

# MICROGRID KNOWLEDGE™

2023 CONFERENCE

# LIGHTS ON!

May 16-17, 2023 | Anaheim, CA

OWNED &  
PRODUCED BY:



PRESENTED BY:

MICROGRID  
KNOWLEDGE™

# Current EV Charging Microgrid Projects

	<b>KnightSwift</b>	<b>Oakland V2B</b>	<b>Brookville</b>	<b>VTA</b>
<b>Application</b>	Long Haul Trucking	Transit Buses/Critical Facilities	Transit Buses	Transit Buses
<b>Location</b>	CA	CA	MD	CA
<b>Partners</b>	PACCAR	Center for Transportation and the Environment, Alameda County Transit, The Mobility House, New Flyer, City of Oakland	AlphaStruxure	Scale Microgrids, Proterra
<b>Funding</b>	Private Capital, DOE SuperTruck3	CEC Grant	Energy as a Service	CEC Grant
<b>Number of Vehicles</b>	20	3	70	20
<b>DER</b>	PV/Battery Energy Storage/Backup Gen	PV/Backup Generator	PV/Battery Energy Storage/Backup Gen	PV/Battery Energy Storage/Backup Gen
<b>Controls</b>	<ul style="list-style-type: none"> <li>• Microgrid Controller</li> <li>• Charge Management System</li> <li>• Power System Monitoring</li> </ul>	<ul style="list-style-type: none"> <li>• Microgrid Controller</li> <li>• Charge Management System</li> </ul>	<ul style="list-style-type: none"> <li>• Microgrid Controller</li> <li>• Charge Management System</li> <li>• Power System Monitoring</li> <li>• SCADA</li> </ul>	<ul style="list-style-type: none"> <li>• Microgrid Controller</li> <li>• Charge Management System</li> </ul>
<b>Project Status</b>	Engineering/Permitting/Procurement	Engineering	Operational	Engineering

# KnightSwift Project

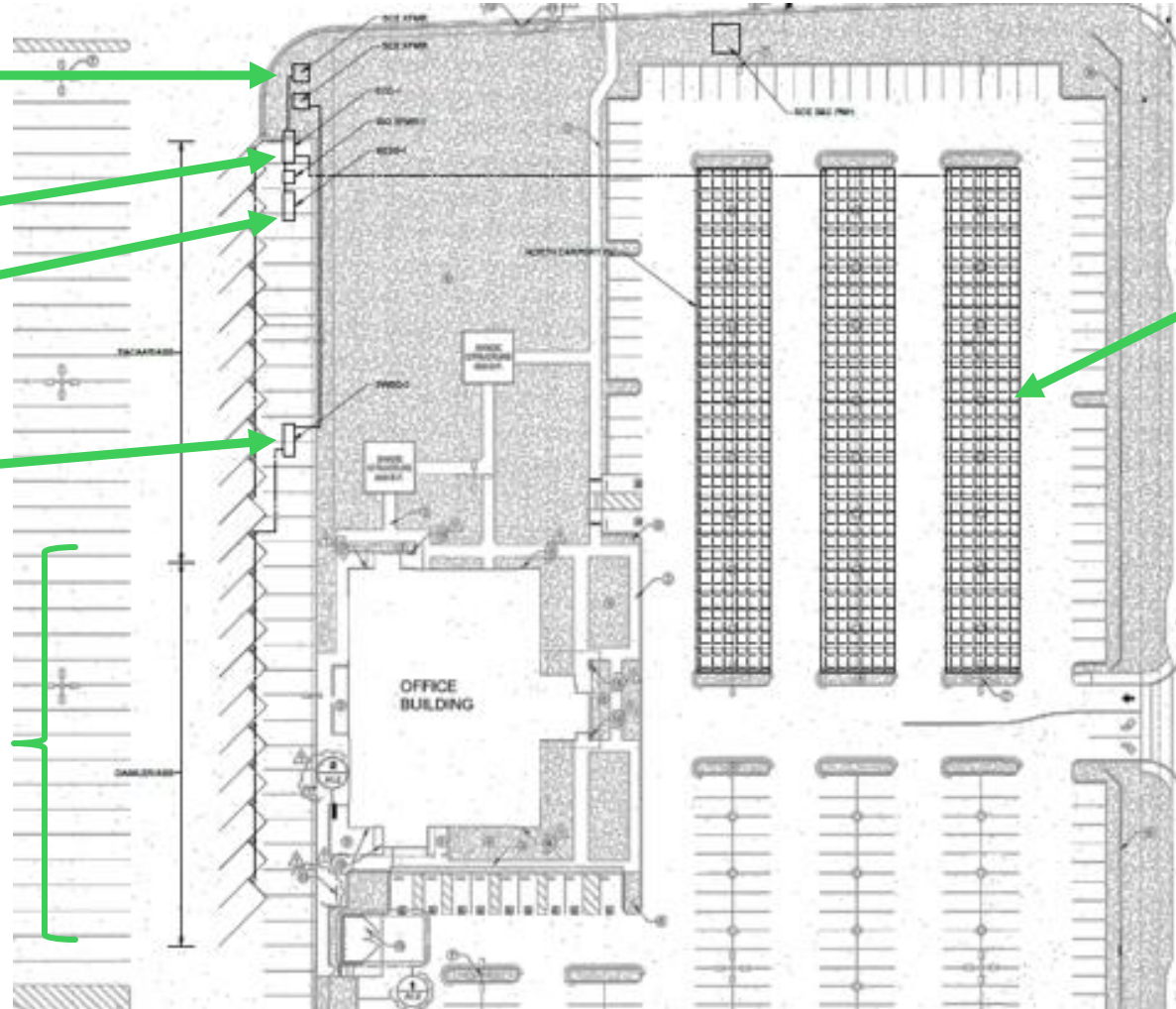
New Electric Service

Energy Control Center

BESS  
500 kW / 1000 kWh

Standard Switchboard

EV Chargers

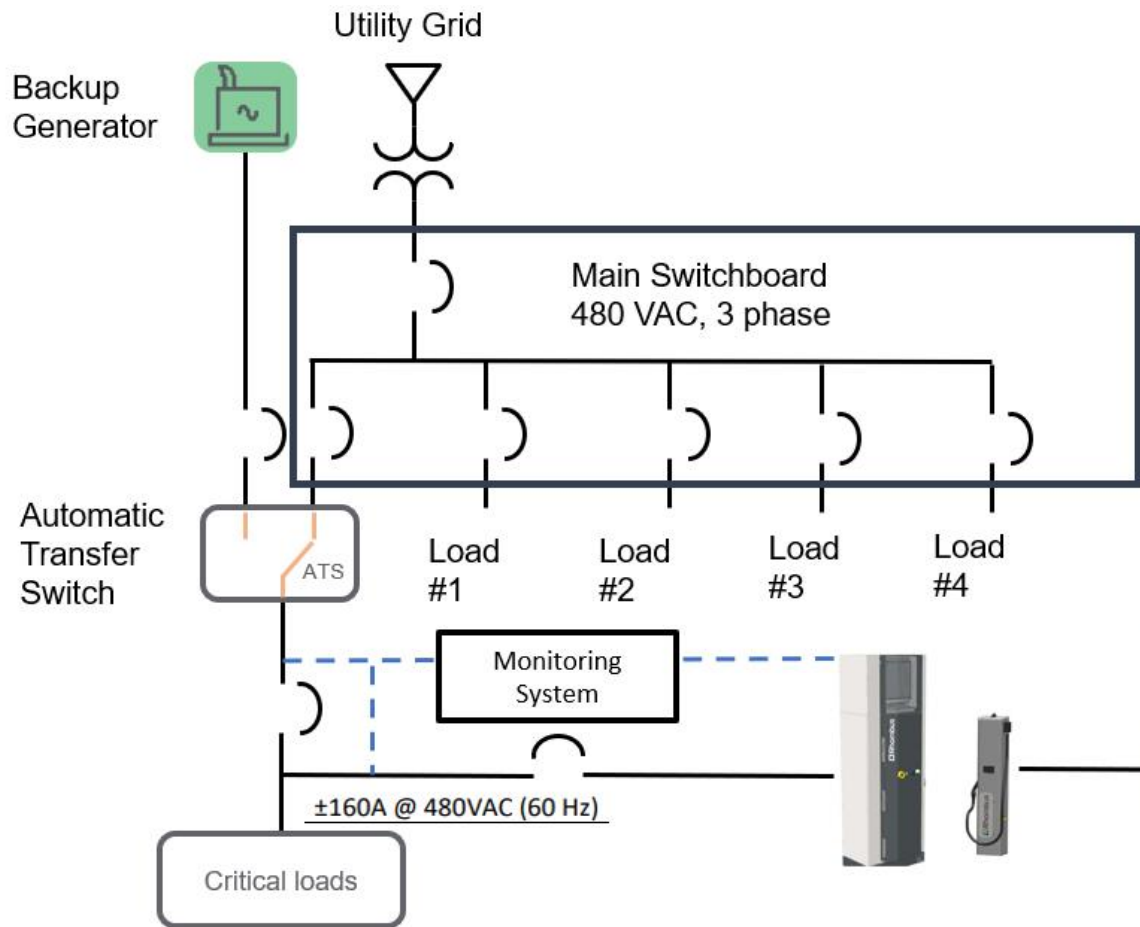


500 kW PV System

Life Is On

Schneider Electric

# Oakland V2B



- Three Sites:
- Test Stand
  - Transit Maintenance Building
  - Community Center





# EaaS fleet electrification solution

## Brookville Smart Energy Bus Depot visualization



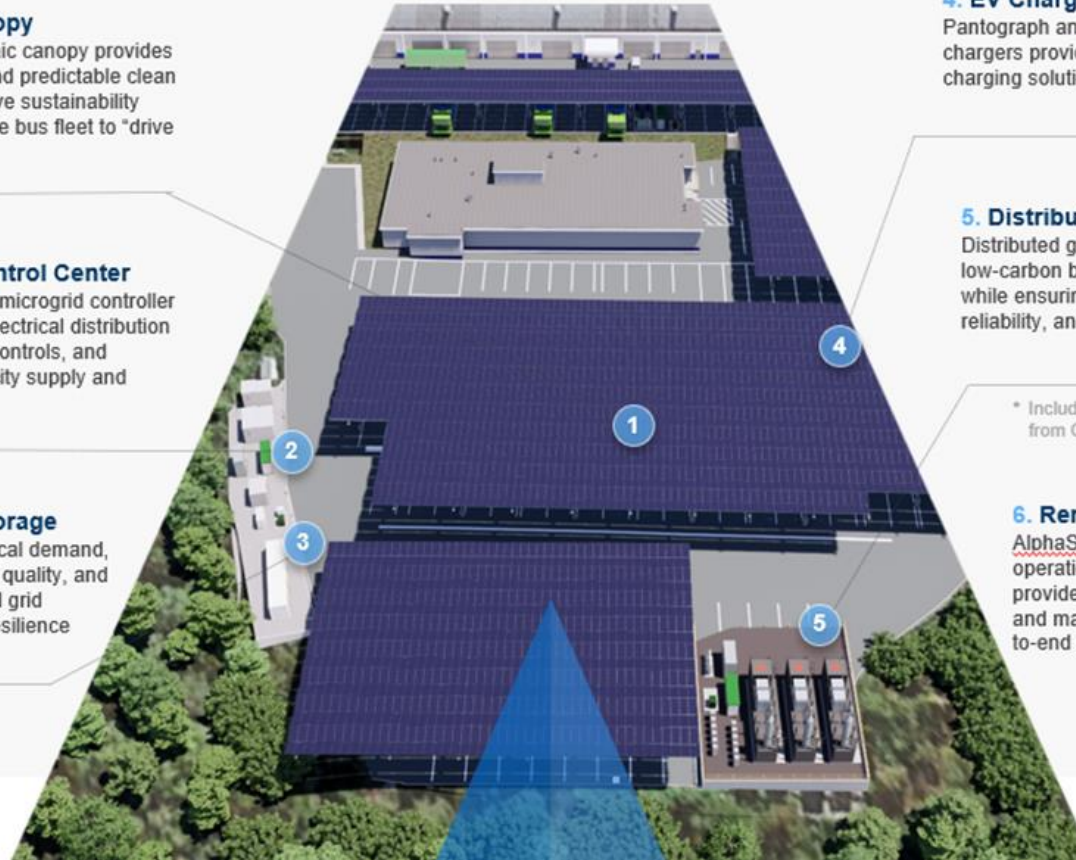
**1. Solar Canopy**  
Solar photovoltaic canopy provides cost-effective and predictable clean energy to achieve sustainability goals and enable bus fleet to "drive on sunshine"



**2. Energy Control Center**  
Industry-leading microgrid controller that integrates electrical distribution equipment and controls, and balances electricity supply and demand



**3. Battery Storage**  
Balances electrical demand, improves power quality, and supports optimal grid utilization and resilience



**4. EV Chargers**  
Pantograph and multi-dispenser chargers provides comprehensive charging solution for eBus fleet



**5. Distributed generation**  
Distributed generation provides low-carbon baseload energy\* while ensuring resilience, reliability, and guaranteed uptime



\* Includes ability to incorporate renewable natural gas (RNG) from County and State waste streams

**6. Remote Control**  
AlphaStruxure network operations center (NOC) provides digital optimization and management of the end-to-end system

