



Live Demo: Con Edison's BAS Calculator Tool

December 10, 2025

OFFICE LOFTS FOR LEASE
1,000 to 7,000 sq ft
212-268-8290

Andrew Kringas

Trade Ally Manager, Con Edison

Presenters

Andrew Kringas, Trade Ally Manager, Con Edison

Zhenlan “Lanzy” Xue, Senior Engineering Specialist, Con Edison



Maximizing Efficiency: Building Automation System Savings Calculator in Action

*Discover how Con Edison's Energy Efficiency
Programs can benefit your building*



Agenda

- Introductions
- About Con Edison
- Customer Clean Energy Programs
- Introduction to Building Automation System (BAS)
- Live Demo: Building Automation System (BAS) Calculator
- Q&A

About Con Edison

We deliver electricity, gas, and steam to millions of people.

- Con Edison of New York (CECONY) delivers electricity to **3.7 million** customers, gas to **1.1 million** customers, and steam to **1,520** customers
- O&R delivers electricity to **0.3** million customers and gas to **0.1** million customers
- We operate the largest steam distribution system in the U.S.



The Evolution of the Utility's Role in Clean Energy



Core Business

Three Commodities:
Electric, Gas and
Steam



Our Customers

Diverse market
segments, unique
building stock



Growth Strategy

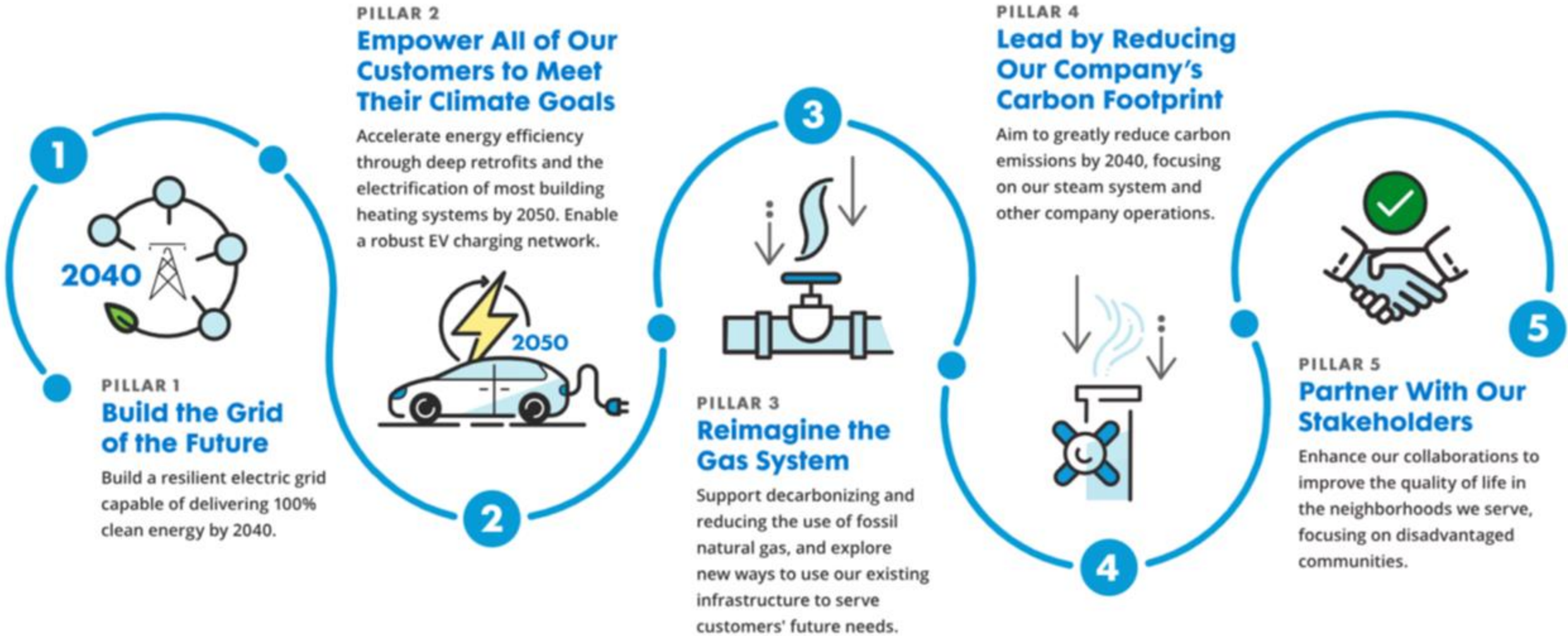
Investing \$2.0B in “EE”
and building
electrification by 2025



Trusted Energy Advisor

Promote customer
choice, education,
and incentives

Con Edison's Clean Energy Commitment



Customer Clean Energy Programs

Residential Energy Efficiency Program

Eligibility: Single family home; residential building with 1-4 units

Measure Offerings:

- Appliances (Air Purifiers, Dehumidifiers)
- Heating and Cooling Equipment
- Controls – thermostats
- Home Energy Reports
- Weatherization



Multifamily Energy Efficiency Program

Eligibility: Multifamily buildings with 5+ residential units

Incentive Level Tracks:

- Market Rate Incentives
- Affordable Housing Incentives
- In-unit Direct Install
- Neighborhood Program
- Clean Heat Program



C&I Energy Efficiency Program

Eligibility for Projects with Electric Saving Measures

- Customers with a Con Edison commercial electric account over 100 kW average peak demand

Eligibility for Projects with Gas Saving Measures

- Customers with Con Edison commercial gas accounts are eligible except customers with a service class of SC-14 or customers receiving service via a negotiated contract

Eligibility for Projects with Steam Saving Measures

- Customers must have an eligible Con Edison electric account and active steam service



Small Business & Nonprofit Program

Eligibility: Con Edison electric customers (small businesses and non-profits) with average electric demand below 300 kW on rolling 12-month basis, including:

- Restaurants
- Bodegas
- Laundromats
- Gyms
- Retail Stores
- Barber Shops / Salons
- Auto Repair Shops
- Manufacturing & Warehouses
- Offices
- Schools
- Houses of Worship
- Non-profits, and more!



Customer Clean Energy Program Measures

Residential Program

Weatherization
(Window Replacements
Roof and Wall
Insulation; Air Sealing)
Smart Usage Rewards
Smart Thermostats
Insulation (Attic,
Walls, Basement)
Air Sealing
Home Batteries*

*Available to Queens
residents

Multifamily Program

Weatherization (Window
Replacements Roof and
Wall Insulation; Air
Sealing)
Energy Management
System (EMS)
Pipe Insulation
HVAC Systems &
Controls;
Thermostatic Radiator
Valves (TRVs)

Small Business & Nonprofit

Refrigeration
HVAC Systems
Domestic Hot Water
HVAC Controls
Variable Frequency
Drives (VFD)
Building Envelope

Commercial & Industrial Program

HVAC Systems &
Controls
Refrigeration
Linear Pipe Insulation
Variable Frequency
Drives (VFD)
Building Envelope
Building Management
System (BMS)

NYS Clean Heat Program

Envelope + Air-
Source Heat Pumps
or
Envelope + Ground-
Source Heat Pumps

Eligibility: Existing
Building, Gut Rehab, or
New Construction

Customer Clean Energy Programs

Progress over Time

- **Since 2020**

- Completed more than 74K projects
- Engaged more than 4.9M customers
- Helped avoid over 5.7M metric tons of CO2 emissions; about 1.2+ million cars off the road
- Paid over \$1.4B in project incentives

- **In 2024**

- 13K+ customers installed heat pumps
- 40K+ total customers with heat pumps
- \$372M+ total investment in energy efficiency and building electrification

Customer Clean Energy Programs

Shifting Portfolio

Over the coming years, shifting focus to building envelope upgrades and electrification of heat and hot water in support of clean energy transition

Phasing Out



Lighting



Natural Gas Equipment



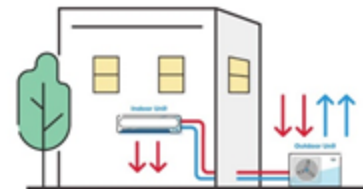
Refrigeration



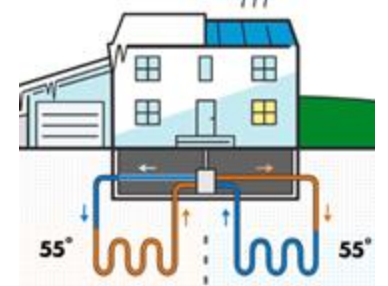
Home Energy Reports

Growing

Air Source Heat Pumps



Ground Source Heat Pumps



Building Envelope Upgrades



ATTIC INSULATION



AIR SEALING

Zhenlan “Lanzy” Xue

Senior Engineering Specialist, Con Edison

Introduction: Building Automation System (BAS)

What is a BAS?

Centralized Control of Building's:

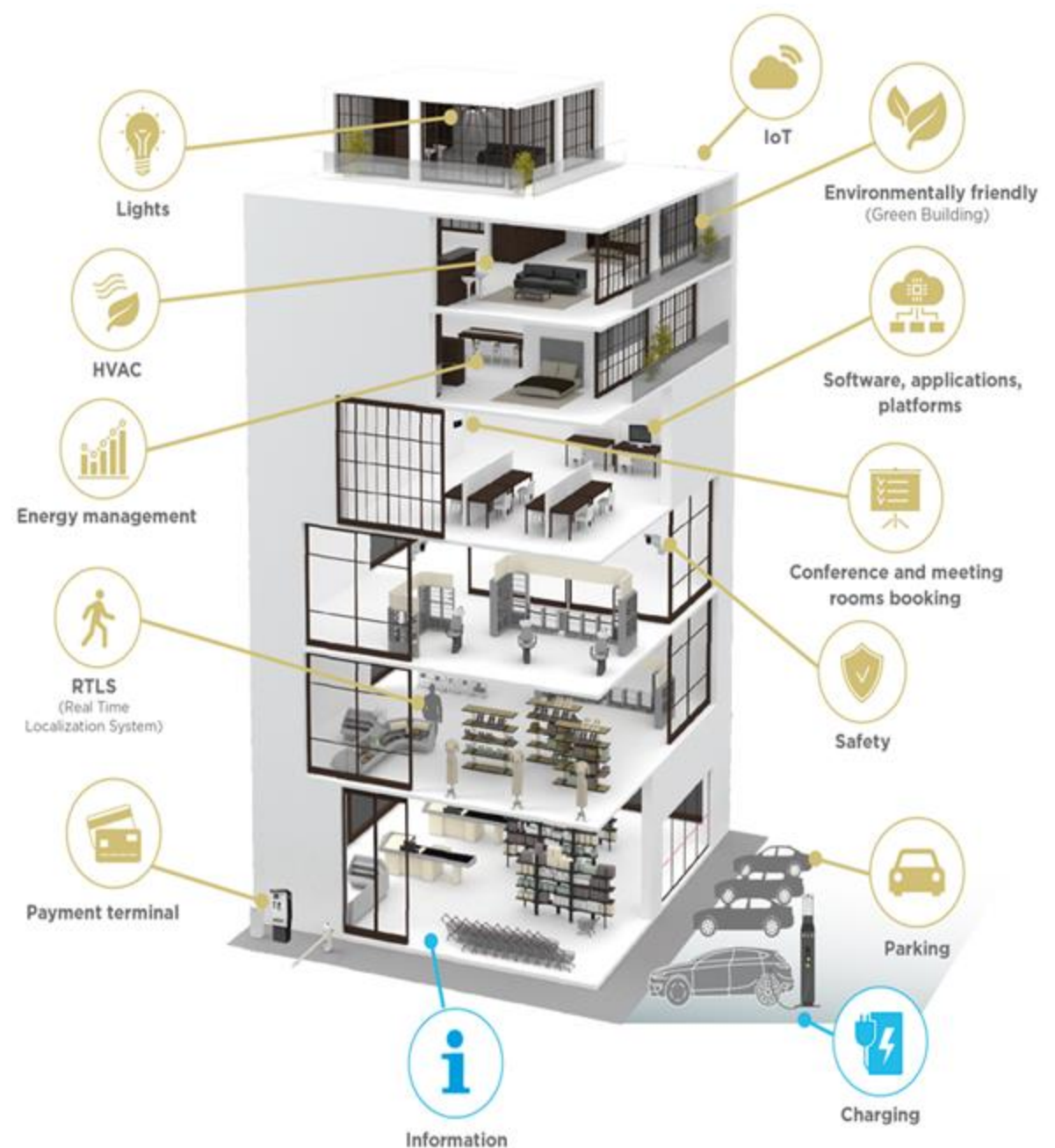
- Mechanical/Electrical
- Lighting/Fire Safety
- Surveillance/Etc.

Consists:

- Sensors
- Actuators
- Controllers

Our focus:

- Energy Saving HVAC (Heating Ventilation & Air Conditioning) Control



BAS Intelligently Saves Energy

Energy Waste in Buildings with No/Poorly Functional BAS due to:

- Lack of Centralized Control
- Inefficient HVAC Operation
- Limited Monitoring and Diagnostics
- Poor Scheduling and Automation
- Inability to Benchmark or Optimize



Examples of BAS Control Sequences:

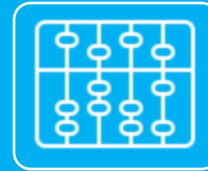
- Night Setback and Unoccupied Mode
- Optimal Start/Stop Scheduling
- Demand Controlled Ventilation
- Chiller and Boiler Optimization
- Discharge Air Temperature/ Pressure Reset

Incentivized by Con Edison Based on Savings



First Time Installation

- First time installation on centralized control system to control existing equipment
- Likely using thermostats prior to project



Custom Pathway



Expansion of Existing System

- New Sequences
- Centralized Control of Existing System



Con Edison BAS Tool

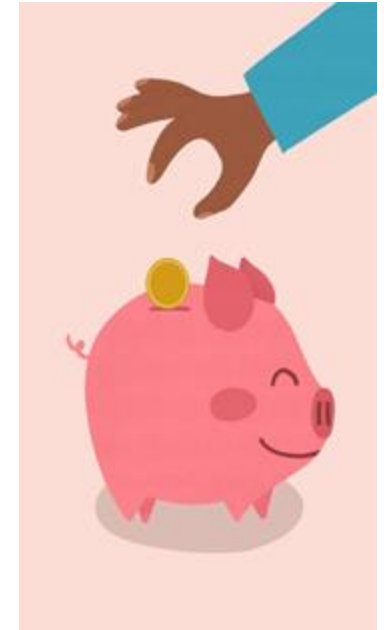
Submission Requirements with Con Edison BAS Tool

- Completed Con Edison BAS Calculator
- Most recent annual fossil fuel billing usage data (If not Con Ed Gas)
- Simplified Scope of Work
- Finalized SOO (Sequence of Operation)

Scope of Work for Affected Area 1 (To be filled by or with assistance from BAS vendor) *						
Sub-Measures	In SOW (Y/N)	Existing Operations	Existing Control Set Points	Proposed Modification	Proposed Control Set Points	Equipment Installed to Enable this Measure
System Schedules and Unoccupied Setbacks	Y	No scheduling and the HVAC system operates 24/7 with the same setting for occupied and unoccupied mode.	70F for heating and 72F for cooling, ventilation fan on for all time periods.	HVAC system scheduling based on space operation hours.	4F temperature setback, ventilation fan off for unoccupied periods.	BMS hardware and occupancy sensors that enable remote building level monitoring, control, and adjustments.
Optimal Start / Stop	Y	Fixed start and stop times for HVAC systems, regardless of actual indoor or outdoor conditions.	Maintain standard comfort levels (e.g., 72°F cooling, 70°F heating) from well before occupancy begins until long after it ends.	BMS dynamically adjusting system <u>start</u> and <u>stop times</u> based on factors including indoor temperature trends, outdoor weather, and building thermal response.	Setpoints remain the same during occupied hours but are applied more efficiently, with the system starting only as early as needed to reach setpoints by occupancy and shutting down as soon as conditions allow.	Advanced BMS hardware and software with predictive algorithms, temperature sensors throughout the building, and integration with weather forecasting tools.
Reset Chilled Water Temperature						
Reset Air Static Pressure						
Reset Boiler Water Temperature						

Save Time & Money with BAS Saving Calculator

- **Easy to participate in our Programs**
 - No need to prepare savings calculation
 - Quick calculation and incentive estimate
- **Short review/processing time**
- **Less engineering cost for application**
- **More resources towards:**
 - Commissioning
 - Staff Training
 - Maintenance



Con Edison BAS Tool Applications

Eligible Building Types



Commercial &
Industrial



Multifamily



Small Businesses &
Nonprofits

Eligible Fuel Types

- Con Edison Electric
- Con Edison Gas
- Con Edison Steam
- Oil

Available Control Sequences

- System Schedules and Unoccupied Setbacks
- Optimal Start / Stop
- Chilled Water Temperature Reset
- Air Static Pressure Reset
- Boiler Water Temperature Reset
- Demand Control Ventilation
- Economizer Control – Dry Bulb or Dual Enthalpy
- Supply Air Discharge Temperature Reset
- Condenser Water Temperature Reset

Live Demo: Building Automation System (BAS) Calculator

Panel Discussion

Panelists

Andrew Kringas, Trade Ally Manager, Con Edison

Zhenlan “Lanzy” Xue, Senior Engineering Specialist, Con Edison

Christina (CJ) Sue, Program Manager, Con Edison’s Multifamily Energy Efficiency Program

Stephanie King, Deputy Program Manager, Con Edison’s Commercial and Industrial Energy Efficiency Program Team

Audience Q&A

Thank you for joining!

Important Links and Contact Information:

Commercial & Industrial Program Website

- Email: Commercial@coned.com

Small Business & Nonprofit Program Website

- Email: ConEd-smallbiz@willdan.com

Multifamily Program Website

- Email: ConEdMultiFamily@willdan.com

Residential Program Website

- Email: Homerebates@coned.com

New York State Clean Heat Program Website

- Clean Energy Networks Team: Cleanenergynetworks@coned.com

3 Brand New Heat Pump On-Demand Courses


For Building Owners & Developers, Architects, Engineers, Contractors, Facility Managers, & Energy Consultants



URBAN GREEN Quick Cost Calculations for Electrification

On-demand course, at your own pace **\$10**


60 min 1 AIA (HSW), 1 GBCI and 1 PDH credit



URBAN GREEN Heat Pump Commissioning
What every project team needs to know

On-demand course, at your own pace **\$10**


90 min 1.5 AIA (HSW), 1.5 GBCI and 1.5 PDH credits



URBAN GREEN Reading the Room: Simple Heat Pump Diagnostics

On-demand course, at your own pace **\$10**

30 min 0.5 AIA (HSW) and 0.5 GBCI credits





Thank you!



urbangreencouncil.org



Urban Green Council