Energy solution:**

On-site microgrid leverages Schneider Electric's #1 ranked technology<sup>1</sup> enabled by distributed generation including solar PV, battery storage, fuel cells, and more

## **Financial solution:**

**Capital investment** and tailored contract structure delivers guaranteed performance

### **Extended infrastructure assets**

can be included in the scope of Energy as a Service

### Lifecycle support

Customer retains day-to-day operational control with augmented capabilities

 Navigant/Guidehouse ranked Schneider Electric #1 globally for microgrid and low- and medium-voltage technology.

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## **Outcomes & Benefits**

- Energy Cost Certainty
- Enhanced Resilience & Reliability
- Improved Sustainability
- Risk Mitigation
- Capital Investment

Ability to invest in and focus on core operations

**Alpha**Struxure

## **Energy solution: Microgrid**

A local energy system with sources of generation, storage and advanced automation and control...

...often connected to the utility grid but able to **function independently**.

Microgrids deliver:



Energy Cost Certainty



Enhanced Resilience & Reliability



Improved Sustainability



## Key benefits of an AlphaStruxure EaaS agreement

#### **Zero Client CapEx**

AlphaStruxure provides an Energy Services Agreement under which AlphaStruxure makes the capital outlay, owns and takes responsibility for operating the distributed energy infrastructure to specified standards.

### **Cost Optimization & Predictability**

AlphaStruxure delivers long-term cost optimization and predictability tailored to client needs through a capacity, volumetric or blended contracting approach, while also adding value related to sustainability, resilience, reliability and on-site infrastructure upgrades.

#### **Sustainability**

Through a combination of resources – often including energy efficiency, on-site solar, battery storage, renewable fuel sourcing strategies, and procurement of renewables – AlphaStruxure guarantees our clients achieve and exceed sustainability targets set internally or required by regulation.

#### **Resilience & Reliability**

AlphaStruxure tailors microgrid design and performance to meet client-specified uptime needs, leveraging deep expertise in mission-critical environments at data center and infrastructure projects.

#### **Transformational & Unified Approach**

AlphaStruxure brings together disparate pieces of energy and sustainability strategy into one, optimized strategic approach.

#### **Risk Transfer & Guaranteed Outcomes**

AlphaStruxure backstops the performance of the system, ensuring it delivers on cost, sustainability, reliability and resilience outcomes. The full spectrum of risk – investment, construction, commissioning, operational, regulatory, and asset management – is transferred to AlphaStruxure and mitigated for the client.

#### **Tailored Contract Structuring**

AlphaStruxure provides maximum flexibility in shaping a contract to meet client needs, including a range of contract tenors and the ability to wrap in adjacent infrastructure including electric vehicle charging or other advanced technologies.

#### **Flexibility for Early Termination**

Under an AlphaStruxure Energy Services Agreement, clients have early termination and buy-out rights, with the ability to end the agreement under transparent and agreed-upon conditions.

#### **Off Balance Sheet**

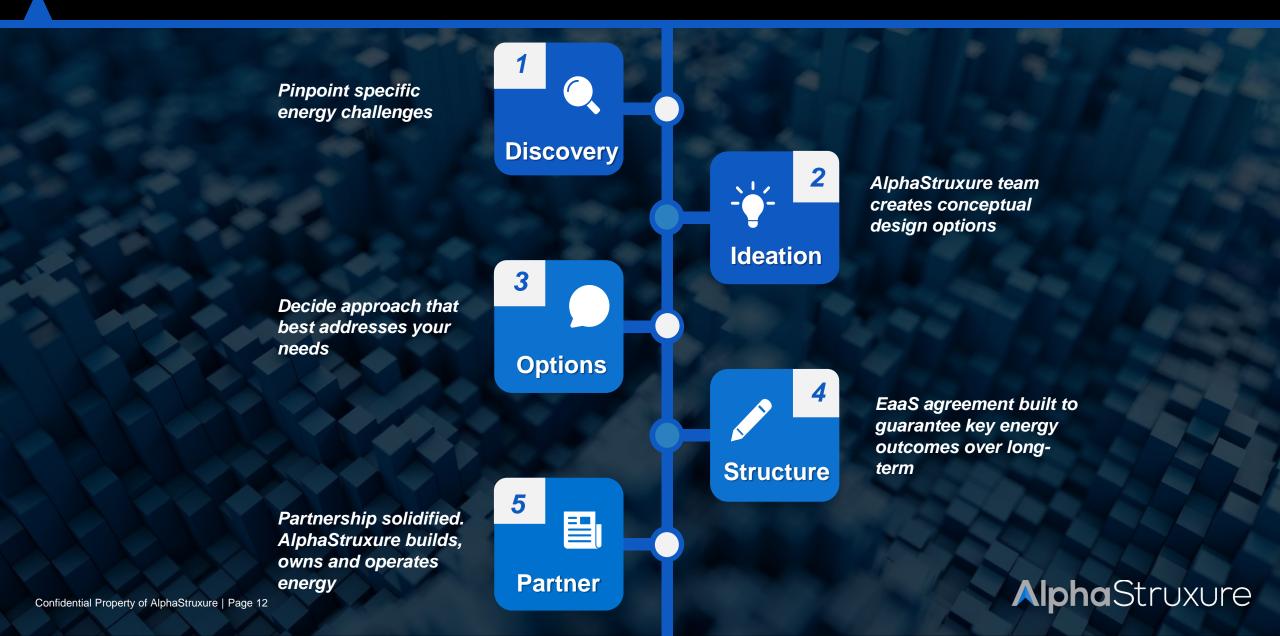
AlphaStruxure works with our clients to structure transactions as potentially off-balance sheet for accounting and tax purposes.

#### **Long-term Partnership**

Agreements are backed by the staying power, global presence, and market leadership of Schneider Electric and The Carlyle Group



## Where to start



Life Is On Schneider

AlphaStruxure