Modular Microgrids-as-a-Service

June 24, 2020
California’s Public Safety Power Shut off (PSPS) program allows for the major utilities to turn off power during high risk weather in order to avoid fire ignitions.

While necessary for safety, these are detrimental to our community, businesses, and California’s entire economy.

Expect 5-10 PSPS events per year lasting 2-5 days each.
Resiliency: Options for the C&I Sector

HIGH COST/LOW RELIABILITY

DO NOTHING
- Prepare for long duration outages, potentially costing millions in lost revenue or inventory

LOW COST/HIGH RELIABILITY

DIESEL GENERATOR
- Moderate CAPEX
- High OPEX
- Reliability concerns
- Dirty

MODULAR MICROGRID
- Indefinite resiliency
- Multiple backups
- $0 down
- Annual OPEX savings
- Clean
Behind-the-Meter Microgrids

Integrated and controllable distributed energy resources, energy storage, and loads.

Blue sky operation in parallel to the grid. Black sky ‘islanding’ for continuous operation.

Modular and scalable, from a grocery store to a university campus, and everything in between.
Microgrids-as-a-Service

Several options available from a standard ‘power purchase agreement’ (PPA) to an ‘energy services agreement’ (ESA)

• Typically requires $0 down
• Zero operational risk or O&M costs
• Performance guarantees
• Value stacking
  • Demand charge management
  • TOU energy arbitrage
  • Demand response
  • Ancillary services
  • Virtual Power Plant…
Representative Project – Industrial Sector

HOURLY LOAD PROFILE (GRID PARALLEL)

- 4MW PV
- 1MW/4MWH BESS
- 815kW NG

- 95% CO2 REDUCTION
- 100% RESILIENCY
- >10% ANNUAL SAVINGS
A ‘PROFIT CENTER’
• Microgrid provides price protection as utility rates rise
• Utility rates have been increasing by 6-9% per year

A ‘COST CENTER’
• Genset represents capital outlay in year 0 and ongoing annual OPEX expense
THANK YOU

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