Webinar: “Unlock the Future of Energy Management with AI”

March 19, 2025

Agenda

2:00 pm – What’s New from Enova

Andrew and Chris, Key Account Advisors, Enova Power Corp.

2:10 pm – Unlock the Future of Energy Management with AI.

Behdad Bahrami and Courtney Conway Edgecom Energy

2:50 pm – Q&A

What’s New From Enova:

Giving Back to our Community:

- Region of Waterloo Holiday Family: $1,800.00

Enova’s 2025 Elementary School Electrical Safety Art Contest

Upcoming Webinar Topics:

- New and Enhanced Save On Energy Programs
  - Expansion of Energy Management programming
  - Solar Photovoltaic Distribute Energy Resources

Enova's Key Account Advisors – here to help!

Andrew Bennett

Andrew has been helping businesses find energy solutions for more than 15 years. With a background in engineering technology and energy management, coupled with a data-driven approach, Andrew has the knowledge to solve your tough energy challenges.

519-239-8211

andrew.bennett@enovapower.com

Chris Drygala

Born and raised in Kitchener-Waterloo, Chris has 13 years of experience in energy management and customer service. As a Certified Engineering Technologist with a Sustainable Energy and Building Technology diploma from Humber College, Chris knows the questions you need to ask for the solutions you need.

226-220-2935

chris.drygala@enovapower.com

Unlock the Future of Energy Management with AI

Presented by:
Edgecom Energy

Behdad Bahrami

Courtney Conway

Enova

Edgecom Energy Enova

Webinar

Unlock the Future of Energy Management with AI

March 19, 2025

Certified B Corporation

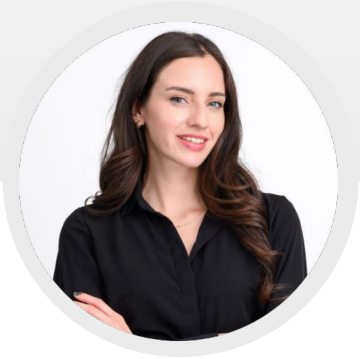
INTRODUCTION

Your Speakers

Behdad Bahrami, CEM, CVMP

Co-Founder & CEO

Former energy manager at one of North America's largest plastics extrusion companies.



Courtney Conway, CEM, CMVP

Operations Manager

Ensures seamless delivery of the company's advanced energy solutions to meet customer needs, leveraging her energy management expertise.

THE PROBLEM

Data, Data, Data.

Lack of Granular Data

Many facilities focus only on total consumption and lack any data on downstream assets.

Tedious Data Collection

Many facilities still collect data manually, which is both time consuming and adds room for error.

Too Much Data to Process

With data from the market, your facility, weather, and more, making the best decisions becomes challenging.

Time-Consuming Data Analysis

Analyzing large datasets and extracting useful insights is time consuming and requires expertise.

THE PROBLEM

Not Enough Data

Enova

2235 Maple Street
Kitchener, ON, M2K 1A2
(905) 111-2222

Data Delayed By 31 Days

Some Usage Info

Demand kW	75 kW
Total Facility Usage kW	1089.531 kW

Stuff No-one Knows

Ontario HOEP 157,200 kWh @ $0.04/kWh	$6,288.00
Regulatory Fee	$78.5
Distribution Fee	$54.2
Global Adjustment (Class B)	$15,002.22
Delivery	$45

THE PROBLEM

Too Much Data

Facility Data

Real-time energy insights down to the machine level, baselined against production, occupancy, and weather.

Weather Data

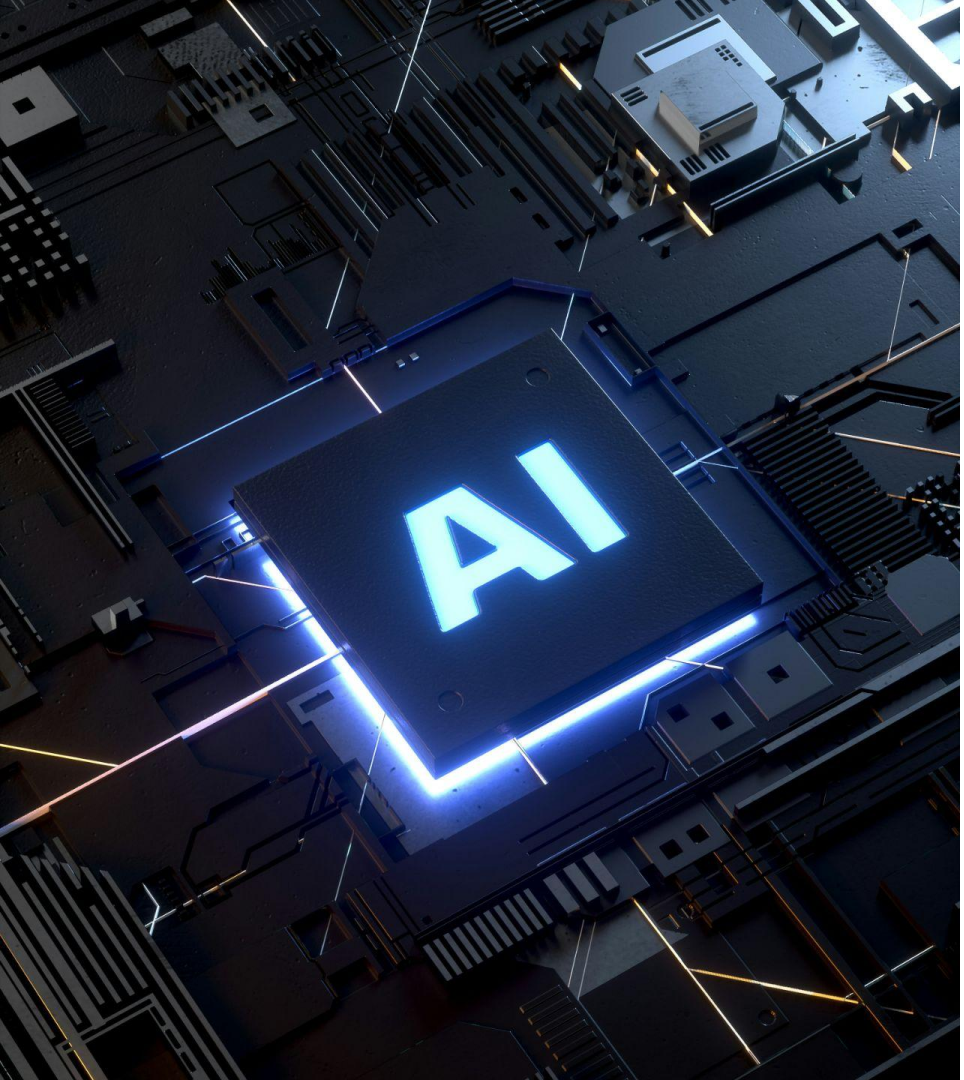
Hot and cold days drive energy peaks; sunshine boosts solar output; rain cools demand.

Billing Data

Bills have multiple line items which are complicated. Rates are complicated and hard to understand and control.

Real-Time Grid Data

The grid is dynamic—hourly price changes, Demand Response events, and Peaks create overwhelming data



Artificial Intelligence

Benefits of AI

Democratization of Data

Provides an interface where non-data scientists can analyze and access real information.

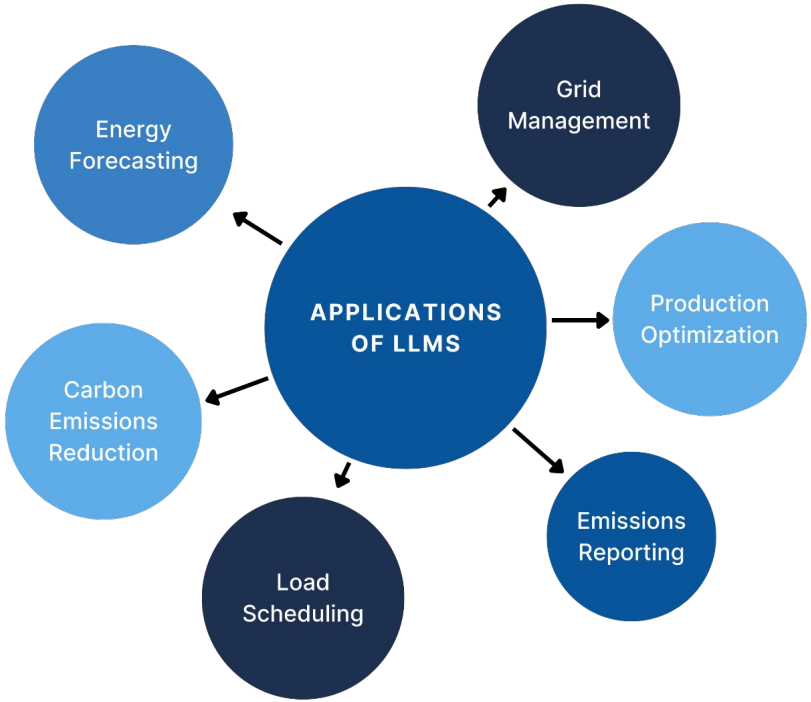
Enhanced Operational Efficiency

Significantly reduce data analysis and communication time.

Better Decision Making

- Instant access to energy and carbon insights
- Report generation for energy, costs, and emissions
- Instant answers specific to your facility

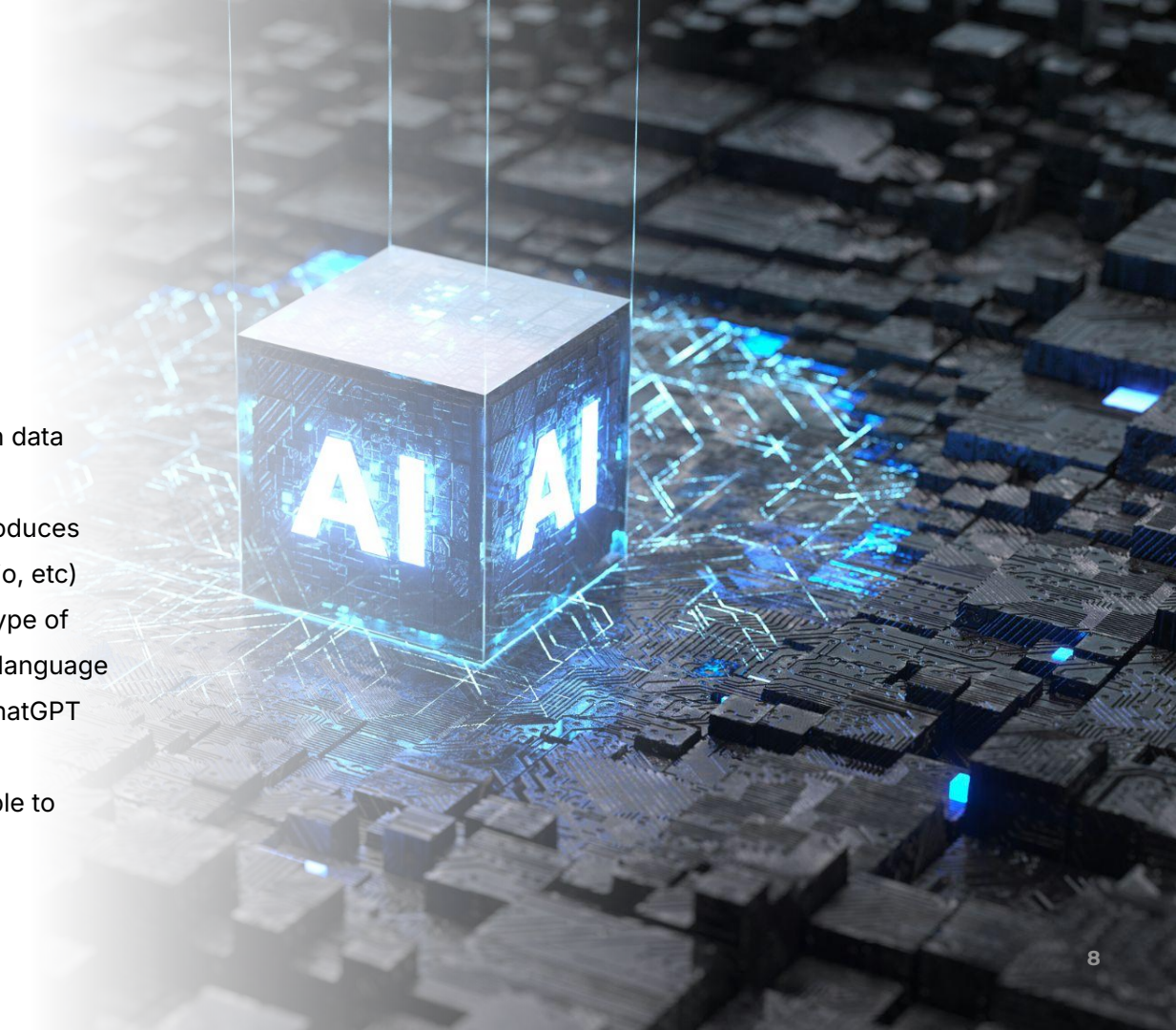
AI Unlocks Energy Optimization



Artificial Intelligence

Generative AI

- Traditional AI models focus primarily on data processing and prediction
- Generative AI models differ in that it produces entirely new content (text, images, audio, etc)
- Large Language Models (LLMs) are a type of Generative AI that understands human language
- Most common application of Gen AI: ChatGPT and other similar chatbots
- LLMs have enabled non-technical people to interface with advanced algorithms



THE PROBLEM

General LLMs

Hallucinations

Hallucinations occur when the LLM doesn't understand a prompt and generates nonsense or false data.

Lacks Domain Knowledge

General LLMs may only be able to provide surface-level answers to domain-specific questions.

Lacks Domain Context

Information, terms, and data may not be interpreted within the context of the field.

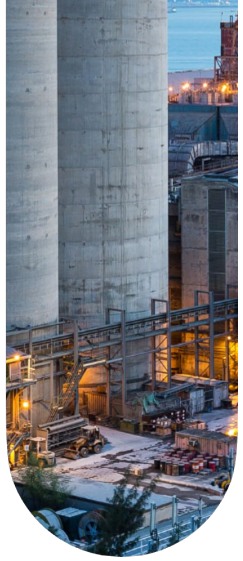
Prompts & Performance

May involve complex prompting to solve specific problems and solve it with poor performance.

AI ENERGY COPILOT

AI Energy CoPilot Vs. General LLM

- AI Energy CoPilot is trained on energy data
- Receives real-time data from your assets
- Direct integration with EMIS
- Ability to integrate with SCADA
- Features and tools purpose-built for energy management
    - 24 Hour Optimal Production Scheduling
    - Instant answers for energy, cost, production, and emissions questions
    - Smart Alerts and Alarms
    - Proactive insights tailored for your facility



AI Energy CoPilot

Internal and External Benefits

Internal Optimization

- Gain constant facility oversight
- Quickly generate reports for stakeholders
- Smart alarms based on your specific thresholds
- Identify inefficiencies and abnormal consumption
- Aggregate all the data from your utilities, the grid, and facility in one platform

Grid Side Optimization

- Live grid data analysis
- AI-powered Peak Predictions
- Demand Response Participation
- Automated DER Market Participation

Funding

- 50% Funded in Ontario through SAVE ON ENERGY POWER WHAT'S NEXT

Artificial Intelligence

Future of AI

Inter-agent Communication

AI Agents will be able to share information and collaborate to produce better results.

More Control

Give AI the ability to control processes via natural language. Ex. Controlling HVAC and downstream assets.

Integration of DERs

Connect DERs like energy storage and renewables into a single platform.

ENERGY ECOSYSTEM

LLM Use Cases

AI ENERGY COPILOT

Sample Questions and Jobs

Energy Insights
Suggestions

- Provide a breakdown of yesterday's energy consumption for the facility.
- Give me the interval data of the "Main" from yesterday in a CSV file.
- How much was the consumption of the "Main" yesterday?

Financial Insights
Suggestions

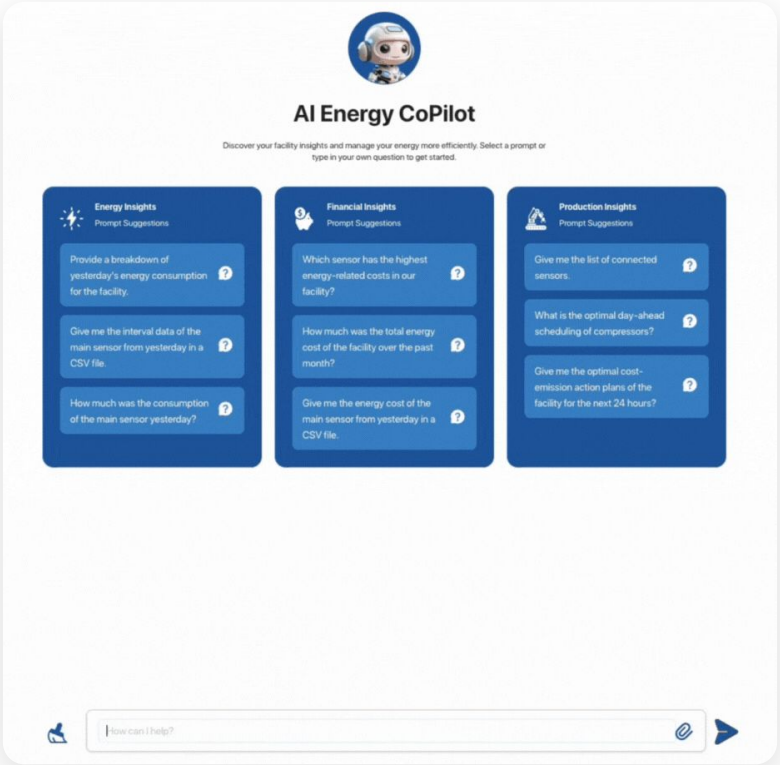
- Which sensor has the highest energy-related costs in our facility?
- How much was the total energy cost of the facility over the past month?
- Give me the energy cost of the "Main" from yesterday in a CSV file.

Production Insights
Suggestions

- Give me the list of connected sensors.
- How much was the uptime of "Main" over the last week?
- Provide the emission data for the "Main" from yesterday in a CSV file.

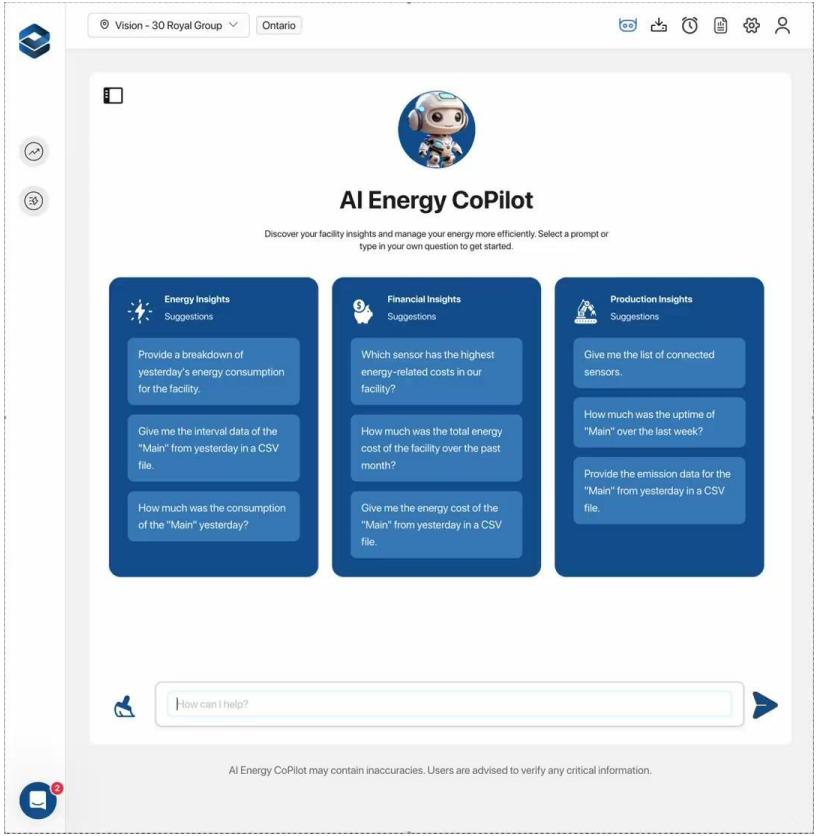
AI ENERGY COPILOT

Optimize Production Schedule



AI ENERGY COPILOT

Breakdown by Device



AI ENERGY COPILOT

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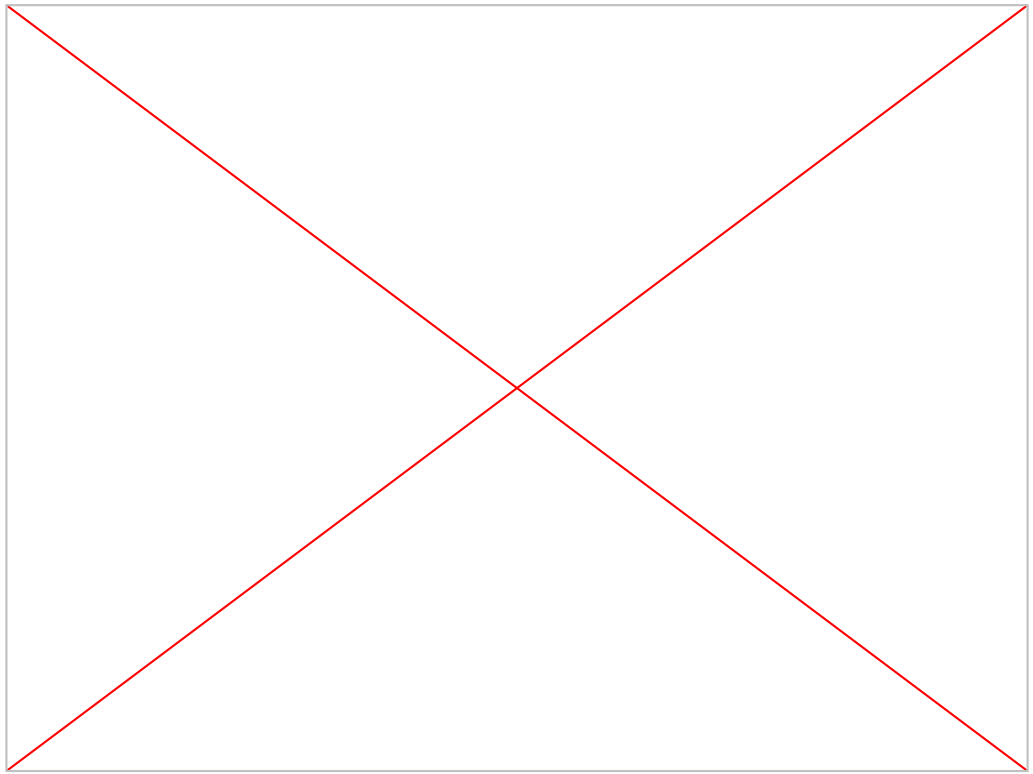
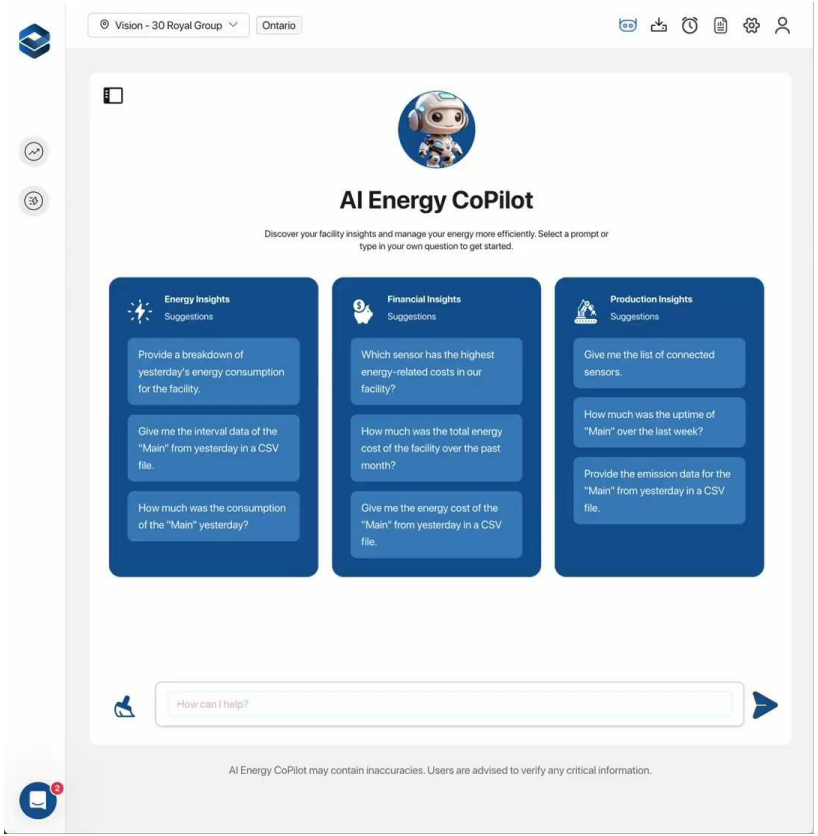


AI ENERGY COPILOT

Energy Cost Comparison



EDGECOM ENERGY

Company Snapshot

West Fraser · Dr. Oetker · Stellantis · BGIS · PaperWorks · RBC · BOCK · Alamos Gold Inc. · Johnson Controls · Sobeys inc. · METROLINX · Laurier Wilfrid Laurier University

Active Devices

400+

Deployed

930+

MW Served

Growing Team

Team of 26 People

Facilities

190+

Throughout North America

Rapidly Expanding

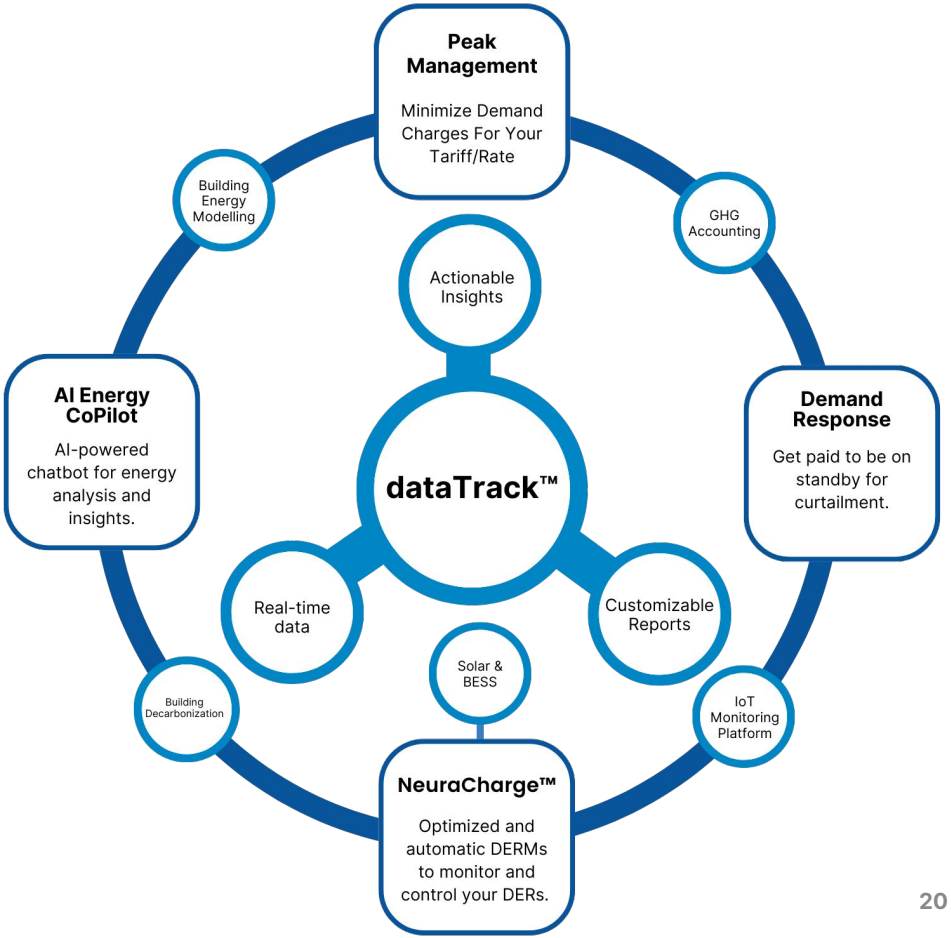
Currently operating in Canada, USA, and Europe

Certified B Corporation

ENERGY ECOSYSTEM

Our Products

Real-time energy monitoring, precise peak and price predictions, Demand Response, and optimized DER control—all in one simple tool.



ENERGY ECOSYSTEM

Beyond LLMs

Peak & Price Predictions

Better peak and price predictions through ‘traditional’ AI algorithms. 17 variables considered.

DER Optimization

Better ROI through improved predictions and revenue stacking.

Insights and Recommendations

Customized Insights energy consumption trends of your equipment and facility data.

ACHIEVEMENTS

Award-Winning AI

- Winner of Shell New Energy Challenge 2024
- Winner of ABB Startup Challenge 2024
- AWS Gen AI Labs Cohort
- Trusted by Leading Enterprises
- Experts in Grid Programs

Trusted By Industry Leaders

CONTACT US

Thank You!

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