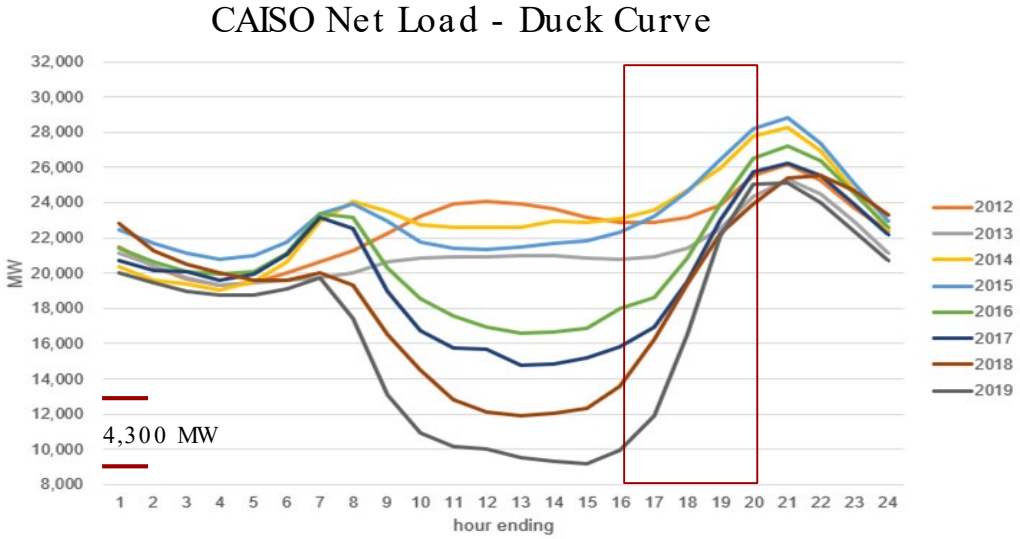
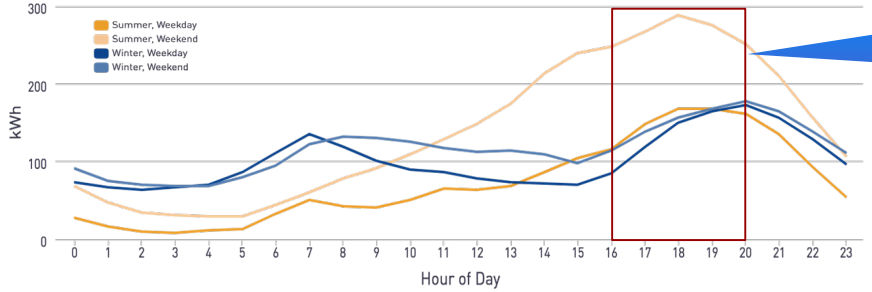
Case Study 1:

PG&E Residential Pay-for-Performance



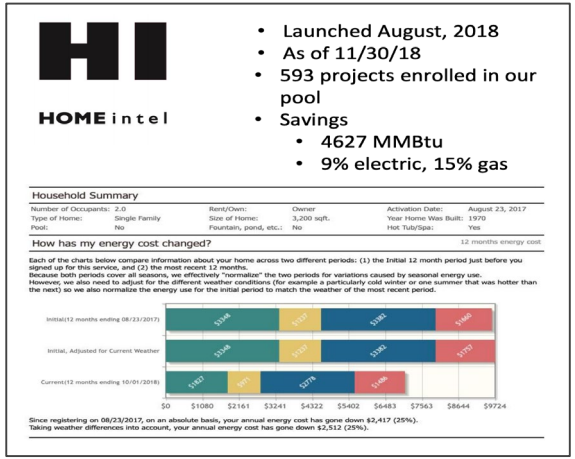


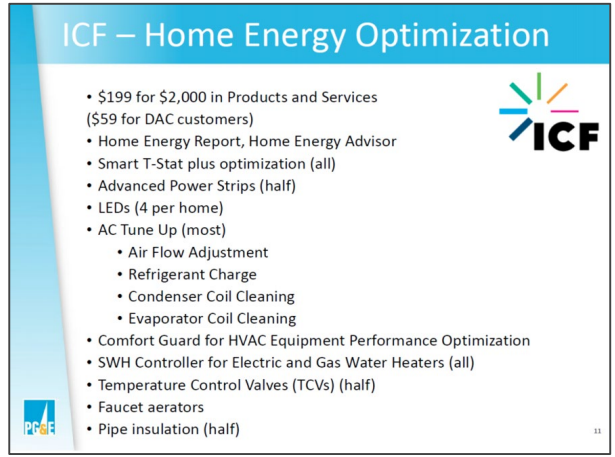
3x P4P Kicker

RECURVE

Case Study 1:

Enabling Competitive Markets Drives Innovation





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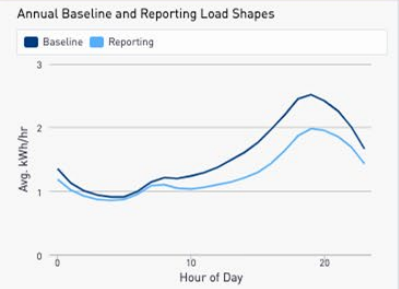
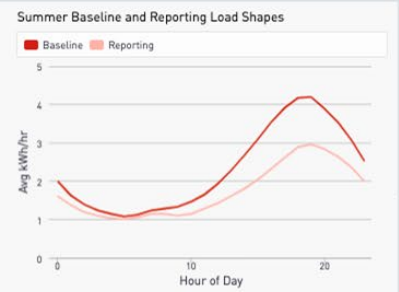
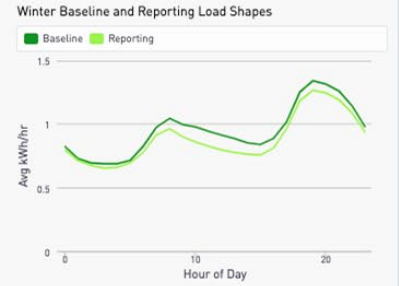
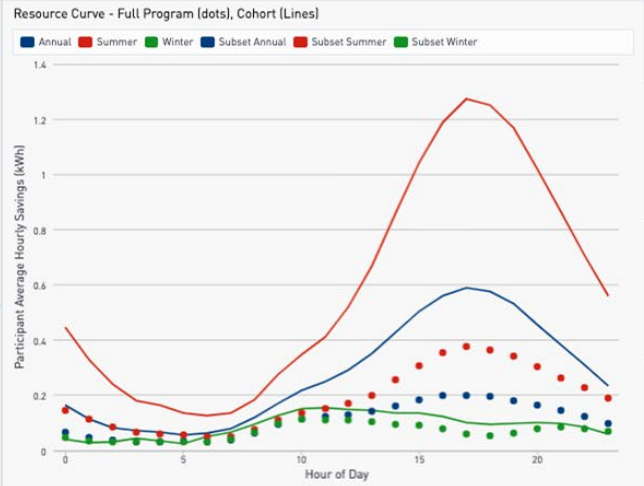
23% of Projects

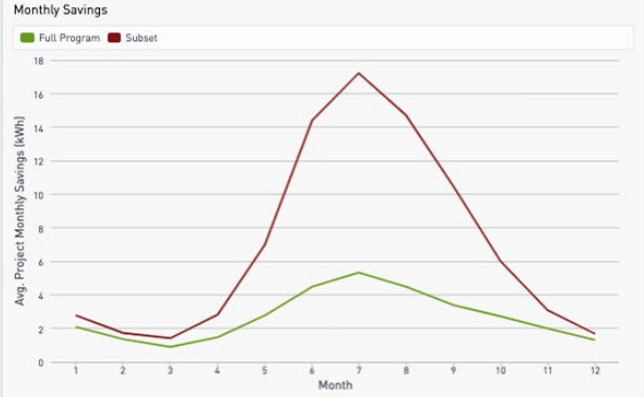
FILTERS (5) | 3_Summer_Peak_kWh Top Quartile | 5_Summer_Shoulder_Ratio Top Half | Climate_Zone 4 | Year 2020



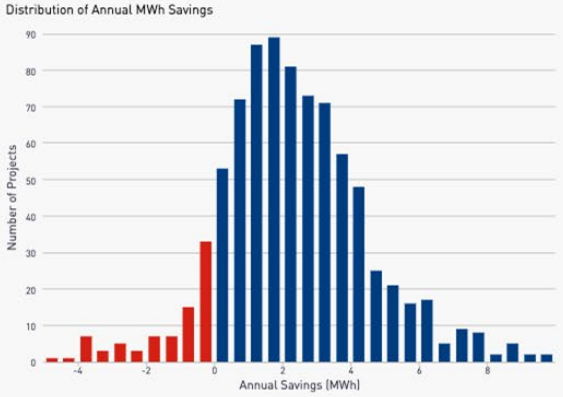








Program Average	Subset	
965 kWh Annual Participant Savings	2,435 kWh Annual Participant Savings	Percent of All Projects
11 % Annual kWh Savings	18 % Annual kWh Savings	30 % Summer Peak kWh Savings
213 kWh Summer Peak Participant Savings	721 kWh Summer Peak Participant Savings	9 % % Negative Savers

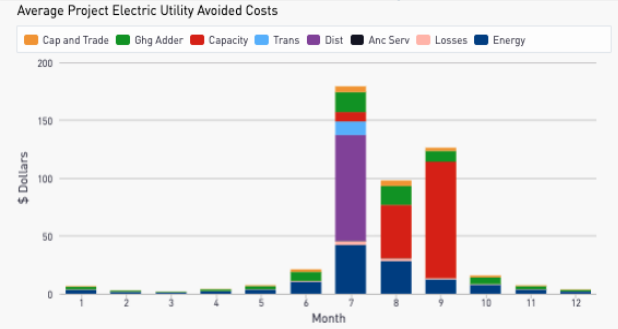


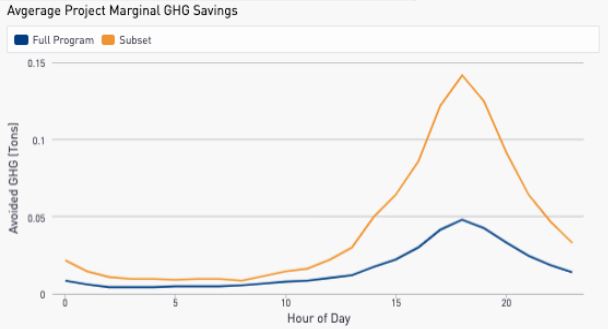
2.5x Greater Savings

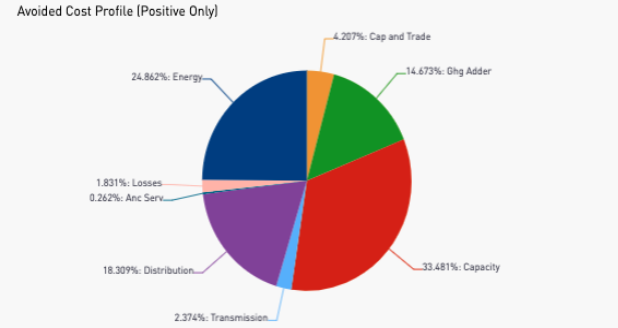
70% Fewer Negatives

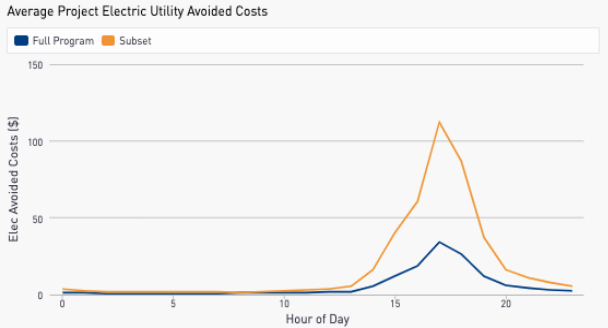
23% of Projects

FILTERS (5) 3_Summer_Peak_kWh Top Quartile 5_Summer_Shoulder_Ratio Top Half Climate_Zone 4 Year 2020









Program Average	Subset
.397 Tons Project Annual GHG Savings From Electricity	1.057 Tons Project Annual GHG Savings From Electricity
.41 Tons/MWh Avoided GHG per MWh Savings	.43 Tons/MWh Avoided GHG per MWh Savings
$146.97 Project Annual Electric Utility Avoided Costs	$446.73 Project Annual Electric Utility Avoided Costs
$ .152/kWh $ Avoided Cost per kWh Savings	$ .183/kWh $ Avoided Cost per kWh Savings

2.7x Avoided GhGs

3x Avoided Cost

Cap and Trade | Ghg Adder | Capacity | Transmission | Distribution | Ancillary Services | Losses | Energy

Case Study 2:

New York Pay-for-Performance Programs

Aug-19	Con Edison RFP launched
Sep-19	National Grid stakeholder meeting
Oct-19	Con Edison Portfolio Manager awards made
Nov-19	National Grid RFP launch
Jan-20	Con Edison Portfolio Managers in market
Jan-20	National Grid Portfolio Manager awards made
Q1 2020	PSEG LI RFP launch
Q2 2020	National Grid Portfolio Managers in market

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PSEG LONG ISLAND

nationalgrid

conEdison

End-Use Customers	Portfolio Managers	Utilities
• Increased confidence in savings • Access to a broader set of solutions and services, including finance solutions with little or no upfront contributions • Longer and more comprehensive relationships with solution providers	• Flexibility to design services around what customers want • Minimized transaction costs and administrative burden • Multi-year cash flows that can support finance solutions and add-on services • Portfolio level performance to manage risk and achieve scale	• Elevate EE as a utility resource, with potential temporal and locational impacts • Align incentive structure to engage solution providers in the management of performance risk • Longer term visibility into system impacts of EE • Resource viewed as portfolios, not projects

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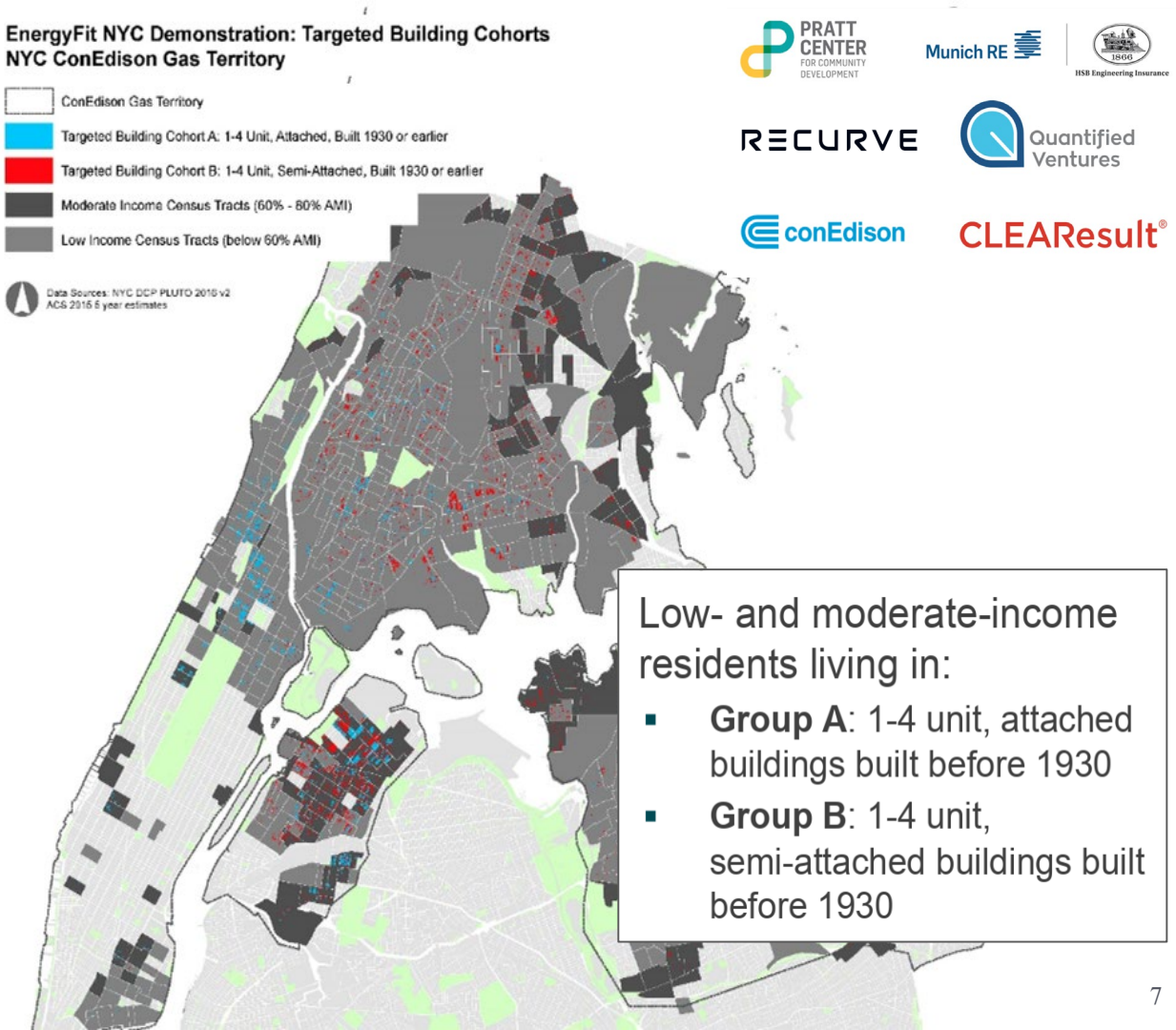
Case Study 3:

ConEd
EnergyFit
Low Income P4P
NY Rev Demo

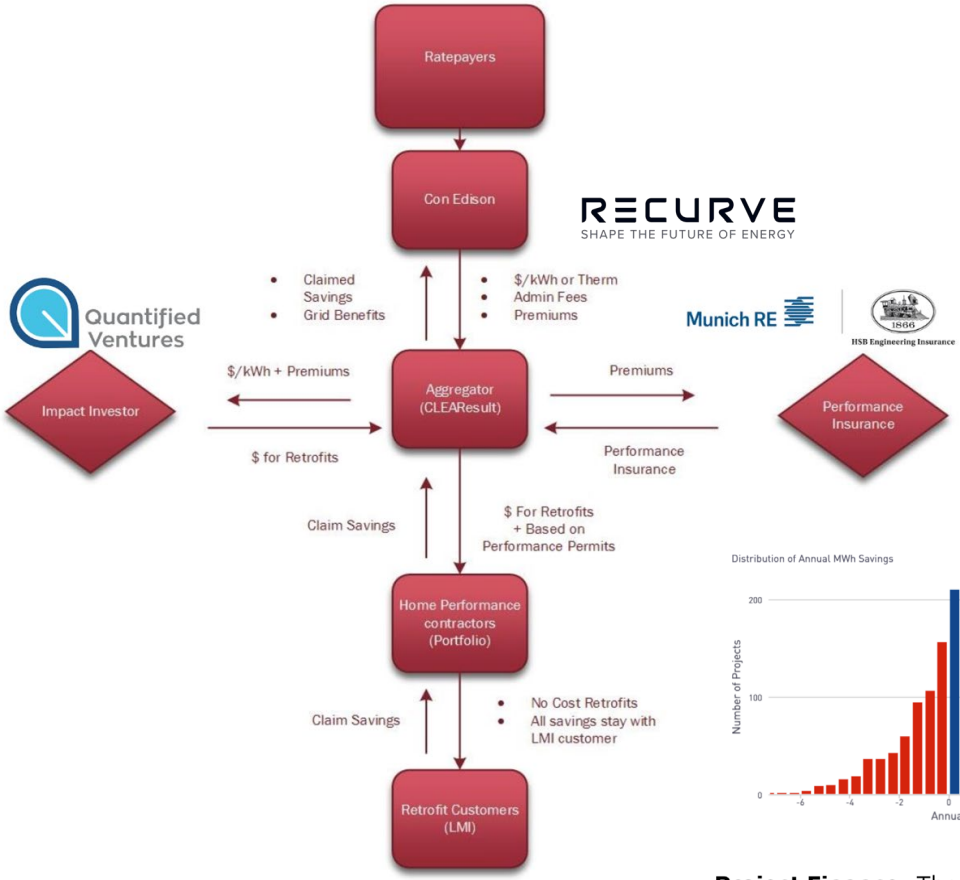


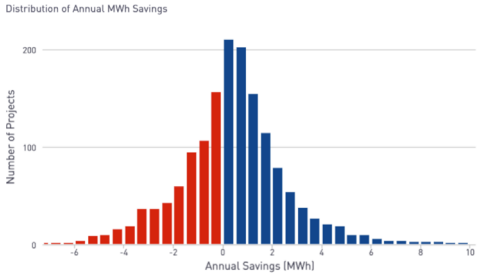
Low- and moderate-income residents living in:

- **Group A**: 1-4 unit, attached buildings built before 1930
- **Group B**: 1-4 unit, semi-attached buildings built before 1930

Case Study 3:

Using Private Capital to Provide Low Income Energy Efficiency





Project Finance: The long-term financing of projects based upon projected cash flows rather than the balance sheets of its sponsors.

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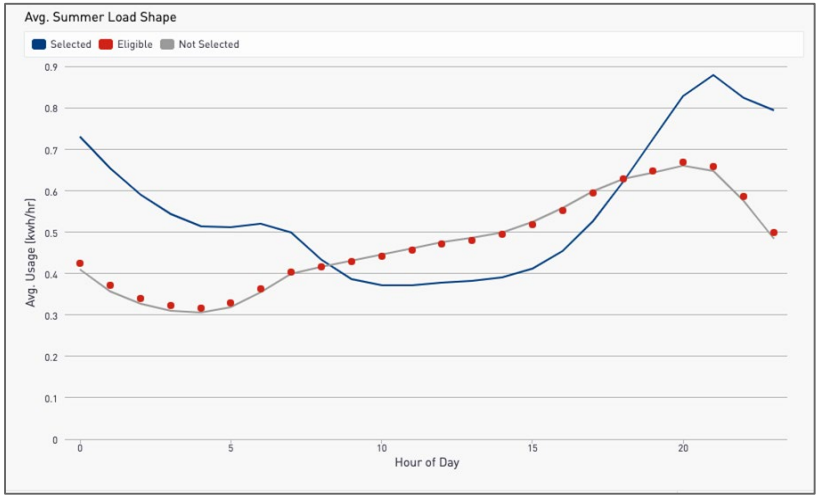
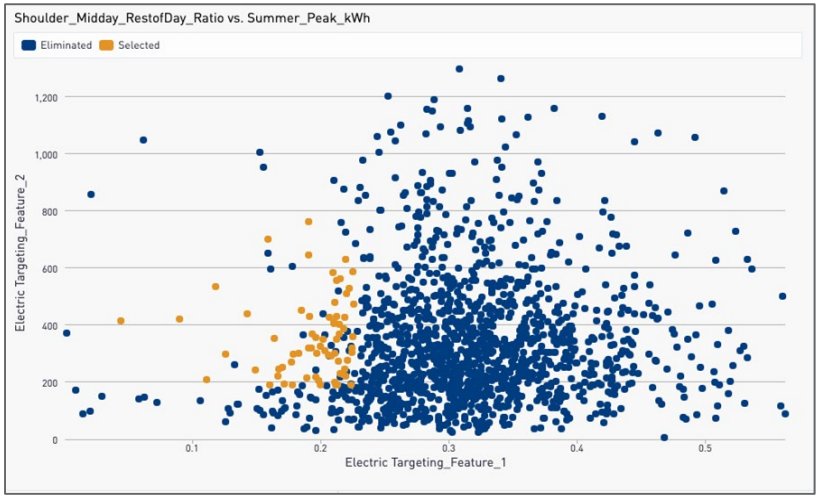
Case Study 4:

EBCE / Joint CCA Solar+Storage Targeting and Grid Integration





- Storage Customers Targeting
- Integration into EBCE Forecast
- Resource Adequacy for BTM Flexibility

Storage Candidate

Ineligible

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Grid Integrated Buildings - Data Tells the Story

- Load Shifting

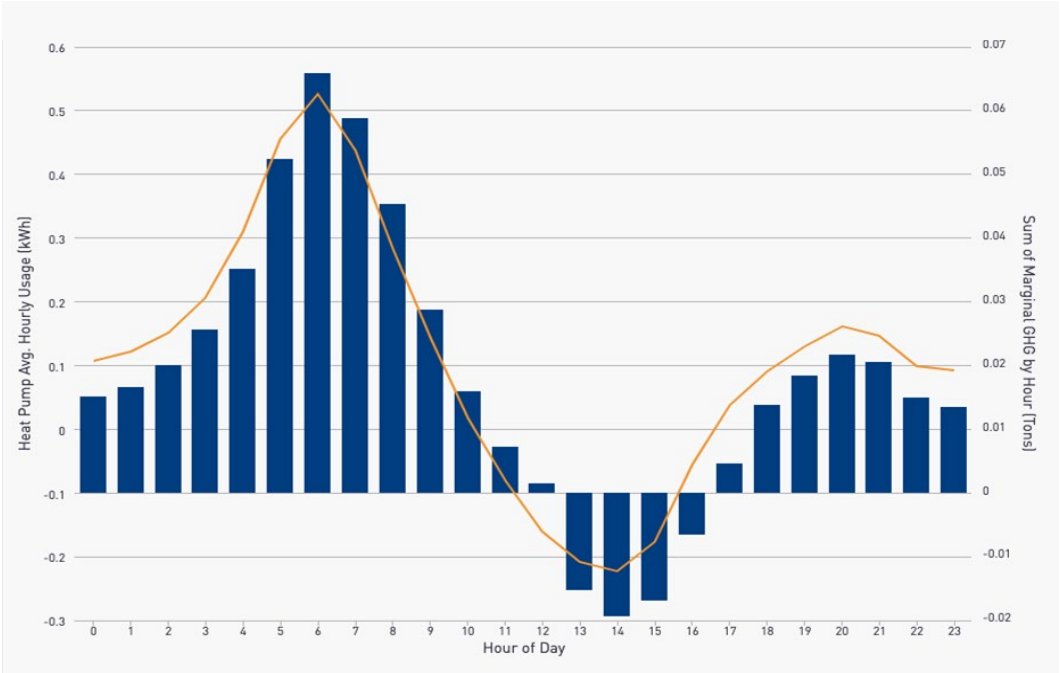
  (e.g., Storage, DR)

- Load Shaping

  (e.g., EE, Solar)

- Load Balancing

  (e.g., EVs, Heat Pumps)



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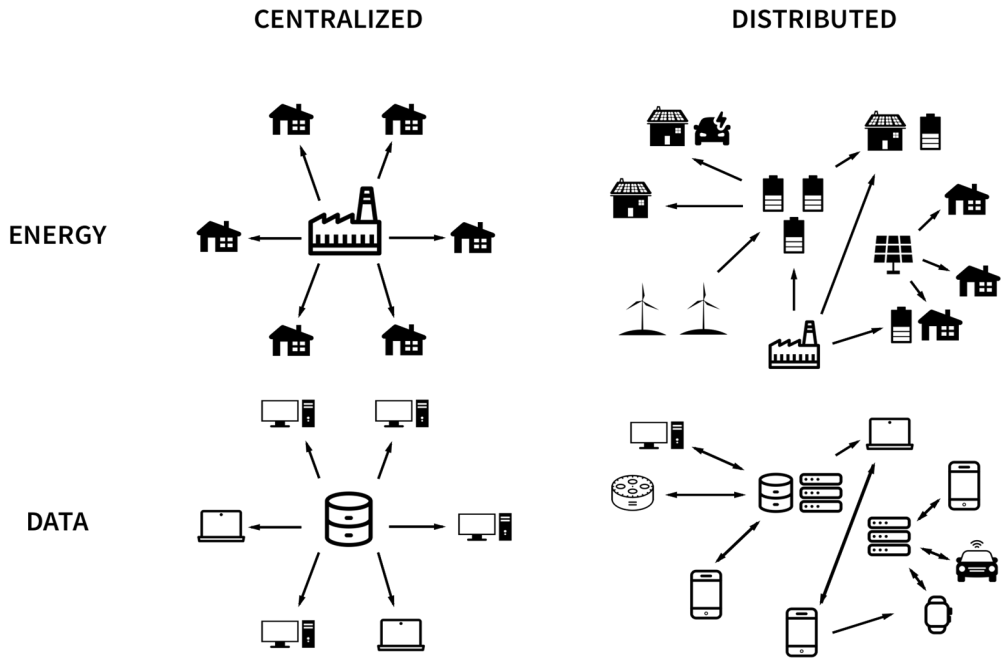
Distributed Grid = Distributed Data = Distributed Flexibility



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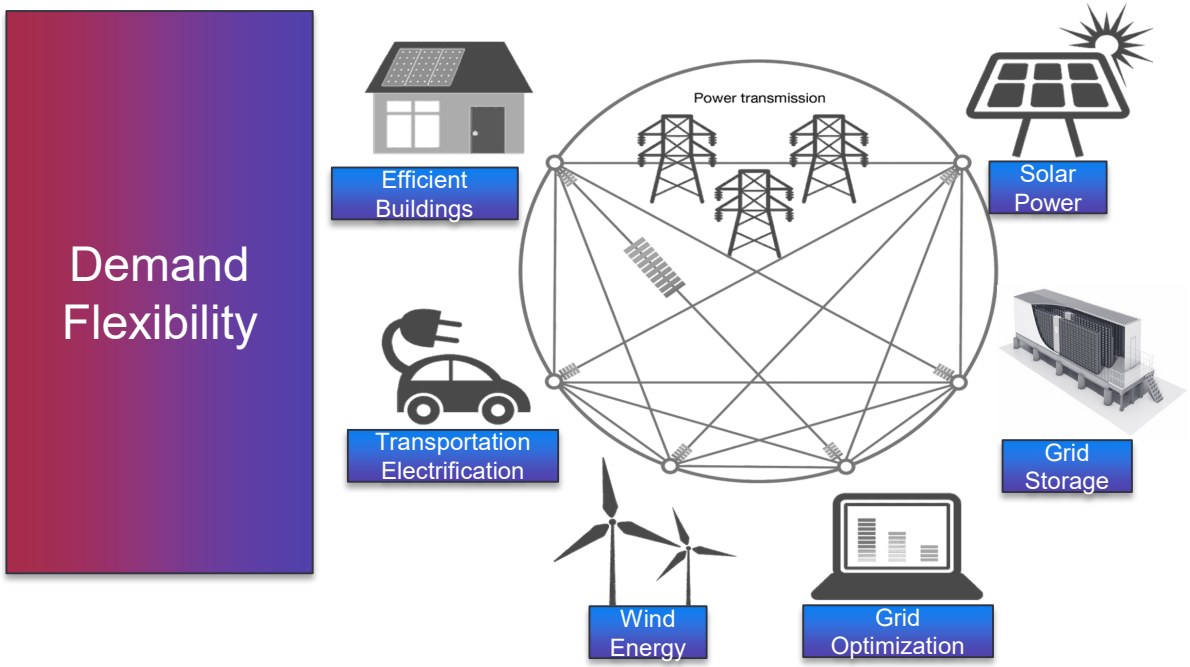
Demand Flexibility Anchors the Decarbonized Grid



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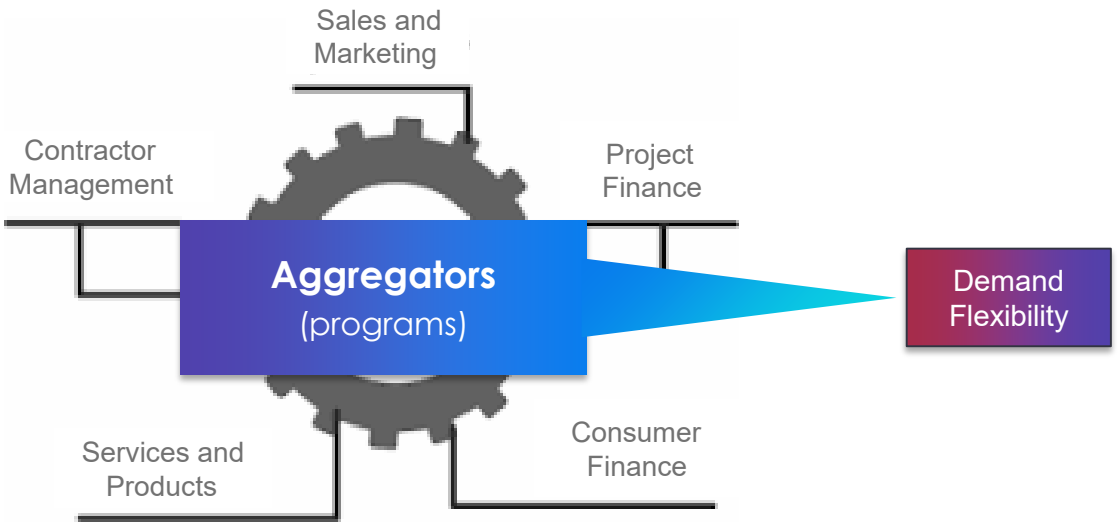
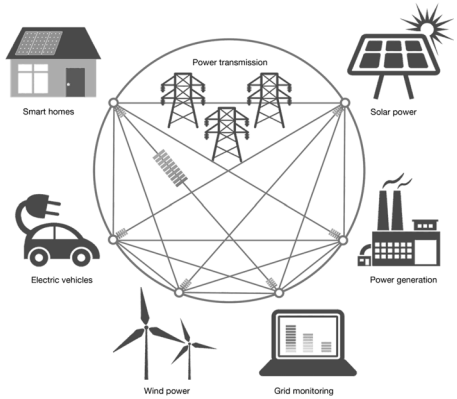
Recurve Makes the Market for Demand Flexibility

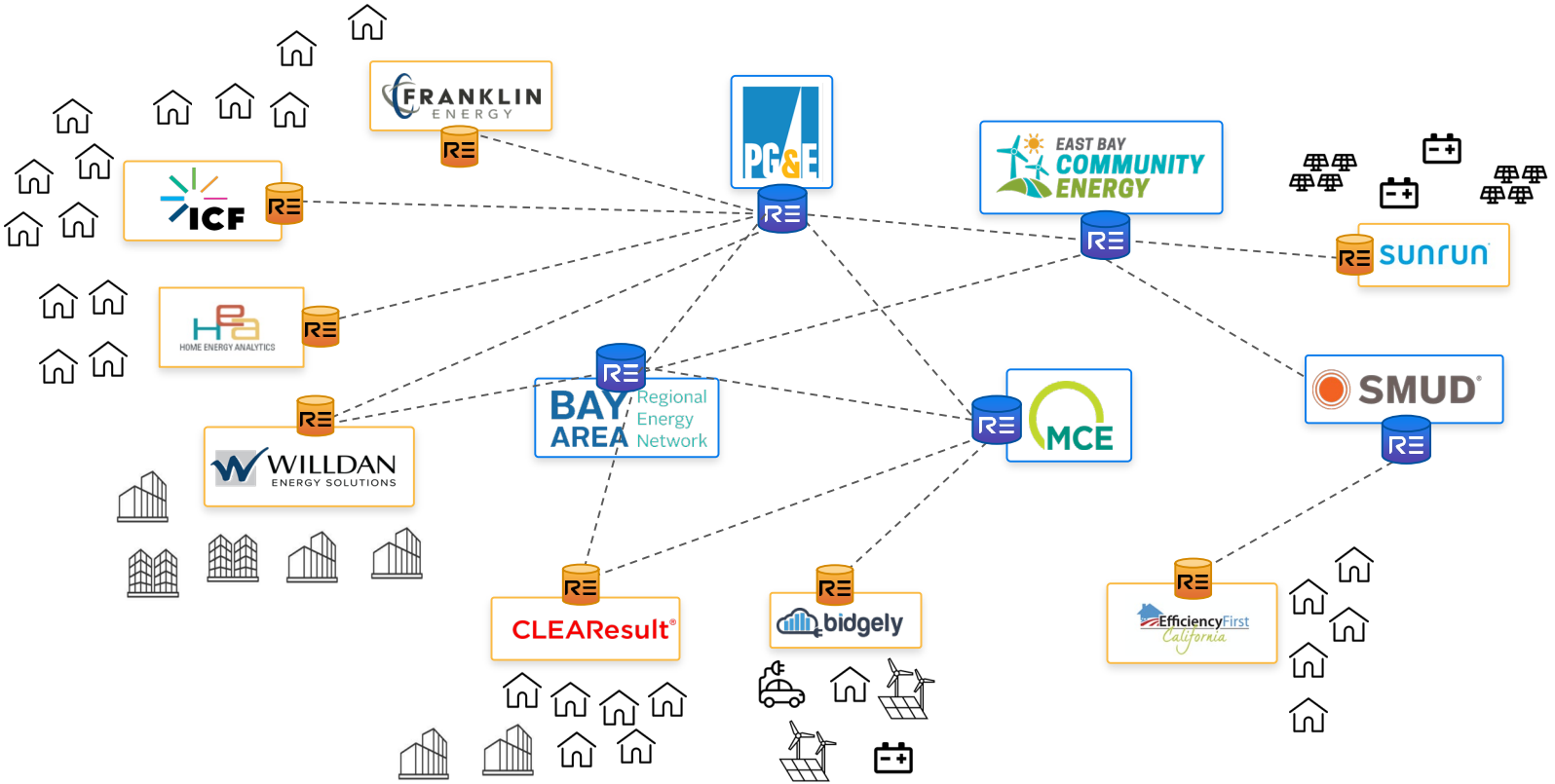




BUSINESS MODELS

Savings Comfort Health

Grid Integrated Buildings are Demand Flexibility Assets



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Standard Weights and Measures

- Standard M&V Calculation Methods
- Monthly, Daily, and Hourly
- Public Stakeholders Empirical Process
- www.CalTRACK.org

- Python CalTRACK Engine
- Open Source Apache 2.0
- Contributed to Linux Foundation
- Code Repo: https://goo.gl/qFdW4P

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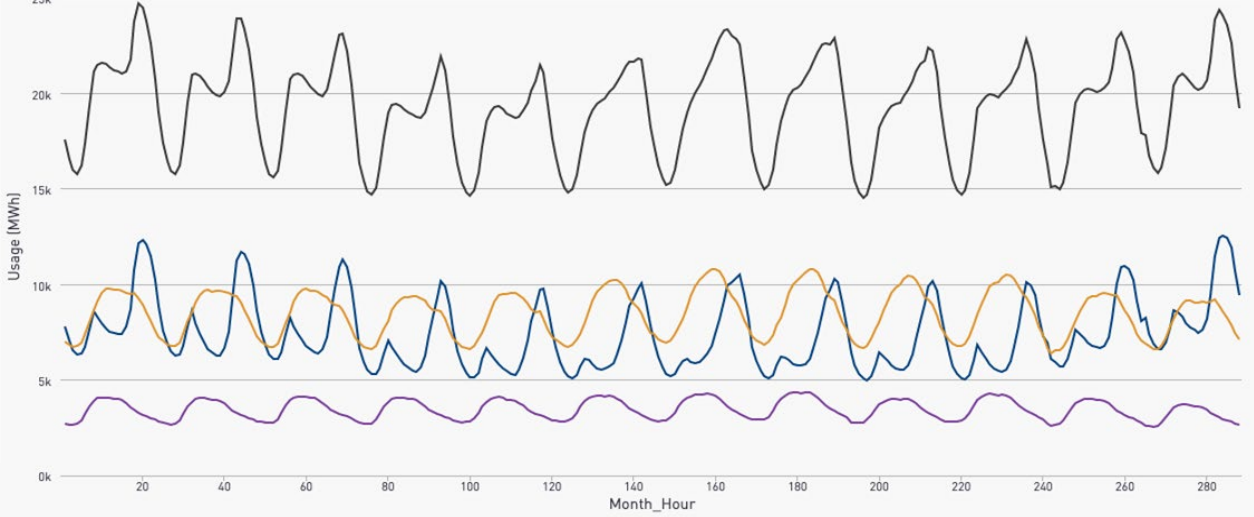
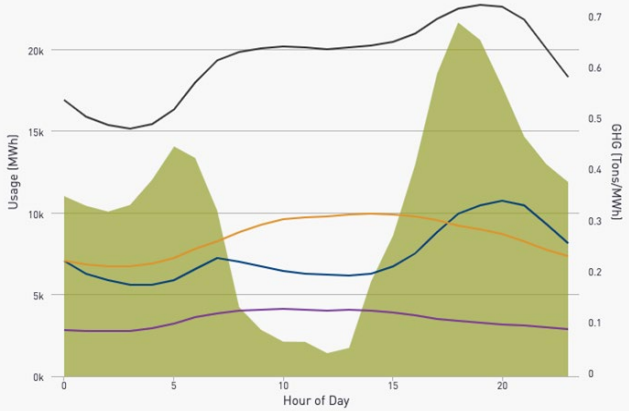
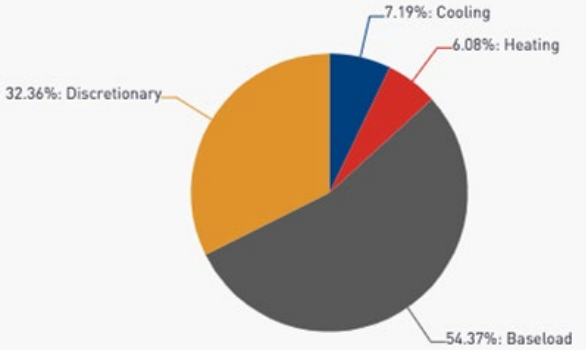
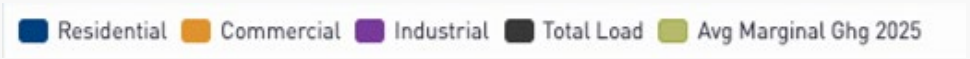
Resource Planning

Population Grid Analytics to Design, Forecast, and Procure Demand Side Resources









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Fleet Management

Tools for Behind the Meter Demand Flexibility

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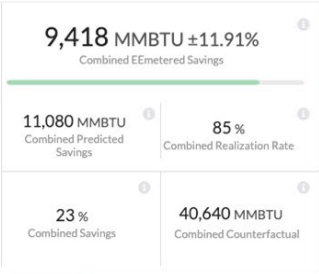
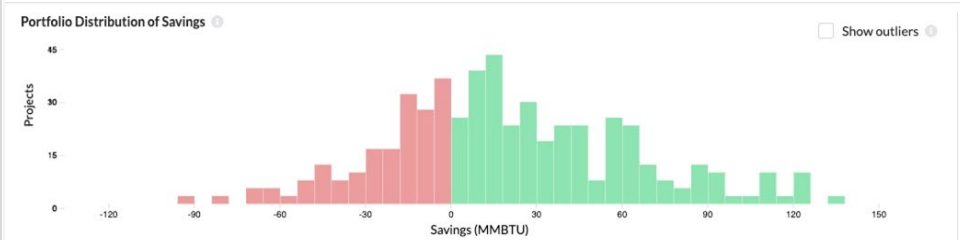
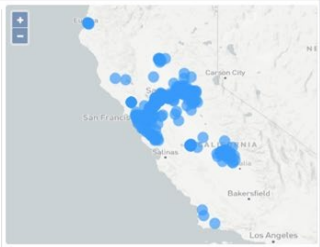
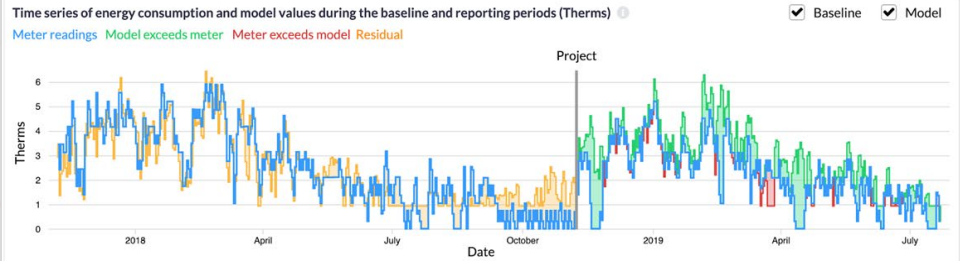
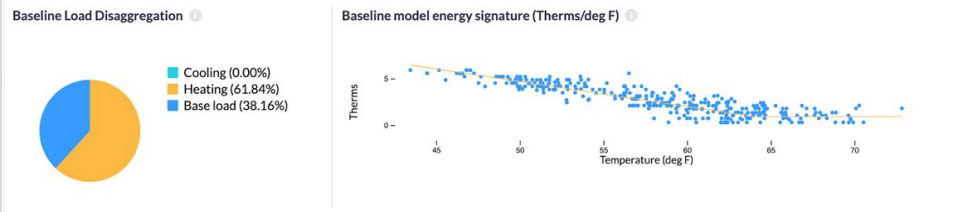




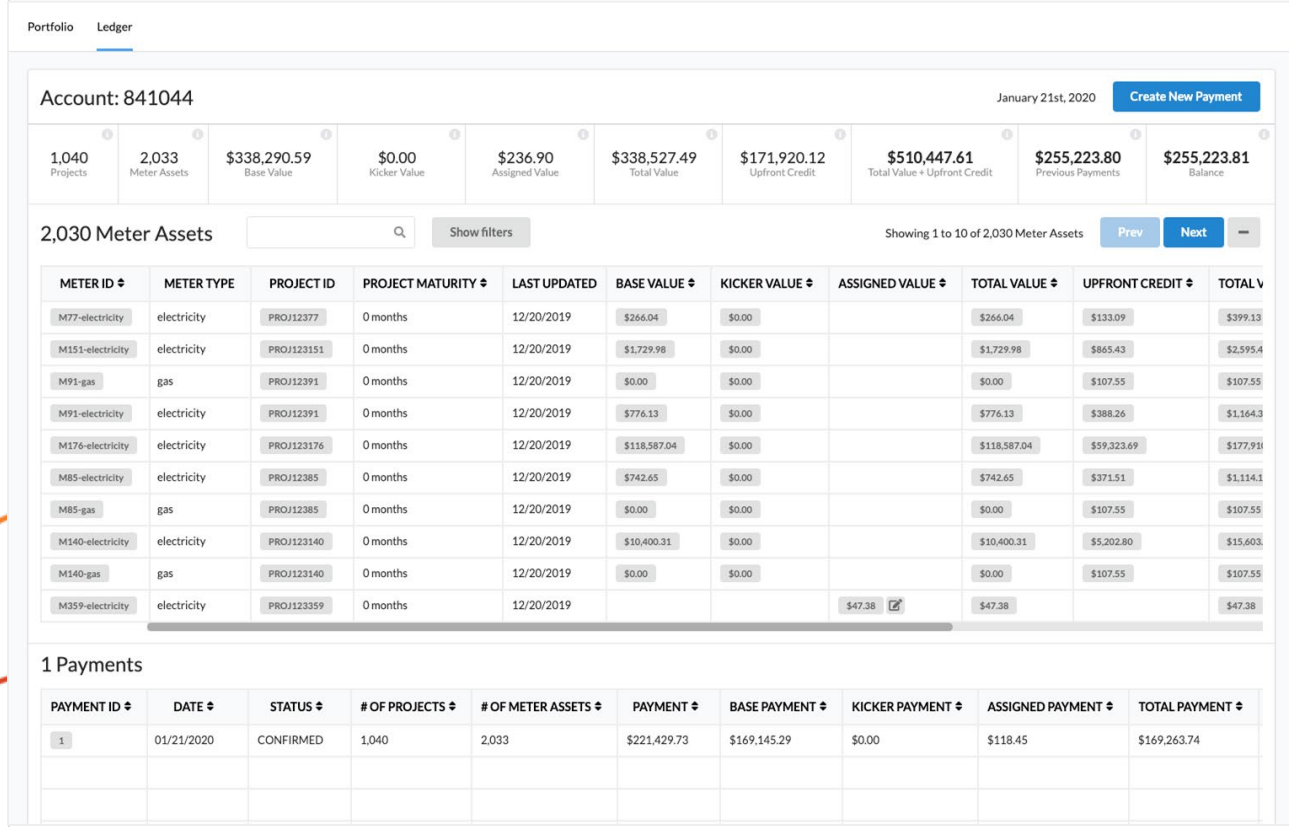






Flex Ledger

System of Record for Revenue Grade Demand Flexibility Transactions



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