Delivering a Microgrid for Energy Resilience to the Nation’s Greenest Port

A Port of Long Beach Case Study

Gregg Morasca – Schneider Electric
Port of Long Beach

- Second largest US seaport
- 3,200 Acres
- 25 miles of waterfront
- 80 berths
- Generates $100B in trade
- Supports $2.6M US jobs
- Landlord – builds and leases
- Tenants are separately metered by SCE
Energy Use and Resilience

- Clean Air Action Plan
- Demand will quadruple
- Outages are very costly
- Resilience by design

Port-Related Sources of Air Emissions

- Ships
- Trucks
- Harbor Craft
- Cargo-Handling Equipment
- Locomotives
POLB Microgrid

- At Joint Command and Control Center
- $5M state grant
- Completion early 2023
POLB Microgrid

- **300KW Solar Carport**
- **330kW/670kWh** stationary BESS
- **250kW/220kWh** mobile BESS
- **Energy Control Center**
POLB/SE Partnership

• History of successful projects with Schneider Electric including shore power

• Mutual commitment during the application process
Optimization Example with Solar and Battery

Utility Charging the BESS

Discharge the BESS

Discharge the BESS

Charging the BESS
WHAT QUESTIONS DO YOU HAVE?
THANK YOU

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Please reference Campus Energy 2020