



Commercial Facility New York

Phased Building-to-Grid investment planning for an existing commercial / workshop facility

ACTUAL PROJECT - IN PROGRESS

BUILDING Commercial / workshop	LOCATION Capital Region, NY	INITIAL DER 100 kW PV screened	STATUS B2G expansion underway
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Decision Challenge

The owner wanted to determine which building and clean-energy investments should be advanced first - and avoid spending capital on measures that appear attractive in isolation but do not create the best lifecycle value. Recent HVAC, insulation, and lighting changes also meant the original historical baseline needed to be treated carefully.

How the LovEnergy Platform Was Used

The LovEnergy Platform was used to structure the building model, calibrate electricity, demand and gas performance, and compare stacked building-side investment scenarios. **The same workflow is now being expanded to PV interconnection, GSHP, alternative generation, battery storage, flexible loads, grid participation, and a co-optimized phased roadmap.**

BUILDING DATA Bills + building characteristics	MODEL + CALIBRATE Electricity, demand + gas baseline	BUILDING SCREEN Envelope, lighting, HVAC, plug loads + PV	GRID EXPANSION Interconnection, BESS, flex + programs	ROADMAP Co-optimize + sequence
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LovEnergy Platform Capabilities Demonstrated

CALIBRATED BASELINE Uses building and utility information to create a quantitative baseline before technology recommendations are finalized.	STACKED SCENARIOS Compares how multiple measures interact instead of treating each efficiency or DER investment as a stand-alone project.	EXPANDABLE B2G WORKFLOW Extends the same model from building optimization into interconnection, storage, flexible load and grid-participation analysis.
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Current Decision Status

WORKSTREAM	CURRENT SIGNAL	DATA / VALIDATION ISSUE	NEXT DECISION
Building baseline	Calibrated model developed	Original bills pre-date some HVAC / insulation upgrades	Recalibrate once sufficient post-upgrade data are available.
Rooftop solar PV	100 kW initial case; strongest first-screen economics	Usable roof area and utility interconnection need confirmation	Refine system size and verify interconnection pathway.
B2G expansion	GSHP, fuel cell, BESS, flexible load + grid programs	Requires consistent comparison and updated site assumptions	Co-optimize into an updated phased investment roadmap.

Client Value and Building-to-Grid Decision

WHY THE STUDY IS PHASED - Recent upgrades can materially change economics derived from older billing data. - Roof geometry and interconnection can constrain an apparently attractive PV case.	OWNER / MANAGER VALUE Provides a structured basis to prioritize limited capital and avoid premature DER or electrification commitments before the baseline and interconnection pathway are validated. BUILDING-TO-GRID DECISION Refresh the baseline, validate solar interconnection, then compare building- and grid-side opportunities in one phased roadmap.
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