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<th>Docket Number:</th>
<th>20-IEPR-04</th>
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<td>Project Title:</td>
<td>Microgrids</td>
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<td>TN #:</td>
<td>233757</td>
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<tr>
<td>Document Title:</td>
<td>Presentation - Delivering Energy as a Service Decentralized Digitized</td>
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<tr>
<td>Description:</td>
<td>S2 2C. Juan Macias, AlphaStruxure</td>
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<tr>
<td>Filer:</td>
<td>Raquel Kravitz</td>
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<td>Organization:</td>
<td>Energy Commission</td>
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<td>7/6/2020</td>
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July 2020
Energy as a Service – Microgrid & Advanced Infrastructure

AlphaStruxure delivers *Energy as a Service microgrids* providing decentralized, digitized and decarbonized energy solutions optimized for the customer’s objectives while reducing risk and eliminating upfront capital outlay.

**Drivers**
- Reliability & Resilience
- Sustainability
- Energy Cost
- Capital Constraints

**Segments**
- C&I businesses
- Electric Fleet Operators
- M.U.S.H.\(^{(1)}\)
- Food & Beverage (CPG & Indoor Ag)
- Airports

**Microgrid**

**Generation**
- Fuel Cells
- Combined Heat & Power
- Solar
- Biomass Generation

**Integrating Technology**
- Electrical Hardware
- Energy Mgmt. System
- Storage

**Advanced Infrastructure & Energy Loads**
- EV fleets
- EV chargers
- Data Center Infra.

(1) M.U.S.H. – Municipalities, Schools, Hospitals, Universities
AlphaStruxure tailors a microgrid & infrastructure solution to meet customer needs.

### Customer Type & Needs

<table>
<thead>
<tr>
<th>Feature</th>
<th>Single Asset</th>
<th>Multi-DER</th>
<th>DER + Infrastructure</th>
<th>Complex DER + Infrastructure</th>
<th>Transformational</th>
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<tbody>
<tr>
<td>Cost savings &amp; predictability</td>
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<td>Sustainability</td>
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<td>Reliability</td>
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<td>Resilience</td>
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<tr>
<td>Associated Infrastructure</td>
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Tailored Energy & Infrastructure Solution

- All solutions use Schneider integrating technology and are managed by cloud-based NOC
- Generating assets and associated infrastructure are selected and sized to meet specific customer needs
- Tailored approach maximizes customer value creation
CUSTOMER OUTCOMES

- Cost Savings & Predictability
- Resilience & Reliability
- Sustainability
- Risk Management
- Advanced Energy Management
- 3rd Party Ownership

ENERGY AS A SERVICE combines energy and financial solutions, wrapped in best-in-class project execution and operation – optimized by end-to-end digitization.
We believe...

- EaaS is a *tool* and *capital source* to meet the State’s policy objectives
- EaaS can enable *speed* and *scale* of resilient, sustainable and cost effective energy
- EaaS can be used by both C&I and government entities to achieve goals – both at large sites and across ‘fleets’ of smaller facilities

We recommend...

- **Accelerating EaaS opportunities**
  - Including an EaaS option in procurements, e.g. municipalities, universities, hospitals, state agencies, CCAs
  - Treating EaaS as a multiplier for microgrid grants
  - Leveraging CCAs for EaaS deployment – the State could backstop CCAs to enable them to sign PPAs for large microgrid project

- **Removing barriers to EaaS deployment**
  - Eliminating financial penalties for using behind-the-meter approaches, e.g. Departing Load Charges (DLCs)
  - Clarifying multiple party ownership rules for microgrids
  - Streamlining across Right-of-Way work / “over-the-fence” work