

**CITY OF CHICAGO**

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## **FRANCHISE FOR ELECTRICITY DELIVERY**

**RFI Response**

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**Philip Barton**  
Sr. Director, Microgrid Sales  
Microgrid Competency Center  
[Philip.Barton@se.com](mailto:Philip.Barton@se.com)

**Drew Gravitt**  
Director, Strategic Partnerships  
Microgrid Competency Center  
[Drew.Gravitt@se.com](mailto:Drew.Gravitt@se.com)

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**FRANCHISE FOR ELECTRICITY DELIVERY**

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## **1.0 SCHNEIDER ELECTRIC OVERVIEW**

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1.1 COMPANY DESCRIPTION

Schneider Electric provides digital solutions for **energy and automation** that drive **efficiency and sustainability**. We combine world-leading energy technologies, real-time automation, software and services into integrated solutions for Homes, Buildings, Data Centers, Infrastructure, and Industries and empower our clients to **make the most of their energy and resources**, ensuring **Life Is On** everywhere, for everyone, at every moment.



Figure 1. Schneider Electric Legacy Brands.

With revenues of approximately \$30.6 billion (approximately \$9 billion in North America) in FY2019, Schneider Electric’s 140,000+ employees serve customers in over 100 countries, helping them to manage their energy and processes in ways that are safe, reliable, efficient and sustainable.

1.1.1 LEADER IN ELECTRICAL EQUIPMENT & ENERGY AUTOMATION

As the undisputable leader in Power Management – Medium Voltage, Low Voltage, Secure Power and in Automation Systems, Schneider Electric provides integrated efficiency solutions, combining energy, automation and software. In its global Ecosystem, Schneider Electric collaborates with the largest Partner, Integrator and Developer Communities on its Open Platform to deliver real-time control and operational efficiency. Microgrids are a natural extension of our 100-year legacy in the power distribution and energy management business. Our expertise has been recognized across the industry:

**#1 Energy Services Company (ESCO)**  
Guidehouse INSIGHTS

**#1 Energy as a Service Company (EaaS)**  
Guidehouse INSIGHTS

**#1 Intelligent Building Software**  
Guidehouse INSIGHTS

**World's Most Ethical Companies**  
BY ETHISPHERE  
ETHISPHERE  
GOOD. SMART. SUSTAINABLE. PROVE.

**Smart City Solution of the Year**  
BY IOT BREAKTHROUGH

1.1.2 DEDICATED MICROGRID TEAM

The North American Microgrid Competency Center within Schneider Electric was established in order to bring together offerings from across the organization to create the best solution for every customer. Customer’s count on our team’s demonstrated experience and expertise to build energy resilience, integrate renewable energy and enable economic optimization. In the microgrid market space, Schneider Electric operates in multiple capacities ranging from the simple, acting as a project equipment provider, to the complex, providing

## 1.0 SCHNEIDER ELECTRIC OVERVIEW

full, turn-key engineer, procure, and construct (EPC) solutions. We offer a full suite of engineering services, project management, financing, and construction as well multiple hardware and software solutions for all types, sizes, and scales of microgrids as well as their deployment and coordination including SCADA systems, DMS systems, microgrid controllers, electrical infrastructure equipment, solar inverters, and intelligent forecasting and optimization solutions.

Recognized as the industry leader by Guidehouse for best-in-class microgrid technology and solutions, Schneider Electric has successfully designed, built and maintains over 350 advanced microgrid and controls projects in North America alone. Schneider Electric partners with customers to formulate energy strategies that accelerate their business performance. Schneider Electric partners with customers to formulate energy strategies that accelerate their business performance. Customers rely on Schneider Electric’s innovative, modular microgrid solutions that allow electrical distribution systems to evolve with technology and regulatory structures – all while supporting locally with responsive operations, maintenance and optimization services.

The Microgrid Competency Center has long standing strategic partnerships across the industry allowing us to build the right team for any project. Our rich microgrid and distributed energy resource project experience has allowed us to form strategic partnerships covering virtually every aspect of these complex projects. Our microgrid specific products have the ability to incorporate nearly any third-party equipment.



Figure 2. Navigant Microgrid leader board recognizes Schneider Electric as #1 for Microgrid Control Strategy.

### 1.1.3 FINANCING

There are multiple ways to finance microgrid projects including capital expenditure, grants, and Energy as a Service (EaaS). Schneider Electric has experience working with these financing methods and can provide required input and reporting as well as utilize partnerships to provide financing options to customers.

Schneider Electric is a leader in the Energy as a Service space. In 2019 Guidehouse ranked us as the number one company for EaaS offers in the Commercial and Industrial Space.

EaaS enables advanced energy management solutions—microgrids, renewables, on site power generation, demand response, automation, and analytics—to be incorporated into one offer while lowering cost barriers. These technologies can be centrally managed using Schneider Electric’s EcoStruxure platform and are supported by advisory services and a strategic ecosystem of partnerships and alliances. This approach allows clients to blend all aspects of diverse microgrid projects into one contracting vehicle that functions similarly to a lease-to-own or power purchase agreements (PPA), turning a large project expenditure into an operating expense.



Figure 2. 2019 Guidehouse Microgrid leader board recognizes Schneider Electric as the #1 EaaS solution provider.

## 1.0 SCHNEIDER ELECTRIC OVERVIEW

### 1.2 HOLISTIC PROCESS FOR DECARBONIZATION

As the leader in the digital transformation of energy management and industrial automation, we've helped thousands of organizations to decarbonize and reach their climate action goals. Our four-stage, holistic, and iterative process can help any organization to progressively move towards their ambitions. It is important to note that Schneider Electric can provide all of these services or just individual parts as desired.

#### *Stage 1 – Define Success*

The expression, “What gets measured gets managed” is as true for decarbonization as any other organizational metric. Organizations must understand, from the beginning, where they are today on the decarbonization pathway what it is they aspire to achieve. Schneider Electric can help by providing:

- ❖ Market Intelligence and Trends
- ❖ Benchmarking and footprint assessment
- ❖ Stakeholder engagement and journey mapping
- ❖ Digital solutions - energy management software and services give access to real-time data that enhances decision-making

#### *Stage 2 – Set Targets*

The type of decarbonization targets an organization sets, and the timeline to achieve those targets, is crucial to the overall success of any decarbonization program. It is essential for organizations to publicly announce their decarbonization and energy targets. Schneider Electric can help by:

- ❖ Analyzing risks and opportunities
- ❖ Emissions roadmap development and design
- ❖ Amplifying and validating public target setting

#### *Stage 3 – Deploy Programs*

Once an organization understands where it is and where it's going, the essential next stage is to deploy a developed program. Schneider Electric can help deploy programs through:

- ❖ Energy Management and Procurement - as the largest and most experienced global energy manager, we support our clients in procuring, managing, and balancing their energy and carbon portfolios.
- ❖ Efficiency
  - Energy performance contracting with guaranteed savings
  - Efficiency software and services
- ❖ Onsite Energy Generation
  - Acquiring and deploying clean and distributed technologies and microgrids, including combined heat and power (CHP), renewable gas, renewable thermal heat, fuel cells, biofuels / biomass, green hydrogen, and battery storage
  - E-mobility solutions
- ❖ Offsets
  - Sourcing and management of global energy attribute certificates (EACs), green electricity, green tariffs, and carbon offsets

#### *Stage 4 – Sustain Results*

Organizations must consistently monitor, measure, adjust, and optimize to sustain their decarbonization efforts. Market forces, legislation, regulation, technological advancements, organizational growth or contraction, and financial changes can impact these programs. Schneider Electric can provide:

- ❖ Performance tracking and analytics
- ❖ Internal and external reporting and communications

## 1.0 SCHNEIDER ELECTRIC OVERVIEW

### 1.2.1 ECOSTRUXURE

As a technical partner, Schneider Electric’s philosophy and expertise in microgrid solutions and project development fundamentally align with the project goals of increasing reliability, resiliency, safety, sustainability, occupant comfort, and cost reduction.

Schneider Electric’s revolutionary platform, EcoStruxure, delivers innovation at every level, serving our clients by meeting their energy management needs. It gathers – in one fully integrated and proven platform – all the technologies that have traditionally operated separately and previously in an uncoordinated fashion to achieve a single, interoperable architecture. It delivers more value by providing readily accessible information and by enabling real-time control based on intelligent analytics.

The EcoStruxure platform, encompassing the entire range of Schneider Electric as well as third-party products, is customized to meet each end-user’s specific requirements while simultaneously increasing safety, reliability, efficiency, sustainability, and connectivity. Tested and validated, future-proof Reference Architectures enable the design of end-to-end, open, interoperable, and connected systems. The EcoStruxure platform is inherently flexible, modular, and scalable ensuring that as the campus expands its operations, the platform will grow with it, safeguarding investments long-term.

EcoStruxure is the industry-leading Technology Stack consisting of connected products, edge control, and applications, analytics, and services.



Figure 3. The Schneider Electric technology stack provides end-to-end solutions with superior interoperability built in from conception.

**Connected Products:** Our first conviction is innovating at our core to produce great connected products. Because the Internet of Things starts with things, it is intelligent products like connected breakers, sensors, actuators and motor drives that serve as the foundation of smarter operations.

**Edge Control:** We enable our customers to have real-time solutions for control at the Edge of the IoT network. For mission critical scenarios, not all control decisions can be made remotely and overridable control of devices at the Edge of the network of things is a must.

**Applications, Analytics, & Services:** Our customers come with a variety of hardware and systems. EcoStruxure enables the most extensive breadth of agnostic Applications, Services, and Analytics working with any hardware, any systems, and any control.

### 1.2.2 DISTRIBUTED GENERATION & MICROGRIDS

Schneider Electric is the best partner for developing a wholistic approach to energy management because we can provide microgrid systems to generate onsite power, are experts in managing energy usage inside buildings, and offer Energy as a Service (EaaS) financing which means there is no upfront cost to the end-user.

In the microgrid and distributed energy resources segment we supply and integrate electrical distribution equipment including low and medium voltage switchgear, transformers, inverters, metering, safety and protection equipment, SCADA systems, DMS systems, controls, and more. We have extensive experience **integrating our solutions with third-party and legacy equipment**. Ranked as the industry leader by Navigant for best-in-class

## 1.0 SCHNEIDER ELECTRIC OVERVIEW

microgrid technology and solutions, Schneider Electric has successfully designed, built and maintains over 350 advanced microgrid and controls projects in North America alone. Customers rely on Schneider Electric's innovative, modular microgrid solutions that allow electrical distribution systems to evolve with technology and regulatory structures – all while supporting locally with responsive operations, maintenance and optimization services.

Schneider Electric has developed *microgrid specific solutions and products* to accomplish reliably functionality with the ability to *incorporate nearly any third-party equipment*. These include an Energy Management System that optimizes DERs, a microgrid controller to enable islanding and resilience and intelligent switchgear to integrate DERs on site.

### EcoStruxure Microgrid Advisor



Energy Management System forecasts and optimizes when to produce, consume, store, or sell energy while connected to the grid for the greatest economic return of connected distributed energy resources



### EcoStruxure Microgrid Operation



Power Management System responsible for utility outage detection, automated grid connection, and real-time optimization of assets in islanded mode with local microgrid controller and HMI/SCADA

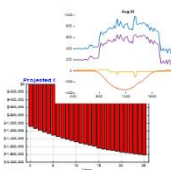


### Energy Control Center



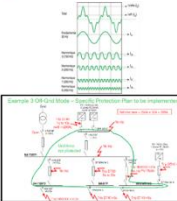
Next generation intelligent switchgear integrating site generation assets and microgrid controls into pre-engineered, factory tested, and configurable power control center

### Microgrid Feasibility Studies



Consulting services to recommend asset size, type, and mix by modeling financial impacts and maximize the value of renewables

### Power System Studies & Design



Engineering studies to ensure the proper design and safe and reliable operation of microgrid systems

### Financing



Energy-as-a-Service solutions that remove upfront costs and provide operation and maintenance services and long-term energy cost predictability



## 1.0 SCHNEIDER ELECTRIC OVERVIEW

### 1.5 DIVERSITY AT SCHNEIDER ELECTRIC

At Schneider Electric we aim to build an inclusive company in a diverse world. We believe that [“Access to energy is a fundamental human need”](#) – our aspiration is to improve lives by bringing energy, efficiency and sustainability for all, and developing sustainable energy solutions for our customers. This belief extends to our [D&I philosophy](#) as well. Our ambition is to offer equal opportunities to everyone everywhere, and we want our employees — no matter who they are, or where in the world they live — to feel uniquely valued, and safe to contribute their best.

At Schneider Electric, we have been actively promoting greater diversity within executive (27% women) and senior leadership (22% women) teams. As a UN Women HeForShe Corporate IMPACT champion, we have established a D&I Board composed of twelve top leaders. The board is a sounding board for our global strategy, as well as an internal and external D&I champion. We are supporting the work of UN Women in creating ‘Planet 50-50 by 2030’, and the United Nations’ commitment to achieving the Sustainable Development Goals.

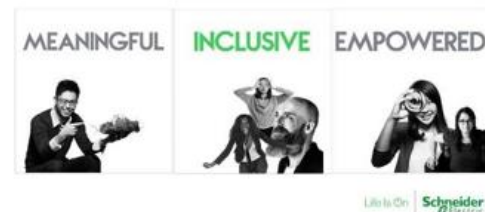
In 2018, Schneider Electric became a signatory to the UN Free & 4 Equal Standards of Business Conduct for LGBTI equality. The Financial Times has recognized Schneider Electric for the 2nd year in a row as a diversity leader and ranked [2nd within our industry](#).

#### People Vision

2018 was a significant year as we refreshed our People Vision - [Employee Value Proposition](#) (EVP); Core Values and Leadership Expectations. Embedded now within the EVP is a commitment to inclusion - valuing differences, and the aspiration to become the most diverse, inclusive and equitable company globally.



#### Our Employee Value Proposition



equitable company globally.

“Embrace Different” is no longer just an idea, it’s one of Schneider Electric’s five core values because we believe ‘different is beautiful’, and the word ‘exclusion is not even in our vocabulary’.

#### Multi-hub Business Model

We want everyone everywhere in the company to have the same chance of success, irrespective of their nationality or location. To deliver on this ambition, we transitioned from a one-headquarter model to a multi-hub model. Key jobs were then relocated to these hubs to create a global leadership structure. We realized that people are not always mobile, so instead of asking them to relocate, job opportunities were created closer to them. For example, let’s consider someone living in the US or in China, married with school going children - after having worked in the regional operations, they now have the option to take up a global job without having to relocate outside the country with their family. This is significant as it shows how via multi-hub people have equal opportunities for advancing their careers no matter where they are. Additionally, we have been able to create locally empowered teams for customers; and there’s greater diversity in nationalities at Schneider Electric. The external acclaim that this model has received is a great motivator, and we continue to build an equal spread of global jobs across the Americas, EMEA and Asia-Pacific.

#### Empowered Diversities

We want our people to reflect our business footprint, as well as the diversities of the communities in which we operate. To ensure that our people reflect the global community in which we operate, we want to have a greater mix of diversities i.e. gender, generation, nationality, LGBT+ and disabilities. But, this doesn’t happen by chance. Take gender diversity as an example, the mix only truly changes when there are least 30% women in teams dominated by men, and vice-versa. At Schneider Electric, we’ve experienced this in practice by

## 1.0 SCHNEIDER ELECTRIC OVERVIEW

actively promoting greater diversity within executive (27% women) /senior leadership (22% women) teams.

### *Inclusive Practices and Policies*

Diversity is challenging because it highlights what makes us all unique. To make it work we must hardwire it through policies and practices

Policies are cultural symbols, and so D&I needs to be hard-wired in policies and practices. For example, our [Global Family Leave policy](#) launched in 2018 allows everyone to manage their unique life and work by providing time off for occasions that matter the most. Since its launch, 59 Schneider Electric countries have implemented it covering 75% of our employees. Other examples include –

Framework to establish workplace gender equity – by the end-2018, 92% of Schneider Electric employees have been covered under pay equity process, and there are regions where actions plans are already complete. I believe that pay equity doesn't really require a business case, as it's simply the right thing to do.

Flexibility @ work – to make the multi-hub model work, we realized that a complete re-think on the very concept of flexibility would be essential. For us, flexibility is much more than just choosing hours of work, it means a culture of smart working, including workplace flexibility; working time flexibility; and a flexible/inclusive working environment. Ultimately, it's about empowering people to make the most of their energy.

The [global anti-harassment policy](#) to reinforce zero tolerance towards harassment was updated and launched in 2018.

Finally, going beyond the policies a commitment has been made within the [Schneider Sustainability Impact](#) in these key areas, and we report internally and externally on our progress.

### *Inclusive Behaviors*

To lead in a diverse environment, our leaders must embrace different and build the best teams. Behaviors of leaders can drive up to 70 percentage points of difference between the proportion of employees who feel highly included, and those who do not. At Schneider Electric, through active coaching and feedback leaders are expected to build diverse and inclusive teams. In fact, 'Building the Best Team' is now one of five leadership expectations based on which they are assessed and promoted. Additionally, through programs like "Hidden bias education" managers at all levels are encouraged to open their minds and enable a sense of psychological safety for all employees.

### *Advocacy*

Schneider Electric is committed to becoming an 'agent of change' and building a better world where diversity, inclusion, equity are not mere concepts. As a UN Women [HeForShe](#) Corporate IMPACT champion, we have established a D&I Board composed of twelve top leaders. The board is a sounding board for our global strategy, as well as an internal and external D&I champion. We are supporting the work of UN Women in creating 'Planet 50-50 by 2030', and the United Nations' commitment to achieving the Sustainable Development Goals. In 2018, Schneider Electric became a signatory to the UN Free & Equal Standards of Business Conduct for LGBTI equality. Our public commitments and achievements in advancing inclusion have been acknowledged by [Bloomberg](#), [Catalyst](#), and [Forbes](#).

### *A Journey, not a Milestone*

Diversity for diversity's sake, and the absence of inclusion can lead to chaos and inefficiency. But there are huge positives for any organization that perseveres. In an increasingly complex business environment, finding a way to blend diversity in thought and ideas not only makes an organization more human, more competitive, and more fun, it might be the only way to achieve sustained business success.

At Schneider Electric, we know the journey is long and fraught with challenges, but our commitment is unwavering. [Diversity and Inclusion](#) is our marker, our differentiating factor for the future, and that's why great people make Schneider Electric a great company.

## 1.0 SCHNEIDER ELECTRIC OVERVIEW

### 1.6 SUPPLIER DIVERSITY AT SCHNEIDER ELECTRIC

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Schneider Electric's Supplier Diversity Program provides sourcing and partnership opportunities to small, minority, woman and veteran owned businesses. This inclusion process drives economic development to the communities and customers we serve.

#### *Diversity Classifications*

- Small Business defined by SBA
- HUBZone (Small Business)
- Veteran-owned (Small & Large Business)
- Woman-owned (Small & Large Business)
- Minority-owned (Small & Large Business)
- Small Disadvantaged Business

#### *Outreach*

- National Minority Supplier Development Council (NMSDC)
- Corporate Member
- Annual National Conference participation
- Chicago Minority Supplier Development Council committee member
- Chicago Business Opportunity Fair Participant

#### *Woman's Business Enterprise National Council (WBENC)*

- Corporate Member
- National Conference participation

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1.7 CORPORATE COMPLIANCE & ETHICS: SCHNEIDER ELECTRIC’S PRINCIPLES OF RESPONSIBILITY

Below are key highlights from our Charter of Ethics titled “Our Principles of Responsibility.” The full version of this can be found at [https://www.se.com/us/en/download/document/principles\\_of\\_responsibility/](https://www.se.com/us/en/download/document/principles_of_responsibility/).

**Shared vision and values for our future, and the future of our future generations.**

At Schneider Electric, we are passionate with what we do, and have a clear vision on how we should do it. We believe that great people make great companies, and great people join companies which do business in a manner that's both ethical and responsible. Trust is the foundation of our business. Our actions, interactions and transactions build trust within the communities, companies and countries we serve. How we do business impacts many people around the world. We are a responsible company, and we pursue sustainable, long-term and net-positive business practices.

**What we need is better, not more.**

We believe access to energy and digital is a basic human right. It is an essential foundation of building peaceful and prosperous societies. Our world is transforming rapidly, and our generation is facing a tectonic shift in energy transition and industrial revolution, catalyzed by accelerated digitization in a more electric world. For the first time in history, we can all participate in a step change in efficiency and the rare opportunity to reconcile the paradox between progress for all and a sustainable future for our planet, addressing the effects of climate change and protecting natural biodiversity.

We empower all to do more with less, ensuring Life is On, everywhere, for everyone, at every moment. We provide energy and automation solutions for efficiency and sustainability. We combine world leading energy technologies, real-time automation, software, and services into integrated solutions for homes, buildings, data centers, infrastructures and industries. We make processes and energy safe and reliable, efficient and sustainable, open and connected.

**We serve our customers with care, consideration and respect.**

We take special care to ensure our customers are satisfied. We take pride in our offer quality, and our accountable, transparent processes. Everyone at Schneider, from early design to manufacturing, and all the way to life-cycle services, has a key responsibility in delivering outstanding quality for our customers.

And as customers ourselves, we remain mindful of our relationship to natural resources. We seek permanent ways of consuming less, recycling more and using our resources more sustainably.

**Our Principles of Responsibility serve as a guide to our actions and decisions.**

We believe that companies can make a positive impact and contribute to making the world a better place for all. We support sustainable development goals, and their translation into tangible business actions, as detailed in the UN Global Compact.

Our Principles of Responsibility serve as a guide for every person and every team at Schneider in terms of ethics and compliance. Together they aid us in pursuing our objectives in a way that is meaningful, inclusive and positive.

Jean-Pascal Tricoire, Chairman and CEO



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**We're In It Together / A Shared Responsibility**

Ethics and compliance are team efforts. While we are all independent custodians of the Principles of Responsibility, there will be times when we encounter grey areas, need a more nuanced understanding or seek ethical guidance. In such cases, our Ethics Delegates are available for discussions and advice; making sure no one feels unsupported in their decision-making or implementation.

**Our Governance System**

We see the Principles of Responsibility as the first point of call for matters concerning ethics. However, beyond any information contained here, or any advice you may receive from an Ethics Delegate, we have detailed policies and processes designed to provide clear, practical solutions to your questions. Policies are further supported by online learning modules designed to help build a deeper understanding of the matter, where needed.

When an alert is raised on either the Red or Green Line, it's subject to a thorough investigation with confidentiality and protection of the individual. Findings of such investigations are then submitted to the relevant governing committee, who takes appropriate action.

**Alert System For Our Employees:  
The Red Line**

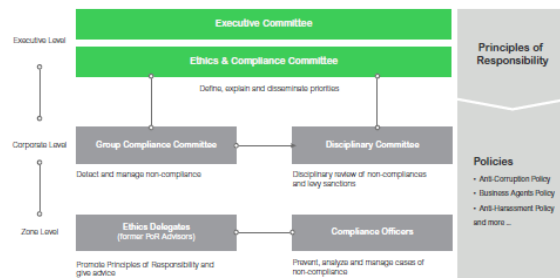
The Red Line is our internal alert system dedicated to employees. It's run by an impartial third-party and provides support to people in complex and difficult situations. It manages all reported alerts with confidentiality, so that whistleblowers can report any potential misconduct without the fear of retaliation. If you are a victim or witness to any unethical situation, we urge you to use The Red Line. It's available online globally, at all times. Please refer to your local alert management policy for more information. Alerts are systemically enquired and when necessary the management or the Disciplinary Committee, can take appropriate measures to sanction or exonerate the party or parties involved.

**Alert System For Our External Stakeholders:  
The Green Line**

The Green Line is our alert system for external stakeholders. We designed The Green Line to serve our suppliers, NGO's, shareholders and partners. This alert system is simple, intuitive and it has the same confidentiality protections as The Red Line.

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Principles Of Responsibility And The Global Governance



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## 1.0 SCHNEIDER ELECTRIC OVERVIEW

### Fair Competition, Open Economy

Fair competition matters. It is vital for markets to grow and develop freely. We share a common interest with our competitors, customers and suppliers to build a reputable sector through business practices that strengthen collective trust and cultivate long-term viability. We refuse to engage in any anti-competitive activities, and comply with the relevant laws in the countries in which we operate.



#### We DO

- Set our commercial policy and prices independently from competitors
- Act promptly when we receive commercially sensitive information from competitors; In such cases, we cease communication and report incidents to management or our legal department as soon as possible

#### We DON'T

- Agree to be confined to one territory or a group of customers
- Accept or apply a price or discount to our customers in agreement with competitors
- Intentionally communicate using vague language that could be misleading from a competition-law standpoint

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Competition Law Global Policy



Compliance and Legal



Red Line



Green Line

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### Corruption, Bribery, Money Laundering, Gifts And Hospitality

Corruption and bribery are prohibited by law, and unacceptable at Schneider Electric. Let's ensure that our activities are always above board. We uphold a zero-tolerance policy for corruption. This means strictly no unauthorized or hidden payments, kickbacks or facilitation payments (such as those payments made under the pretext of securing or expediting legal government action). Adherence to our Anti-Corruption Code of Conduct is non-negotiable. In addition, we do not tolerate any actions that can be viewed as money laundering or avoidance of transparent payment flows.

We practice disciplined conduct with gifts and hospitality. We acknowledge that gifts and invitations can help build understanding and business relationships, however it must never be aimed at granting or obtaining an undue advantage or influencing a decision. Hospitality and gifting must always comply with the necessary criteria of clear business objective, transparency, reporting, and reasonable value. These criteria are detailed in our Gifts and Hospitality Policy.



#### We DO

- Highlight our zero-tolerance for corruption and money laundering, both internally and when dealing with third parties
- Comply with our Anti-Corruption Code of Conduct and our Gifts and Hospitality Policy. And we report any behavior that may infringe them
- Make sure that all gifts, invitations, sponsorship activities and hospitality packages offered or received are appropriate, lawful and in line with our policies
- Follow all accounting, recordkeeping and financial reporting requirements applicable to payments

#### We DON'T

- Grant illegitimate benefits to any third party to expedite processes or gain favor
- Request or receive illegitimate benefits from any third party
- Pay for our customer or partners' trips without a complete review by our Compliance Officers
- Accept or give any gifts in cash

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Anti-Corruption Code Of Conduct  
Gifts & Hospitality Policy



Compliance and Legal



Red Line



Green Line

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## 1.0 SCHNEIDER ELECTRIC OVERVIEW

### Integrity Of Business Agents And Third Parties We Contract With

While we are all aware that the use of third parties in our business projects may be necessary, let's also remember that using third parties can prove to be very risky, especially with regards to corruption and unethical practices. Remember, we can be held accountable for the actions of our third parties.

#### We DO

- Avoid the use of business agents whenever possible
- If business agents are used, we adhere to our Business Agent Policy and report all third parties in the scope of our contracts clearly, and define their involvement
- Conduct due diligence on third parties in compliance with our internal processes and have them approved by the relevant managers
- Ensure that third parties adhere to the contract without conflict of interest
- Collect and maintain activity reports to rationalize the price paid versus services provided
- Record payments made to business agents and other parties, with accurate and auditable amounts

#### We DON'T

- Engage in a business relationship with a business agent who has not been subjected to due diligence and all internal approvals
- Engage in a relationship with a third party who doesn't produce evidence to support the scope of work
- Pay a third party without following the payment terms defined in a contract, without the existence of an invoice or without the prior approval from relevant managers
- Conceal payments made to agents or third parties, or record ambiguous and unclear descriptions of such payments



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Business Agent Policy

Compliance and Legal

Red Line

Green Line

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### Trade Regulations And Sanctions

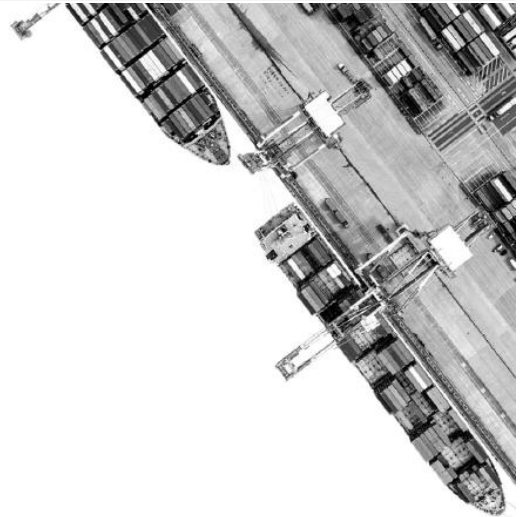
Our business is global and involves many countries. Schneider, and all our employees, aim to comply with applicable trade sanctions and export control laws and regulations, in each country where we conduct business.

#### We DO

- Commit to develop business in respect of trade regulations
- Comply with our Global Export Control Policy and Directive, and any potential non-conformance observation
- Implement and enforce due diligence controls in line with our policies systematically
- Follow reporting and recordkeeping requirements in compliance with the applicable laws and guidelines

#### We DON'T

- Circumvent any applicable laws and regulations related to our export licensing requirements
- Conduct business activities without prior due diligence and clearance



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Export Control Policy

Tax and Legal

Red Line

Green Line

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## 1.0 SCHNEIDER ELECTRIC OVERVIEW

### Sincere Financial Statements, Accurate Records

It is our duty to make sure that all our financial records are accurate, properly maintained and transparent. We make it a point to precisely reflect our performance in our financial and accounting information, keeping with international financial reporting standards. We know this is essential to the honest, efficient and lawful conduct of our business, and must all do our part in ensuring it.

#### We DO

- Make sure that financial and business records, including financial and non-financial reporting, are always accurate
- Maintain records securely and follow any guidelines on record retention

#### We DON'T

- Accept cash transactions, unless the transaction has been expressly authorized, properly recorded and documented
- Conceal payments via the use of third parties



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### Representing Schneider Electric

We are all custodians of our brand. It is through our actions that the image of the company is built. We're aware that in our communications, both formally and in informal forums and discussions, we continue to represent the company. Therefore, we must choose our actions responsibly and our words wisely.

#### We DO

- Demonstrate our ethics in our professional behavior outside the company
- Use the official communication material and follow the brand rules and guidelines
- Protect the company's reputation by constantly having its best interest in mind
- Act cautiously while exchanging information on social networks and web forums, keeping in mind that what's on the web is never entirely private and remembering that "the internet never forgets"

#### We DON'T

- Interact with the press or engage in public speaking without prior internal approval
- Engage in activities that could reflect negatively on the company
- Involve Schneider in our personal convictions and beliefs
- Express our personal opinions about Schneider through official communication
- Disparage the company and our colleagues on external forums



2020 Edition 

 Social Media Policy

 Global Marketing

 Red Line  Green Line 26

## FRANCHISE FOR ELECTRICITY DELIVERY

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### 2.0 PAST PERFORMANCE



2.0 PAST PERFORMANCE

2.0 PAST PERFORMANCE

2.1 MONTGOMERY COUNTY MARYLAND, TWO MICROGRID-AS-A-SERVICE PROJECTS



**Montgomery County Two Microgrids Project Highlights:**

- PV Car Ports w/ EV Charging Stations
- Roof-top PV
- **Achieved highest PEER score in U.S. GBC history**
- CHP system
- Islanding capability
- Load management
- Electrical distribution equipment upgrade/replacement
- **No money down – Microgrid-as-a-Service contract (25 years)**
- Operation & Maintenance contract (25 years)
- Permitting & Interconnection Agreements

**Project Description**

**Location:** Montgomery County Maryland

**Size & Generation:** 4MW Total  
PSHQ Facility – 800kW CHP, (2) 1MW natural gas standby gensets, 1.975MW PV  
MCCF – 220kW CHP, (2) 1.3MW natural gas standby gensets, shares access to PSHQ PV systems

**Contract Value:** \$16M (6M Schneider Electric) as a 25-year Microgrid-as-a-Service contract, \$2.25M Operation and Maintenance Contract (25-year)

**Project Duration:** 25 years (18 months construction, complete August 2018)

**Project Scope**

Schneider Electric with our financing partners Duke Energy Renewables’ completed two advanced microgrids that increase resiliency and sustainability at Public Safety Headquarters (PSHQ) and Montgomery County Correctional Facilities (MCCF). Schneider Electric was successfully down selected from 19 qualified respondents. Great importance was placed on the project incorporating solar and high-efficiency combined heat and power to enable grid paralleled and off-grid operation. The project was delivered via an innovative, public-private Microgrid-as-a-Service model eliminating client up-front costs.

Schneider Electric’s role is to bring comprehensive design and implementation of the solution using Schneider Electric and third-party equipment and software. Schneider Electric project content includes engineering services, protection control and optimization, electrical equipment, distributed energy resource management and optimization software and controls, electrical design services, cybersecurity, and network design. Duke Energy Renewables owns both advanced microgrids, and its affiliate, REC Solar, built the solar system. Schneider Electric also assists Duke Energy Renewables in the operation of the microgrids. Both sites are being built with the future in mind and can easily have battery energy storage systems or other additional types of distributed energy resources (DER) added.

The following figure illustrates the project’s conceptual system architecture including Schneider Electric’s industry leading EcoStruxure Microgrid Advisor (EMA) optimization platform (more information on this product can be found in Section 3.1.2 “Solar” subsection “EcoStruxure Microgrid”).

**Voice of the Customer:**

*“I am pleased we are making significant strides in several of our key priorities—sustainability, safety and security. Microgrids and other upgrades to critical facilities improve the County’s resiliency, so we can keep residents safe and provide needed services even in the event of prolonged power outages.”*

Isiah Leggett  
Associate V.P., Facilities

## 2.0 PAST PERFORMANCE

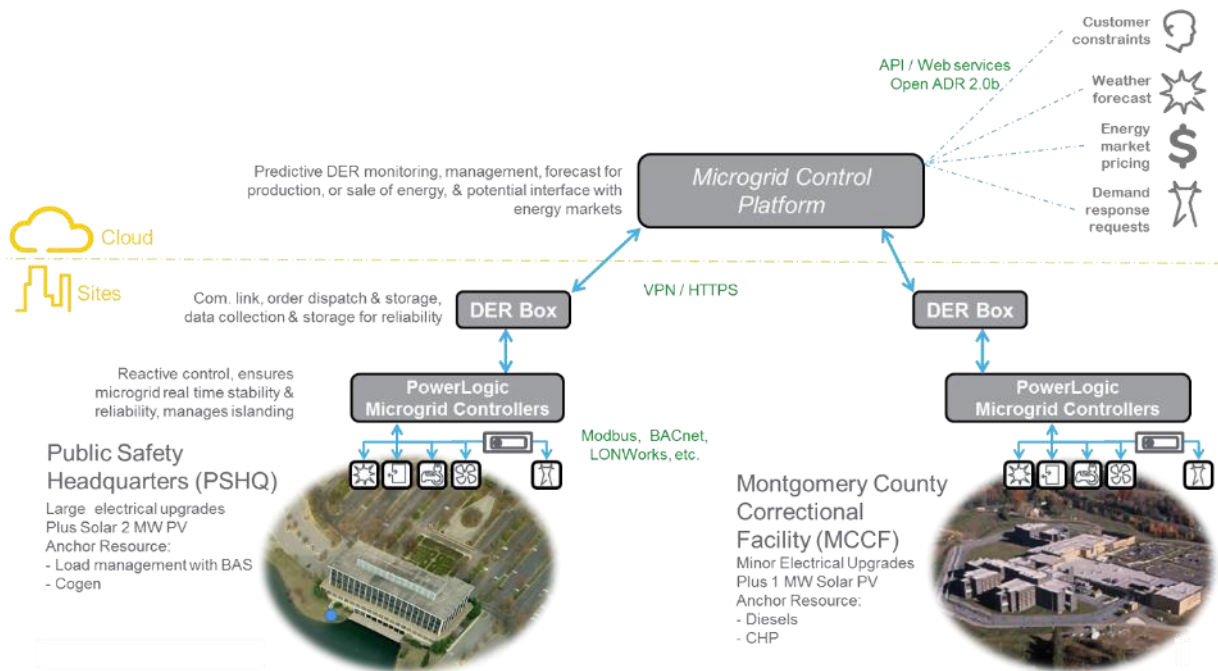


Figure 4. Montgomery County Microgrid Conceptual System Architecture.

### Project Benefits and/or Savings

The project brings numerous benefits to Montgomery county including, but not limited to:

- Site resiliency even in the wake of natural disasters
  - The CHP and solar production will both be utilized in both grid paralleled and an islanded mode of operation upon loss of utility. The requirement from the county was to run entirely grid disconnected, for a minimum of 7 days, powering the entire facility (PSHQ). Our system will in fact run much longer than this requirement.
- Reliable power production
- Electrical and heating load cost offset
  - The microgrids produce approximately 3.3 million kilowatt hours of solar energy each year, equivalent to powering about 400 average homes each year
- No upfront investment
  - Microgrid-as-a-Service contractual model allowed for electrical infrastructure upgrades, generation equipment, and microgrid controls to be financed through low monthly energy bills like a solar PV Power Purchase Agreement (PPA)
- Electrical infrastructure upgrades
- Reduction in carbon footprint
  - The systems produce 7.4 million kilowatt hours of combined heat and power each year, which saves energy by using waste heat from on-site power generation to heat and cool the buildings. Combined, the on-site power generation at these two facilities is anticipated to reduce greenhouse gas emissions by 3,629 metric tons each year, as much as taking 767 cars off the road.
- Renewable and sustainable energy production
- Electrical generation inclusive of electrical distribution upgrades, microgrid components, and renewable generation at utility pricing parity

## 2.0 PAST PERFORMANCE

### Project Challenges & Successes

Key challenges for this project included:

- Capital procurement not an option
- Some aspects of the solution can be tied to volumetric commodities (e.g., electricity) while other cannot
- Rebate, tax credit, and incentive uncertainty
- Approach new to utilities and permitting officials
- Packaging to multiple sites
- Difficulty constructing “in situ”

Successes and creative problem solving included:

- Structured innovative public, private, partnership to:
  - upgrade existing aging electrical infrastructure without capex
  - control energy cost exposure
  - provide a contract vehicle for future enhancements and peer jurisdictions
  - provide resilience of county operations by producing and consuming locally and islanding for 7+ days

Examples of the most critical lessons learned from implementation of previous projects:

- Schneider Electric leveraged lessons learned around previous Microgrid-as-a-Service projects like the Boston One Campus Research and Development Headquarters project for the Montgomery County, Maryland PSHQ and MCCF microgrids. Montgomery County officials are now assessing portfolio for future projects with Schneider Electric, integrating microgrid concepts into future building designs, sharing best practices with other agencies and private sector. Hear more about the project directly from Montgomery County’s Michael Yambrach here:

<https://event.on24.com/wcc/r/1564842/E3A0D67E1BE315EFFF26D237E9A53ABEProject>

### Vendors/Partners & Role

<b>Schneider Electric</b>	Project Prime Contractor, full engineer, procure, and construction responsibility, microgrid vendor, and partial O&M service provider
<b>REC Solar</b>	Solar Integrator and partial O&M service provider
<b>Duke Renewables</b>	Project Financier and guarantor


#### Voice of the Customer:

*“The way we finance these types of resiliency projects is a national model for other local governments and the private sector. Rather than buying the microgrid system outright, the County partners with a private entity that owns, operates and maintains the system. The County then purchases the electricity and heat generated. This model allows us to further modernize and improve the capabilities of our facilities at low or no cost while also reducing our environmental impact.”*

David Dise  
Director, Dept. of  
General Services

## 2.0 PAST PERFORMANCE

### 2.2 TOWN OF FAIRFIELD MICROGRID PROJECTS



**Town of Fairfield Microgrids Project Highlights:**

- Solar PV
- Load management
- Islanding capability
- Electrical distribution equipment upgrades
- Metering system
- Permitting & Interconnection Agreements
- CHP
- Grant Funding
- Fuel Cell

#### Project Description

<b>Location:</b>	Fairfield, CT
<b>Size &amp; Generation:</b>	2.45MW Total (split between two microgrids) 1.6MW Solar PV (multiple arrays) <b>440kW Fuel Cell</b> <b>350kW Natural Gas Generator</b> <b>60kW Tecogen CHP</b>
<b>Contract Value:</b>	<b>Multiple</b> , \$1.1M and \$2.5M
<b>Project Duration:</b>	6 months (construction), Complete & operating

#### Project Scope

In 2012, Superstorm Sandy pummeled the Town of Fairfield, causing power outages and severe flooding. Afterward, an already innovative and environmentally conscious town government went into overdrive, searching for more ways to use renewable and reliable energy sources. In this case, microgrids.

Connecticut became an early leader in microgrid development after ice storms and hurricanes crippled its utilities— even before the 2012 Superstorm Sandy. In fact, the state was the nation’s first to fund microgrid development at critical facilities. And, with Schneider Electric’s support, Fairfield was among the first towns to receive a microgrid grant—\$1.1 million— from the Connecticut Department of Energy and Environmental Protection.

The Town’s first microgrid harnesses 350 kW from a natural gas generator. This is shared across the town’s police and fire stations, emergency communications center, cell phone tower, and homeless shelter. The buildings also have a 60-kW combined heat and power (CHP) system and a small 47 kW solar photovoltaic (PV) array which aren’t connected to the microgrid during normal grid mode. During island mode, the buildings all utilize the energy from the natural gas generator as well as the CHP and solar. This mix of generation is optimized by a state-of-the-art microgrid control system that enables the microgrid to be ‘smart’ in that it will manage its power supply so that it uses available renewable resources first.

In all, the microgrid is designed to supply 120 percent of the town’s peak demand power for the buildings it serves. As a bonus, the natural gas-powered microgrid saves the town about. These savings directly stem from the operation of the 60 kW Tecogen CHP unit and the rooftop solar.

Fortunately, no crisis has presented itself yet that would require emergency operation of the microgrid. But the microgrid has successfully passed several tests of its islanding ability. The ability to avoid future outages at these critical facilities is priceless to this coastal town.

Fairfield’s second microgrid is part of a larger resiliency project for its waste water treatment plant, which experienced severe flooding during Sandy. The town won a U.S. Housing and Urban Development grant of \$2.5 million for the microgrid project. It also received an additional federal HUD grant administered by the State Department of Housing for hardening projects, such as building a sea wall, that are designed to improve resiliency at the plant. The microgrid and hardening projects are being coordinated.

## 2.0 PAST PERFORMANCE

The microgrid uses a variety of distributed energy resources. A 440-kW fuel cell will operate in parallel to the grid and during island mode. In case of emergency, the microgrid will provide power to the waste water treatment plant's five buildings, as well as an animal shelter, a garage, and a fire training center. There are a variety of solar PV installations across the buildings:

- 54kW & 27kW – Animal shelter
- 13kW – Fleet garage
- 21kW – Fire safety training
- 1.4MW – Landfill
- 42kW – Compost facility

The microgrid is 'smart' in that it will manage its power supply so that it uses available renewable resources first. Furthering the project's environmental benefits, Schneider Electric will be removing some of the town's older diesel generators and adding a large natural gas generator.

Fairfield's second microgrid is a more complicated and dynamic project than the first public safety microgrid. This is in part because the waste water treatment plant is by far the largest consumer of electricity in the town. Adding to the complexity is the large number of buildings that need to be connected to the microgrid. The waste water microgrid is expected to be completed by late 2018.

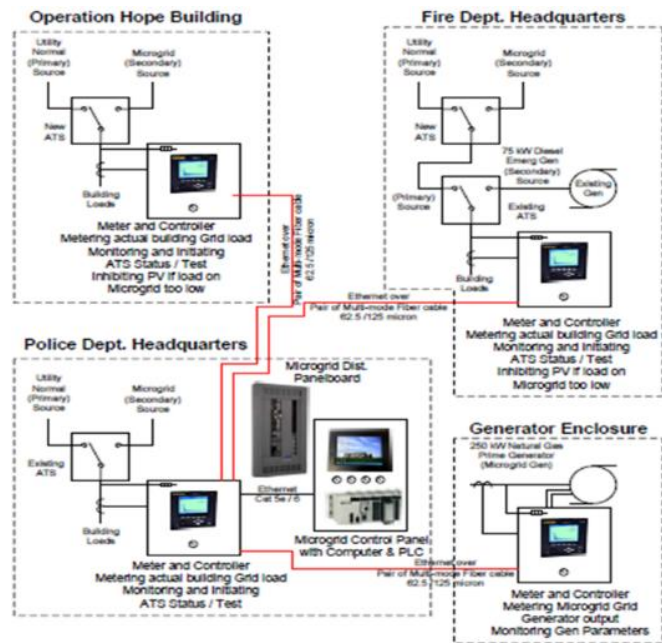


Figure 5. Town of Fairfield Public Safety microgrid schematic

In both microgrids Schneider Electric acted as the design-build contractor and was responsible for all commissioning and start-up requirements. We also handled all utility interconnect application requirements.

### Project Benefits and/or Savings

The Tecogen CHP unit and the rooftop solar saves the town approximately \$60,000 in electricity and \$10,000 in heating costs annually for its public safety buildings. Additional electrical savings are made possible by the other PV arrays.

The town also benefits from resilient and reliable power in the case of a utility outage, but fortunately, no crisis has presented itself yet that would require emergency operation of the microgrids.

### Project Challenges & Successes

Schneider Electric has vast experience in deploying microgrid and power system projects. This experience means we have learned what to expect and how to plan ahead for it. Because of this, the Town of Fairfield microgrid projects went smoothly. The only challenge that arose was crossing one of the State of Connecticut's right of ways. Attempting to do this in some states would be incredibly difficult, however provisions in Connecticut's laws made it possible if proper permitting is filed within the appropriate timeframes.

### Project Vendors/Partners & Role

**Schneider Electric** Project Prime Contractor, full engineer, procure, and construction responsibility, microgrid vendor

## 2.0 PAST PERFORMANCE

### 2.3 MCAS MIRAMAR MICROGRID



#### MCAS Miramar Microgrid Project Highlights:

- Solar PV
- Battery Energy Storage System (BESS)
- Load management
- Islanding capability
- Electrical distribution equipment upgrades
- Permitting & Interconnection Agreements
- Landfill gas generation
- Energy security for over 100 mission critical facilities
- Advanced SCADA system

#### Project Description

<b>Location:</b>	San Diego, CA
<b>Size &amp; Generation:</b>	11.8MW total 1.6MW Solar PV <b>3.2MW Landfill Gas Generator</b> <b>(2) Diesel Gensets</b> <b>(2) Natural Gas Generator</b> <b>(1) 1.6MW/1MWh Battery Energy Storage System (BESS)</b>
<b>Contract Value:</b>	<b>\$6.3M (Schneider Electric)</b>
<b>Project Duration:</b>	24 months (contracting & construction), Under Construction

#### Project Scope

Miramar, one of the largest advanced military microgrid projects in the U.S., enhances energy security while offering support to the larger central grid in San Diego, CA. After the largest power outage in California history, the Department of Defense selected Schneider Electric and Black & Veatch (via a project-specific joint venture) to develop the microgrid which will be fully operational in July 2018 and serve over 100 mission critical buildings. The advanced microgrid has been built leveraging existing distributed energy assets already on the base, including 1.6 MW of solar PV and 3.2 MW generated from landfill methane gas. It also incorporates a small microgrid within the microgrid that uses a synchronized flow battery and PV to island a building. Two diesel and two natural gas generators, totaling 7 MW will be used in several ways: for backup power, to provide support services to the central grid, and to help the installation reduce its utility demand charges, manage load and participate in demand response programs as well as firm renewable energy. "For us that's a huge economic opportunity," said Mick Wasco, MCAS Energy Installation Manager, who said that spikes in demand created by the intermittency of the landfill gas costs the installation up to \$300,000 per year in demand charges. Hear more about the project from MCAS Miramar's Commanding Officer, Colonel Jason G. Woodworth:

<https://www.facebook.com/SchneiderElectricUS/posts/1563756813667760>

A second phase of this project will apply CEC grant funds to implement a lithium ion battery energy storage system (BESS) from Schneider Electric to the microgrid. The system will provide grid support and serve as a quick power injection device in case any of microgrid's based loaded generation assets drop offline. This is of special concern as the landfill gas-based generation can produce inconsistent power levels or may unexpectedly drop offline if the gas production lacks sufficient supply or quality. Prior to the BESS implementation dropping of a base loaded asset resulted in setting a new peak demand for the year

## 2.0 PAST PERFORMANCE

negatively impacting the base's annual operating expenses.

### Project Benefits and/or Savings

- Energy resiliency
- Increased renewable and sustainably produced generation
- Resolves the spikes in demand issues created by the intermittency of the landfill gas saving the installation up to \$300,000 per year in demand charges.

### Project Challenges & Successes

Key challenges of this project included:

- Coordinating gas and air permitting and interconnect requirements
- Organizing and implementing base security access for key personnel
- Coordination of planned shut downs and disruptions for a base that supports critical flight operations
- Managing a complex matrix of multiple customer stakeholders including various departments from base, the naval facility command contracting arm, external utilities, and 3rd-party power providers.

Successes and creative problem solving included:

- Leveraged design charrette and software development workshops & checkpoints to socialize key concepts.
- Worked with project stakeholders to educate, train & drive alignment and support throughout the project.
- Created and implemented a robust communication plan and series of engagements that involved F2F report based updates including holding demonstrations, circulating documentation that outlines project progress and deliverables.
- Performed facilitated partnering sessions to integrate the customer and project teams.

Critical lessons learned from implementation of previous projects:

- We've learned it's critical to allow the appropriate time for the Project Initiation and Set Up Phase prior to the execution of the design work to allow the project foundational elements to be in place.

### Project Vendors/Partners & Role

#### Schneider Electric

Project Prime Contractor, full engineer, procure, and construction (EPC) responsibility for the microgrid controls and associated balance of plant equipment vendor, and partial O&M service provider

#### Black & Veatch

Co-Prime Contractor, diesel and natural gas power plant EPC

### Voice of the Customer:

*"This is a really complex innovative thing that we're doing here – taking large amounts of renewable energy and combining it with a central, conventional power plant to provide backup power to the installation. This is not just backup power like a traditional backup generator on a critical system; this is a redundant source of power that will provide us 100 percent capability in over 100 mission-critical buildings on base, including the entire flight line."*

**Mick Wasco**  
Energy Program  
Manager, MCAS  
Miramar

## 2.0 PAST PERFORMANCE

### 2.4 UNIVERSITY OF NORTH TEXAS, CITY OF HOUSTON, CITY OF DALLAS

University of North Texas, City of Houston, City of Dallas, FAA, and Southern Methodist University are among the scores of district energy systems in the \$9.5 M to \$45 M CapEx range which were developed, engineered, built and guaranteed by Schneider Electric.

All projects were financed by various sources arranged by Schneider Electric to maximize the energy savings or energy production at the best possible cost. In these examples, state subsidized lease purchase programs, utility rebates, and energy lenders all played a role. Schneider Electric guaranteed the performance to minimize the cost of capital.

For the University of North Texas, Schneider Electric implemented a multi-phase project that touched 54 buildings and 5.4 M square feet. Texas Public Finance Authority – Master Equipment Lease Purchase Program

<https://www.schneider-electric.us/documents/buildings/university-of-north-texas.pdf>

The City of Dallas benefited from several contracts that saved \$1.28M in energy per year for a \$9.4M capital cost. Among the energy savings measure were new cooling towers, 1800 tons of chiller capacity and solar hot water were brought to city facilities

<https://www.naesco.org/data/casestudies/Case%20Study%20-%20City%20of%20Houston.pdf>

#### Voice of the Customer

*“After partnering with Schneider Electric for over a decade and experiencing a 30 percent decrease in energy costs and an unprecedented reduction in our carbon footprint, we look forward to building on that relationship and achieving our sustainability goals.”*

**Charles Jackson**  
Associate V.P., Facilities.

*“The performance contract provides the city with \$9 million in infrastructure spending that won’t impact the operating or capital budgets or bond funds. It’s a win-win deal for the City of Dallas.”*

**Steven Park**  
Director, Bld Services  
City of Dallas



**FRANCHISE FOR ELECTRICITY DELIVERY**

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## **3.0 ALPHASTRUXURE – ENERGY AS A SERVICE**

### 3.0 ALPHASTRUXURE – ENERGY AS A SERVICE

## 3.0 ALPHASTRUXURE – ENERGY AS A SERVICE

### ABOUT ALPHASTRUXURE

AlphaStruxure is a joint venture between The Carlyle Group and Schneider Electric created to be the trusted partner for energy transformation. To meet our clients' objectives for sustainability, resilience and energy cost management, we develop, build, own, operate and maintain custom Energy as a Service (EaaS) solutions that integrate distributed generation, advanced energy management, and tailored infrastructure into digitized microgrids.

AlphaStruxure has over \$2 billion in EaaS microgrid projects under development across the U.S. and Canada. These projects include innovative energy and electrification infrastructure solutions, including a first-of-its-kind microgrid serving Montgomery County, Maryland's growing electric bus fleet. New York's John F. Kennedy International Airport will also be home to an innovative AlphaStruxure EaaS microgrid, powering the world-class 2.9 million square foot New Terminal One.

AlphaStruxure's EaaS offering delivers custom distributed energy infrastructure solutions with no capital investment required by our clients. Importantly, our approach extends beyond microgrids to include "Infrastructure as a Service" wrapping in advanced energy-related systems including EV chargers. As a result, AlphaStruxure projects deliver truly turnkey infrastructure solutions that ensure reliability, resilience, sustainability, and reduced reliance on the utility grid.

Made up of a seasoned group of professionals bringing deep expertise in project finance, public private partnerships, and microgrids, AlphaStruxure's dedicated team has collectively designed, built and operated 100+ microgrid and advanced energy projects leveraging sophisticated project finance solutions.

Life Is On

Schneider  
Electric

**Schneider Electric** is a global Fortune 500 firm founded in 1836. With operations in over 100 countries and over 128,500+ employees, Schneider Electric achieved over \$30 billion in 2020 revenues and has been ranked the most sustainable company in the world and the

leading microgrid solution provider globally. Most recently, Schneider was awarded #1 most sustainable company in the world by Corporate Knights' Global 100 Index.

Schneider Electric's portfolio of distributed energy and microgrid projects includes 550+ U.S. prime projects with guaranteed energy production and energy savings initiated since 1992. Short-fall checks on savings or production have been less than ½ of 1% - amongst the lowest in the industry. Schneider Electric's size, financial strength, project track record, and experience in digital energy solutions mean we can deliver projects to clients with the lowest risk and lowest costs in the industry.

Schneider Electric has consistently achieved best-in-class rankings across multiple energy and digital disciplines, including Energy as a Service, Intelligent Building Software, microgrid technology, and sustainability.

### THE CARLYLE GROUP

**The Carlyle Group** (NASDAQ: CG) is one of the world's largest and most diversified global investment firms, with \$246 billion of assets under management across three business segments and

397 investment vehicles. Founded in 1987 in Washington, DC, Carlyle's global team is comprised of over 1,800 professionals operating in 29 offices across five continents. Across the firm, Carlyle's mission is to drive long-term value for its investors, companies, shareholders, people and communities. Today, Carlyle's portfolio companies employ 960,000 people around the world.

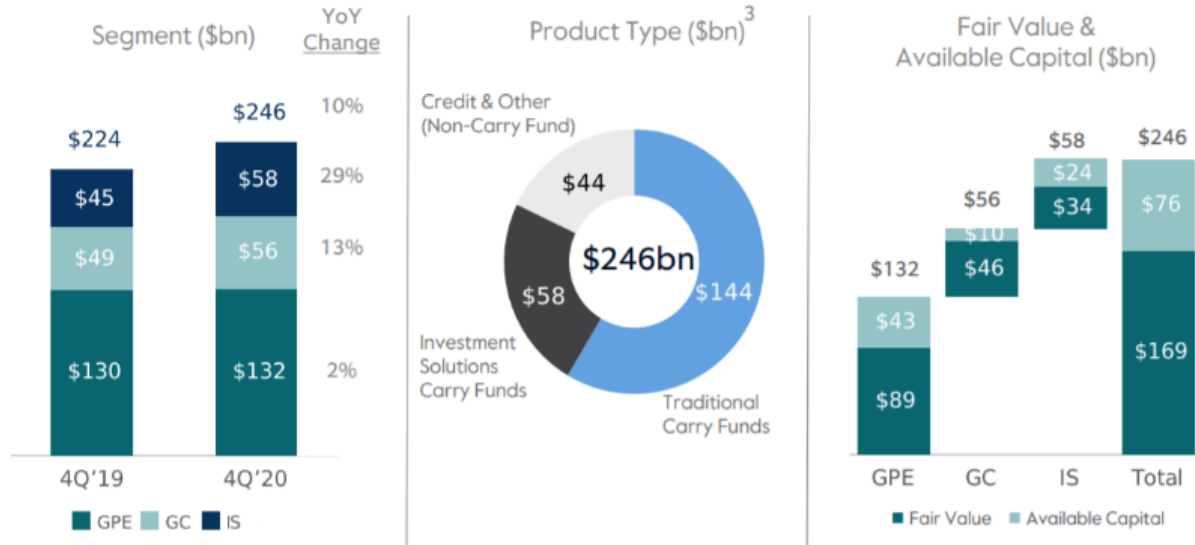
Carlyle Power Partners (CPP) is a dedicated fund and operating company with the primary purpose of investing in the U.S. power generation sector. Since launching its power business in December 2012, Carlyle has acquired 44 plants across the U.S. with a total net capacity of 11.5 gigawatts (GW). Carlyle currently owns 26 utility-scale power plants totaling 9.2 GW net of generating capacity across a broad range of fuel/technology platforms, including solar, wind, hydro, and natural gas (combustion turbine and combined cycle gas turbines).

3.0 ALPHASTRUXURE – ENERGY AS A SERVICE

FINANCIAL SUMMARY

As a joint venture, AlphaStruxure brings the combined financial capabilities of its parent organizations, The Carlyle Group and Schneider Electric. Carlyle’s \$246 billion in assets is spread across three business segments: Global Private Equity (GPE), Global Credit (GC), and Investment Solutions (IS). Between Q4 2019 and Q4 2020, Carlyle saw a total of 10% year-over-year growth, and as of year-end 2020, Carlyle has \$76 billion in “dry powder” available capital for investment. Full [Carlyle 2020 Financial Results](#).

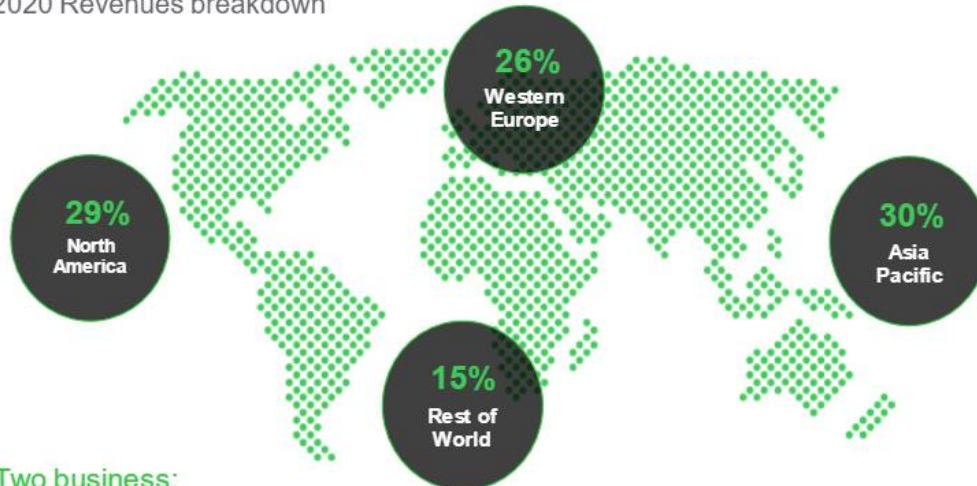
Along with Carlyle, Schneider Electric also brings global reach and financial strength. A combination of strong



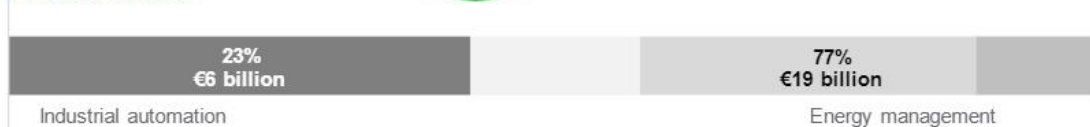
execution and its resilient business model drove Schneider Electric’s 2020 outperformance of peers with revenue of €25.2 billion. Schneider has a well-balanced global presence, with 128,500+ employees in over 100 countries, 41% of revenue in new economies, and 5% of revenues devoted to research and development. Full [Schneider Electric 2020 Financial Results](#).

A well-balanced global presence

2020 Revenues breakdown



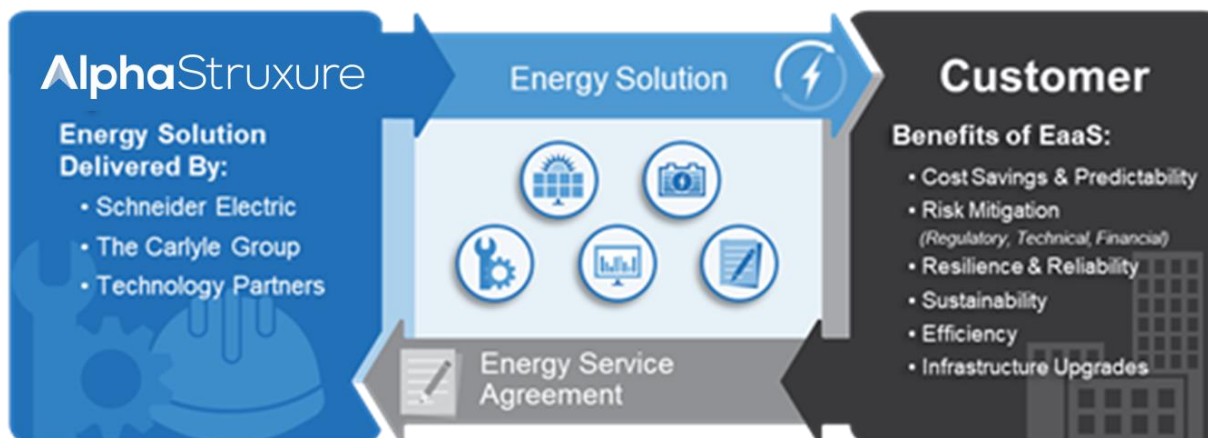
Two business:



### 3.0 ALPHASTRUXURE – ENERGY AS A SERVICE

#### WHAT MAKES ALPHASTRUXURE DIFFERENT

AlphaStruxure’s Art of the Possible process and EaaS solutions represent a departure from traditional Energy Service Companies (ESCOs) for three key reasons: the flexibility and customization of our approach, the comprehensiveness of our offering, and our dedicated in-house, technical, financial, execution, and operational capabilities. In addition, AlphaStruxure and our parent companies Schneider and Carlyle global reputations, unparalleled staying power, and leading industry expertise.



#### > Flexibility & Customization

AlphaStruxure delivers the superior sustainability expertise of Schneider Electric microgrid and Energy and Sustainability Services (ESS) consulting, along with the tailored EcoStruxure™ IIoT technology stack and best-in-class distributed energy technologies through a range of strategic technology partners.

#### > Comprehensive Technical, Financial and Contractual Solutions

Unlike other providers, through The Carlyle Group, we have ready-to-deploy capital with in-house financing, underwriting and structuring capabilities. AlphaStruxure EaaS solutions are delivered with bankable performance guarantees, deep industry expertise within AlphaStruxure and Schneider, and a differentiated project execution record.

#### > In-House Capabilities & Expertise

AlphaStruxure’s capabilities are led by dedicated teams for development, design, finance, construction, execution, operation, backed by the global capabilities and staying power of Schneider and Carlyle and leveraging local resources according to the project.

#### > Energy and Financial Leadership and Staying Power

Schneider Electric and The Carlyle Group are recognized around the world for their respective leadership in energy innovation and financial capabilities.

### 4.0 Art of the Possible

AlphaStruxure’s Art of the Possible process involves a consultative engagement with SAS around your desired outcomes for sustainability, resilience, reliability, and cost management. Steps in this process include Consult & Advise, Design & Build, Finance & Own, and Operate & Maintain.

## ➤ Consult & Advise

Working together with SAS, a dedicated project team of AlphaStruxure and Schneider Electric energy and sustainability experts will evaluate your facilities, energy data, and sustainability business objectives. Following a detailed, review and analysis, AlphaStruxure will present SAS an “Options Space” that includes an optimized resilient energy solution. AlphaStruxure projects often integrate a range of innovative technologies across the following areas.

### Optimized Solution Stack

- **Energy efficiency** improvements
- **Microgrids** integrating on-site clean energy solutions, battery storage, and control
- **Distributed generation coupled with carbon-neutral fuel strategies** providing maximum efficiency along a pathway to carbon neutrality
- **Infrastructure as a Service** wrapping energy-related infrastructure into project scope, including EV charging, electrical & mechanical systems, boilers & chillers, process electrification, and others industry-specific applications
- **Automation & building management system upgrades** leveraging Schneider Electric’s EcoStruxure™ IIoT platform for analytics driven operational efficiency

## ➤ Design Build

Based on the conceptual design, and feedback on preferred partners, AlphaStruxure would work with a dedicated team of internal and external resources to advance the technical design and implementation strategy. AlphaStruxure leverages Schneider Electric’s leadership in project management and deployment including EPC 4.0 via Schneider’s wholly owned subsidiary AVEVA.

Today, most EPCs and Owners are dependent on document-centric systems for both their capital projects and operations, sharing information by passing hard copy or electronic documents between people, disciplines, departments and even organizations. Every exchange of information introduces a risk for error and inconsistencies that can propagate through engineering, procurement, construction, and handover, resulting in engineering and scheduling errors, material waste, rework, cost overruns and ultimately delays in start-up and full-scale operation.



EPC 4.0 is an alternative unified, integrated, data-centric system, that keeps information in one place and helps manage change automatically. Leveraging Industry 4.0 technology and work processes, we collaborate and take control of the data reducing the risk for errors, delays, and increased project cost throughout the asset life cycle.

EPC 4.0 allows collaboration on a global scale, digitally and on a unified platform, so the entire process can be traced, tracked, and linked -- from engineering and design, through procurement and construction, to handover and even to operations and maintenance as the foundation for a Digital Twin.

3.0 ALPHASTRUXURE – ENERGY AS A SERVICE



SERVICES CYBERSECURITY	<b>ANALYTICS</b>							
	MicroGrid Advisor	Power Advisor	Asset Advisor	Unified Operations Center	IT Advisor	AVEVA Predictive Analytics	Machine Advisor	AVEVA Unified Supply Chain
	<b>AUTOMATION</b>							
	EcoStruxure Grid	EcoStruxure Power	EcoStruxure Building	EcoStruxure IT	EcoStruxure Plant	EcoStruxure Machine		

When an engineer has to make a change, instead of P&IDs needing to be updated and reissued manually, instead of equipment datasheets on different systems, instead of out-of-date piping and equipment specs getting sent to suppliers, all lists and datasheets are aligned with 3D models and schematics on a Digital Twin – a digital version of the real-world, physical asset.

In addition to EPC 4.0, Schneider Electric’s industry-leading solutions for analytics and automation support procurement, project management, deployment, and ongoing optimization.

Regarding project delivery, AlphaStruxure works with a preferred partner, Canacre, to build out a real estate, GIS and permitting analysis that is then used to direct all of the front-end work to facilitate the installation team’s scope.



Regarding installation, AlphaStruxure is currently working with Faith Technologies on a portfolio of small microgrids for a healthcare customer, leveraging their ability to work in every jurisdiction in the US and Canada. For a fleet electrification microgrid in Maryland, ASX is working with M.A. Mortenson, an EPC based in the mid-west with experience in commercial and renewable energy projects. Our team is flexible and believes commitment to safety, quality and the local communities are paramount to delivering an exceptional customer experience. We are prepared to solicit and work with the most qualified EPC companies for the SAS project understanding that there are usually geographic and/or sector specialists who have a deep bench strength in the local labor market for the type of work proposed.

3.0 ALPHASTRUXURE – ENERGY AS A SERVICE

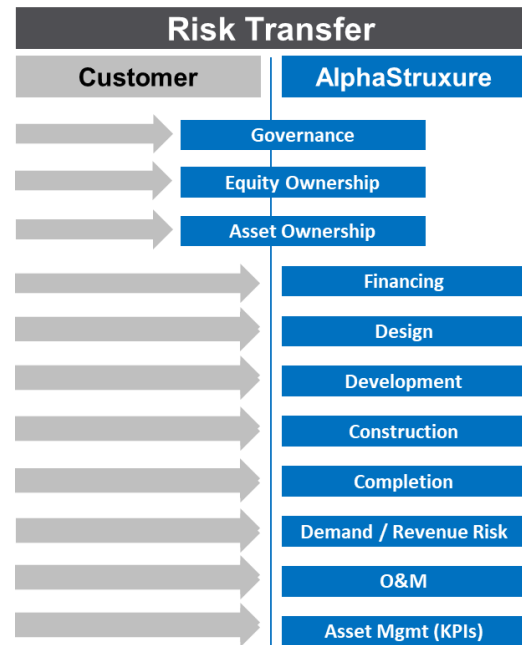
## ➤ Finance & Own

One of the advantages of The Carlyle Group as a parent company is the ability to draw on their capabilities regarding contract structuring and financing. Just as AlphaStruxure offers flexibility regarding technical design (i.e., scope, phasing, level of resilience, initial and future technology modernization options) and project structure, we can also provide optionality in our Energy Services Agreement to meet specific performance requirements. Ultimately, the goal is to create a flexible and economic structure that compensates each counterparty for the appropriate risk/reward ratio. There are several pricing concepts to evaluate depending on the jurisdiction and energy market policies and regulation. Similar structures can be used for on-site energy systems and microgrids, as well as charging infrastructure:

A fixed approach would equate to having regular capacity-based payments over the contract period – equivalent to a lease payment – proportional to the installed capacity of the equipment. This approach would provide a high degree of confidence in short, medium, and long-term project costs.

A variable approach could include a consumption-based payment (e.g. per kWh of electricity used) that would incentivize desired performance at the facility operational level, facilitating a payment structure that is tied to how the infrastructure is utilized.

A hybrid approach would incorporate both a lease and consumption-based payment that could support multiple objective and key results metrics.



## ➤ Operate & Maintain

AlphaStruxure is a long-term investor in energy and infrastructure assets. It is our approach to be a turn-key partner for our customers to solve their energy and climate challenges. To that end, we have developed a comprehensive Network Operating Center platform that leverages the Schneider Electric digital architecture and backbone.