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Energy Conservation for Your Business

Jenn Jones, C.E.M., CSSGB, C.W.E.P.

PennTAP Technical Advisor



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Pennsylvania Technical Assistance Program

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PennTAP Services

Energy and Environment

- Pollution Prevention and Energy Efficiency Projects (P2/E2)
- Economy, Energy & Environment Assessments (E3)
- ISO 50001 Ready (Energy Management System)

Innovation

- Engagement with Penn State Faculty, Students, Facilities
- Product and Process Development
- Statewide Resource Partners
- Entrepreneurial Assistance



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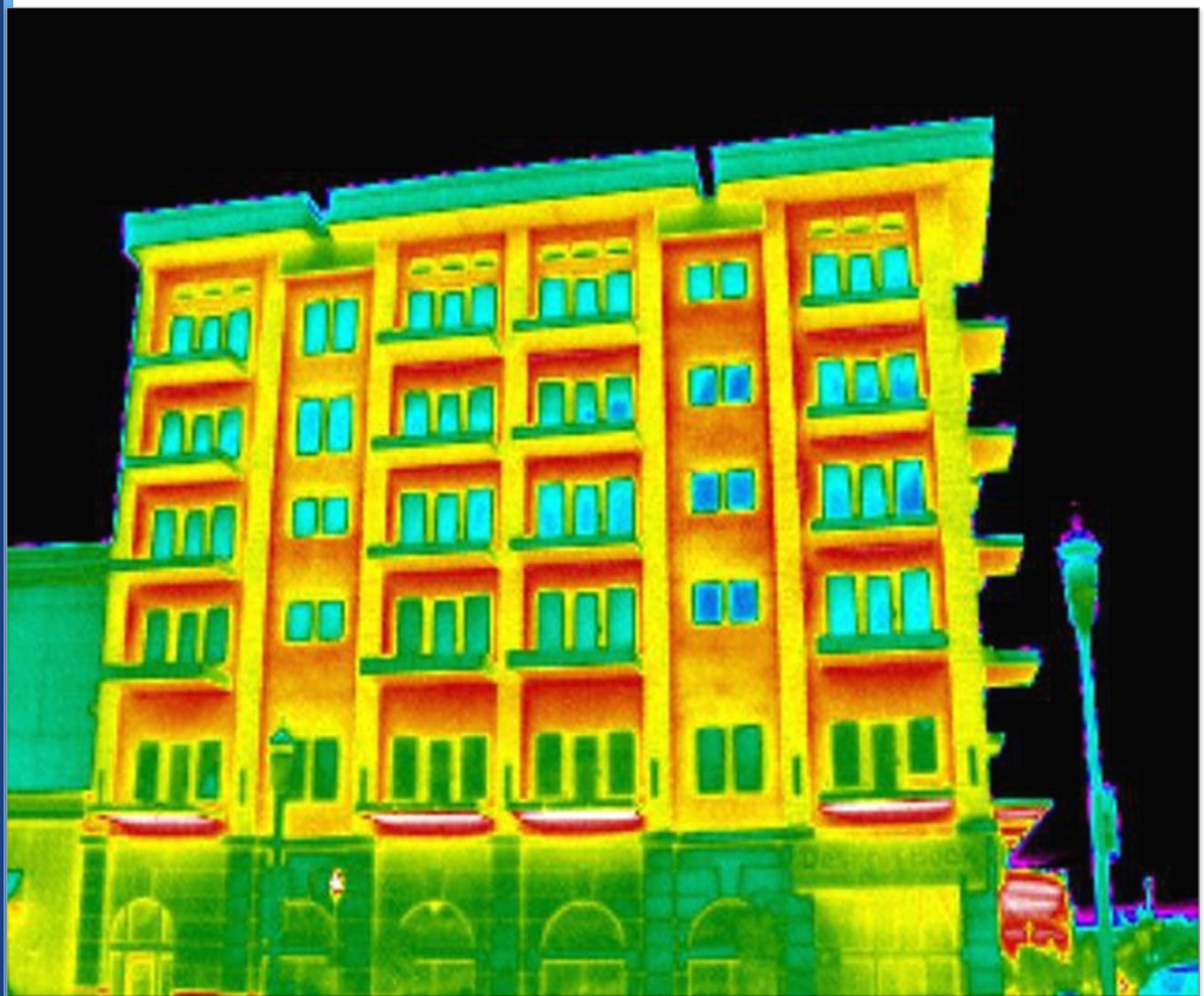


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Energy Conservation Projects





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Lighting



HVAC



- Annual maintenance
- Replace worn window and door seals
- Programmable thermostat
- Upgrade to ENERGY STAR® unit
- Bigger is not always better



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Refrigeration

- Identify and repair refrigerant leaks
- Clean condenser coils
- Lubricate fan motors
- Check gaskets and seals
- Install plastic strip curtains



Manufacturing



- Repair compressed air leaks
- Waste heat recovery
- High efficiency motors, VFDs



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Building Automation System

Reduce energy
consumption by as much
as 20-30%!



Energy Conservation Funding Opportunities

- Act 129 Utility Rebates
- Small Business Advantage Grant (SBAG) – PA DEP
 - 100 Employees or less
 - Reduce energy consumption by 20% annually and save \$500 per year in energy costs
 - Pays for equipment only
 - Max grant award - \$5,000 - \$8,000
- Rural Energy for America Program (REAP) – USDA
 - Pays for up to 50% of eligible project cost
 - Max grant award - \$500,000 for energy efficiency projects, \$1,000,000 for renewable energy projects
 - Highly competitive - no guarantees
 - Must be located outside of an area with a population of 50,000 or greater and meet the SBA definition of a small business



Case Study – Rebates and SBAG

- A 60-employee manufacturing company received a \$4,846 grant to upgrade to LED lights. They also received over \$4,400 in utility rebates.
- The total project cost was just over \$19,000.
- They anticipate saving over 70,000 kwh of electricity, with an annual savings of \$11,293.
- The simple payback period for their portion of the cost is less than a year!

Contact Information

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Energy Efficiency for Business or Nonprofit Organizations

Tax Overview



Kevin M. McGarry, CPA
Urish Popeck & Co., LLC
June 8, 2023

Discussion Agenda

- Introductions
- Energy Efficiency Tax Deduction – IRC 179D
 - Existing provisions (2022 and prior)
 - Update provisions from Inflation Reduction Act “IRA”

Urish Popeck & Co., LLC

- Regional Firm, Headquartered in Pittsburgh, PA
- Local office located on Sandy Drive
- Founding member of BDO USA Alliance

Urish Popeck & Co., LLC

- Kevin M. McGarry, CPA
 - 25 years of accounting/consulting experience
 - Urish Popeck for past 20 years
 - Partner-in-charge of State College office

Disclaimer

- Presentation is for educational purposes which is not intended to provide specific legal or tax advice.
- Tax planning is specific to every business, organization and/or individual, so please consult your advisor for implications specific to your situation.

IRC Section 179D

- Initial Guidance
 - 2005 Energy Policy Act
 - Tax Deduction – up to \$1.80 per sqft
 - 50% energy/power savings for building
 - Partial deductions
 - HVAC
 - Lighting
 - Building Envelope
 - Certification required
 - Government owned buildings
 - Deduction can be allocated to “designers”

IRC Section 179D

- Initial Guidance
 - What buildings qualify?
 - Commercial Buildings
 - Residential Buildings – 4 stories or more
 - Government owned buildings
 - Who can benefit?
 - For profit owners
 - Commercial or residential (4 stories or more)
 - Designers of government buildings
 - Architects, engineers, energy consultants

IRC Section 179D

- New Guidance – Inflation Reduction Act (“IRA”)
 - Increased deduction
 - Up to \$5 per sqft
 - Increase in frequency of improvements/deduction
 - Additional requirements to qualify
 - Prevailing wages and apprenticeship
 - Domestic components used in construction
 - Expanded allocation opportunities
 - Non-Profits
 - Churches/Religious Organizations
 - Private schools/universities

IRC Section 179D

- Transition/Timing of Guidance
 - Initial guidance
 - 2022 and prior years
 - Opportunities to amend or catch up
 - IRA updated guidance
 - 2023 through 2032
- Certifications/Expertise Required
 - Inspections
 - Certification requirements

Contact information

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FirstEnergy Companies

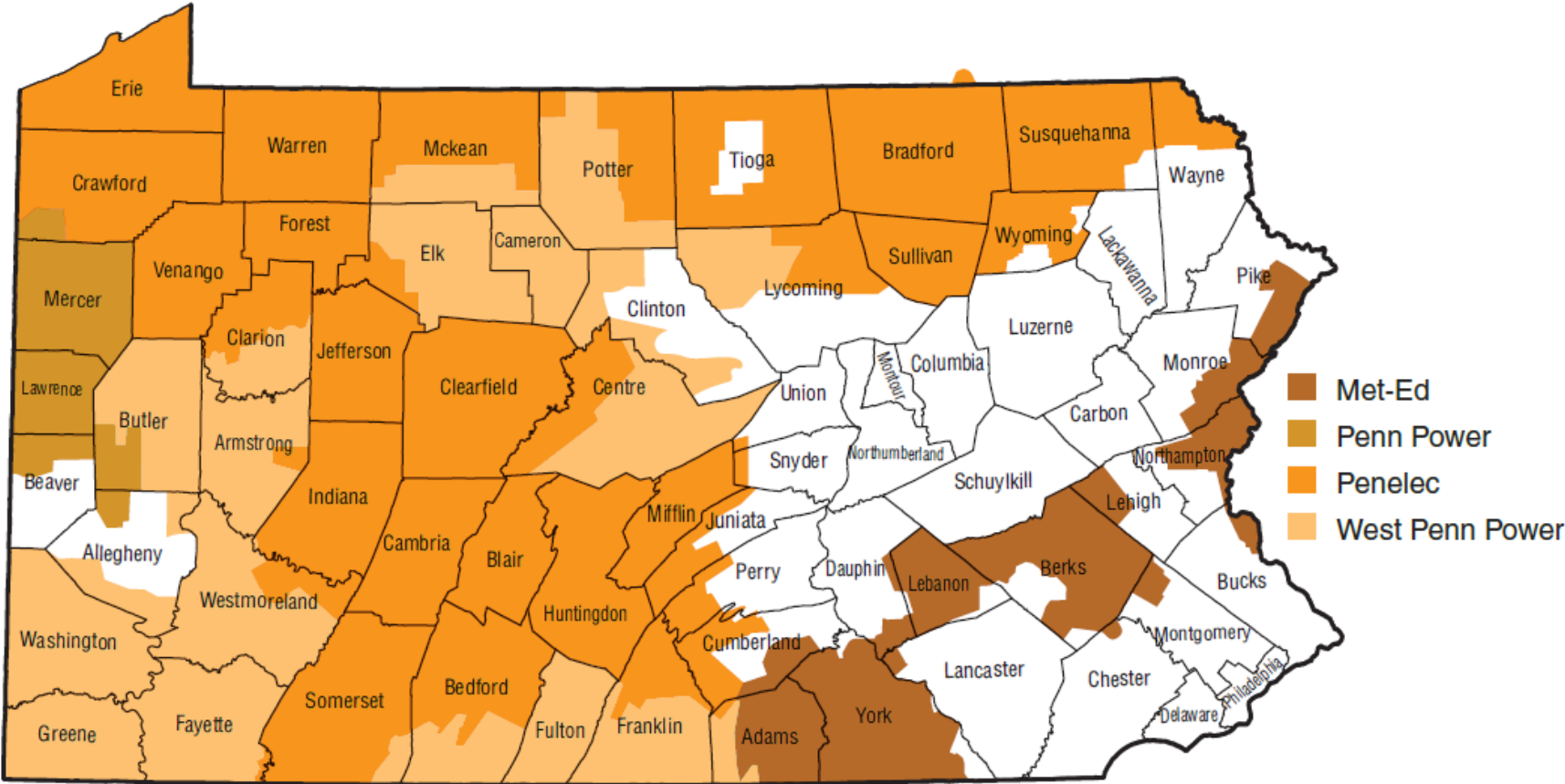
FirstEnergy's Pennsylvania Utilities

Energy Efficiency Programs

Phase IV: June 1, 2021 – May 31, 2026



FirstEnergy's Pennsylvania Utilities



FirstEnergy's vision for the Met-Ed, Penelec, Penn Power and West Penn Power programs is to continue the positive program momentum while achieving an even better experience for program participants.

FirstEnergy Energy Efficiency

- Meet the Team
- PA Program Overview
- PA Vendors
- PA Programs

Franklin Energy: C&I Energy Efficiency Team

- FirstEnergy
 - Lynn DeCario / Caleb Sites
 - Team Introductions
 - Team Roles
- Franklin Energy
 - Deanna Weaver / Ray Murphy
 - Team Introductions
 - Team Roles
 - Office Locations
- Willdan
 - Eric Miner / Kevin Lugo
 - Team Introductions
 - Team Roles
 - Office Locations

Pennsylvania Act 129

- **PA Energy Efficiency and Conservation (EE&C) Program**
- **What is it?**
- **Who does it impact?**
- **How is it funded ?**
- **How are Savings Determined ?**

FirstEnergy Act 129 Phase IV : Eligibility

- **Customer**

- All Customer Classes
 - Current Customer Account
 - **MUST** be on an Act Eligible Rate Code
- Residential (Res)
 - Defined Rate Schedule
- Small Commercial & Industrial (**SCI**)
 - Defined by Demand : *< 400 kW*
 - Defined Rate Schedule
- Commercial & Industrial (**LCI**)
 - Defined by Demand : *> 400 kW*
 - Defined Rate Schedule
- Governmental / Non-Profit /Institutional (**GNI**)
 - PA Act 129 Phase IV – ELIGIBLE

FirstEnergy Act 129 Phase IV : Eligibility

- **Equipment**

- Only NEW Equipment
- Lighting -> EnergyStar or DLC Listed **OR** Program Approval
- Approved Measure Category **OR** Program Approval
- ***Control vs Consumption***

- ***180 Day Lookback***

- *Installed and Operational*

- **Ineligible Measures**

- Power factor correction devices
- Motor soft starts
- Fuel Switching
- Used Equipment

FirstEnergy Act 129 Phase IV Incentives

- **Performance Rebates (cents per kilowatt-hour (kWh) saved)**
 - Lighting
 - Custom
 - Facility Audit
 - CHP
 - Solar
 - Building Tune - Up
 - New Construction
 - RCx
 - Custom Bldg. Improvements
- **Prescriptive Rebates (\$ per measure or unit)**
 - HVAC
 - HVAC Tune-Up
 - Food Service
 - Appliances & Electronics
 - LED Exit Signs
 - Lighting Controls
 - Point of Sale (Midstream / Instant Discount)



FirstEnergy Act 129 Phase IV Incentives

- **Performance Rebates**

- Based upon **H**our **O**f **U**se (**HOU**)
- Rate stated in a \$ or ¢ → \$0.05 / kWh or 5 ¢ / kWh or \$50 / MWh
- Example:
 - Lighting Project:
 - Energy Saved : 100,000 kWh
 - Incentive Rate : \$0.05 / kWh
 - Estimated Rebate = 100,000 kWh x \$0.05/kWh = \$5,000
 - kWh
 - kWh = Watts (W) x time (hrs) / 1000
- Sometimes referred to as Variable Type Rebates

FirstEnergy Act 129 Phase IV Incentives

- **Prescriptive Rebates**

- Based upon \$ / Unit
- Unit expressed relative to incentivized measure
- Examples Rebates:
 - HVAC : \$ / Ton VFD : \$ / Hp controlled LED Exit Sign : \$ / Unit
- Example:
 - HVAC Project:
 - RTU Tonnage 300
 - Incentive Rate : \$50 / Ton
 - Estimated Rebate = 300 Ton x \$50 / Ton = \$ 15,000
- Sometimes referred to Point of Sale / Midstream / Instant Discount

FirstEnergy Act 129 Phase IV Incentives

- **Stackable Incentives**

- ***Incentive stacking*** : Combining multiple incentive programs offered for energy efficiency measures.
- Incentive stacking may help offset the costs of energy efficient equipment, or the overall project.
- FirstEnergy PA Act 129 Energy Efficiency Incentives are Stackable Incentives

FirstEnergy Act 129 Phase IV Plans

- **What's New in Phase IV ?**

- Coincidental Peak (kW – pk) Reduction Targets

- Measured:

- June 1 – August 31
- Monday – Friday (Excluding Holidays)
- 2:00 – 6:00 pm

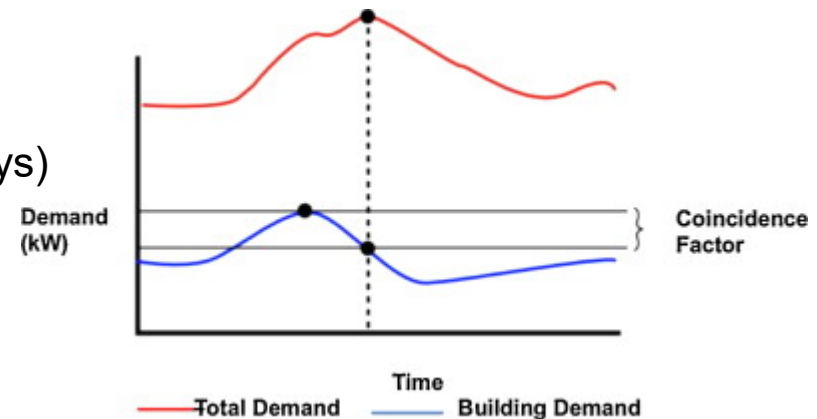
- Energy Management Programs

- New Construction

- Midstream Programs

- Retention of PJM Credits

- Two Conservation Service Providers (CSP)



FirstEnergy Phase IV Programs

- Franklin Energy

- Lighting/Prescriptive
- Custom

- Willdan

- Building Tune-Up
- RCx and BOT
- New Construction
- Custom Bldg. Improvement

- www.energysavepa.com *(Choose for your business)*

FirstEnergy Phase IV : Agricultural Program

- **Rebate Type:** **Prescriptive**

- **Eligible Measures:**

- Automatic milker takeoffs
 - Dairy scroll compressors
 - High-efficiency ventilation fans
 - High-volume, low-speed fans (HVLS)
 - Livestock waterers
 - Variable frequency drives on dairy vacuum pumps
 - Dairy parlor heat reclaimers
 - Low pressure irrigation systems
 - Engine Block Heater timer
-
- The project must be completed or installed on or after June 1, 2021, and no later than May 31, 2026. The rebate must be applied for no later than 180 days from the date of project completion, which is defined as all equipment being installed, operational and commissioned.



FirstEnergy Phase IV : Appl & Elec Program

- **Rebate Type:** **Prescriptive**
- **Eligible Measures:**
 - ENERGY STAR certified clothes washers and electric dryers
 - ENERGY STAR certified refrigerators and freezers
 - ENERGY STAR certified window air conditioners
 - ENERGY STAR certified heat pump and solar water heaters
 - ENERGY STAR certified office equipment
 - ENERGY STAR certified uninterruptable power supplies (UPS)
 - Pre-rinse spray nozzles
 - Certified EV charging cord
 - ENERGY STAR certified water cooler



- The project must be completed or installed on or after June 1, 2021, and no later than May 31, 2026. The rebate must be applied for no later than 180 days from the date of project completion, which is defined as all equipment being installed, operational and commissioned.

FirstEnergy Phase IV : HVAC

- **Rebate Type:** **Prescriptive**
- **Eligible Measures:**
 - Air conditioners
 - Water-Cooled Electric Chillers
 - Heat pumps
 - PTAC/PTHP



- The project must be completed or installed on or after June 1, 2021, and no later than May 31, 2026. The rebate must be applied for no later than 180 days from the date of project completion, which is defined as all equipment being installed, operational and commissioned.

FirstEnergy Phase IV : Food Service

- **Rebate Type: Prescriptive**

- **Eligible Measures:**

- ECM Evap Fan Motor
- Evap Fan Controls
- Refrigerated Case Cover
- ENERGY STAR certified Steam Cooker
- ENERGY STAR certified Dishwasher
- Induction Warmer/Rethermalizer Well
- ENERGY STAR certified Coffee Brewer
- Pre-Rinse Sprayer
- ENERGY STAR certified reach-in refrigerators
- ENERGY STAR certified reach-in freezers
- ENERGY STAR certified ice machines
- Strip curtains for walk-in coolers and freezers
- Anti-sweat heater controls on cooler and freezers doors
- Beverage vending machine controls
- ENERGY STAR certified beverage vending machines
- ENERGY STAR certified combination ovens
- ENERGY STAR certified convection ovens
- ENERGY STAR certified electric steam cookers
- ENERGY STAR certified hot food holding cabinets
- ENERGY STAR certified fryers
- ENERGY STAR certified griddles
- ENERGY STAR certified hot food holding cabinets



- The project must be completed or installed on or after June 1, 2021, and no later than May 31, 2026. The rebate must be applied for no later than 180 days from the date of project completion, which is defined as all equipment being installed, operational and commissioned.

FirstEnergy Phase IV : Instant Discounts

- Rebate Type: **Prescriptive**

- **Midstream Channel**

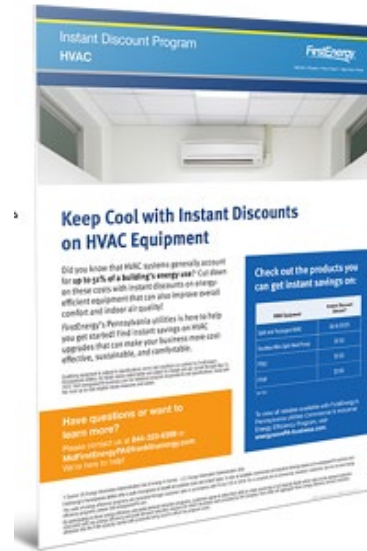
- **Eligible Measures:**

- Lighting
- HVAC
- Food Service

- **Defined Measure List**

- **Point of Sale Webpage**

- Program Overview
- List of Participating Distributors
- Resources for Distributors
- www.energysavepa-bizsolutions.com/instant-discounts



FirstEnergy Phase IV : Custom

- **Rebate Type: Performance**

- **Eligible Measures:**

- Industrial process upgrades
- Compressed air system upgrades
- Air-cooled chillers
- Upgrading existing motors to energy-efficient motors
- Water/wastewater system improvements
- Economizers
- Datacenter equipment retrofits and upgrades
- Chilled water system redesign
- VFD and motor applications
- Custom HVAC
- Custom Chillers
- Custom Controls
- Agricultural / Horticultural Lighting & Process
- Contact Program for Additional Eligible Measures

- **Incentives:**

- Incentives are paid at 5¢ per kWh for retail energy usage displaced from FirstEnergy's Pennsylvania utility distribution system and up to \$150/kW for demand reduction during the period of June 1 – August 30: M – Fr 2:00 – 6:00 pm (Excludes Holidays and Weekends).



- **Ineligible Measures**

- Power factor correction devices
- Motor soft starts
- Renewable energy technologies that generate electricity (e.g., wind generation, micro-hydro turbines, etc.)
- Fuel Switching (e.g., replacement of an electric chiller with an absorption chiller)
- Used Equipment

Incentives Cap: 50 % of total project cost, up to \$500,000

FirstEnergy Phase IV : Photovoltaic (PV)

- **Rebate Type: Performance**
- **Eligibility:**
 - Contact FirstEnergy Program Manager for Approval
 - General Items:
 - The customer's retail tariff must be eligible for participation in FirstEnergy's PA. Act 129 program.
 - PV project size may be limited by terms of FirstEnergy Pennsylvania Utilities retail tariff(s), including interconnection and net metering requirements.
 - PV project must be compliant with FirstEnergy's Pennsylvania utilities retail tariff(s); including all interconnection and net metering requirements.
 - www.energysavepa-bizsolutions.com/solar
- **Incentives:**
 - Incentives are paid at 5¢ per kWh for retail energy usage displaced from FirstEnergy's Pennsylvania utility distribution system.



- **Ineligible**
 - PV projects classified as Merchant or Wholesale are ineligible to participate.
 - Auxiliary battery storage systems for the PV project are not eligible.
 - Used Equipment

Incentives Cap: 50 % of total PV project cost, up to \$500,000

FirstEnergy Phase IV : Combined Heat Power (CHP)

- **Rebate Type: Performance**
- **Eligibility:**
 - Contact FirstEnergy Program Manager for Approval
 - **General Items:**
 - All CHP electricity generated is intended solely for on-site use by the customer.
 - Generators will be driven by turbines or internal combustion engines coupled to generators, where waste heat is used to support customer's process.
 - The thermal output must be used within the customer's process and/or building systems. The design of the system shall take into consideration the application of a technology (e.g. absorption chillers) that will use the thermal output to further reduce the customer's electric load.
 - CHP design must achieve at least 65 percent operating efficiency (relationship of useful electric and thermal output versus the fuel input- higher heating value).
 - www.energysavepa-bizsolutions.com/heat-and-power
- **Incentives:**
 - Incentives are paid at 3¢ per kWh for retail energy usage displaced from FirstEnergy's Pennsylvania utility distribution system.



- **Ineligible**
 - Customers with CHP projects classified as Merchant or Wholesale are ineligible to participate.
 - Incentives are not available to CHP systems that serve off-site customers, export to the grid, or are not located on the customer's property.
 - Used Equipment

Incentives Cap: 50 % of total project cost, up to \$500,000

FirstEnergy Phase IV : Lighting

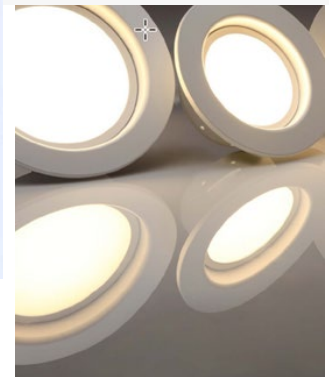
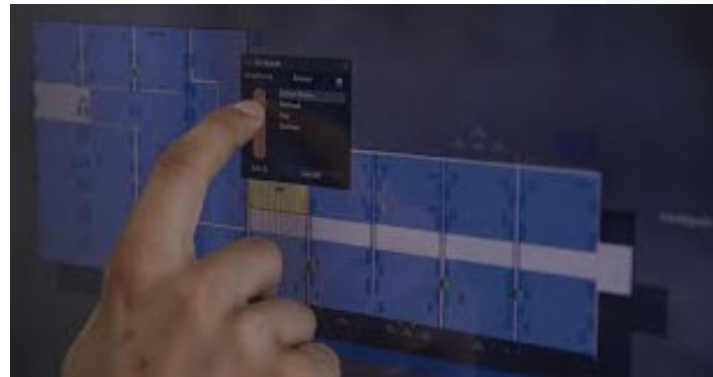
- **Rebate Type: Prescriptive**
- **Eligible Measures:**
 - Lighting Controls
 - Dual daylight and occupancy
 - Daylight continuous dimming control
 - Vacancy controls
 - Occupancy controls
 - LED Lamps
 - Replacement of Incandescent
 - Pre-Approval Required
 - Pre-Inspection Required
 - LED Exit Signs



The project must be completed or installed on or after June 1, 2021, and no later than May 31, 2026. The rebate must be applied for no later than 180 days from the date of project completion, which is defined as all equipment being installed, operational and commissioned.

FirstEnergy Phase IV : Lighting

- **Rebate Type: Performance**
- **Eligible Measures:**
 - \$ 0.0X / kWh - **Performance Based**
 - Linear Fluorescent
 - T8 replacing existing T8 lamps or higher efficiency than existing
 - LED Linear
 - LED Fixture – Exterior
 - LED Fixture – Interior
 - LED Refrigerated Case Lighting
 - StreetLighting
 - \$ 0.0X / Watts Controlled
 - Networked Lighting Controls
 - \$ 0.0X / Linear Foot
 - LED Chanel Signage



Incentives Cap: Performance-based lighting incentives (\$/kWh) are capped at the total lighting equipment cost.

The project must be completed or installed on or after June 1, 2021, and no later than May 31, 2026. The rebate must be applied for no later than 180 days from the date of project completion, which is defined as all equipment being installed, operational and commissioned.

FirstEnergy Phase IV : Facility Audit

- **Rebate Type:** **Performance**
- **Eligible Measures:**
 - Industrial process or system audit
 - Facility / Building comprehensive energy (ASHRAE Level II) audit



- **Incentives:**

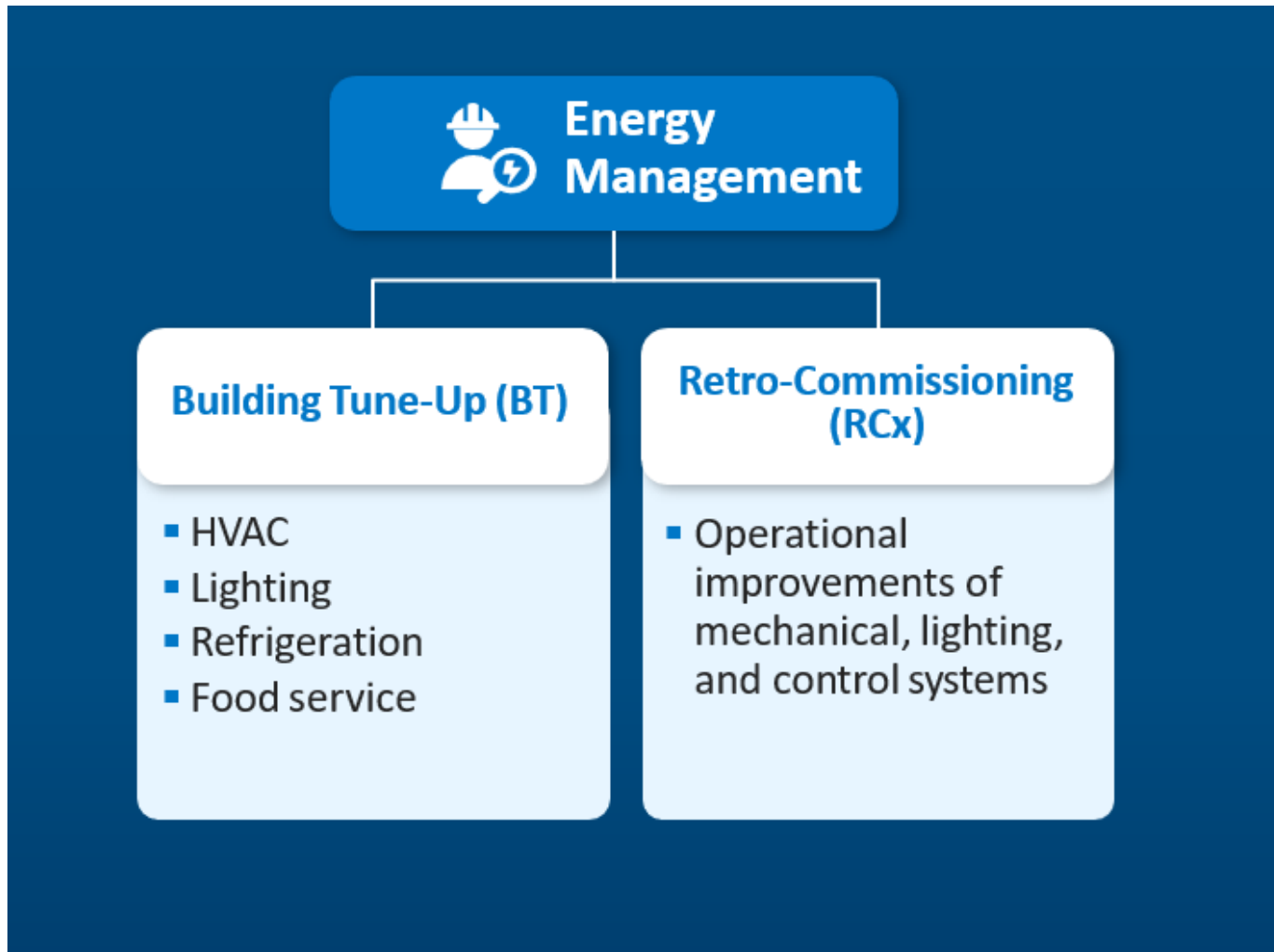
- Two Part Incentive
 - **Audit Cost**
 - Eligible participants will receive an incentive based on annual kWh saved, not to exceed 50 percent of the audit cost or \$10,000, whichever is less, upon completion of the ***installation of qualifying audit recommended measures at the customers' facility.*** (Facility is defined as the building or set of buildings at a single service address, regardless of the number of unique utility accounts associated with the address.)
 - **Measure Incentive**
 - Incentives are paid for the installation of qualifying audit-recommended measures that are incented through FirstEnergy's Pennsylvania utilities' commercial and industrial (C&I) Energy Efficient Equipment Programs and not toward the actual cost of the audit.



FirstEnergy Phase IV : Training

- **Program:** Building Operation Certification (BOC) Training
- **Rebate Type:** **Fixed Fee**
- **Application Process**
- **Training:**
 - Classroom **or** Virtual
 - Instructor: Clean Energy Center at Penn College (PA Based)
 - The Clean Energy Center at Penn College is a nationally-recognized U.S. DOE legacy training center and BPI Test Center that provides training and technical assistance to home energy professionals, commercial building operators, government, utility companies, and other industry partners in the building performance field.
- **Courses:**
 - BOC I
 - Teaches building operators to find practical, low-cost and no-cost efficiency solutions by working with existing systems. BOC Level I provides an overview of the building envelope and reviews the design, operation and maintenance of energy-using systems and equipment.
 - BOC II
 - Prepares building operators to evaluate the operational performance of their buildings with a focus on improving energy efficiency. Through project assignments, operators learn how to collect and analyze building data in order to prepare a building walk-through plan to identify opportunities to improve performance.






FirstEnergy Phase IV Programs



FirstEnergy Phase IV : Building Tune-Up





- **Rebate Type:** **Variable / Project Based**
- **Eligibility Requirements**
 - Comprehensive Projects
 - Pre-Approval Required
 - **No 180 Day Look Back**
- **Incentives:**
 - Up to 80% of Project Cost



End Use Type	Capped % of End Use Cost	\$/kWh	Lighting Savings
 Lighting	50%	\$0.25	> = 85%
	60%	\$0.30	> 75% < 85%
	80%	\$0.35	< = 75%
 HVAC	80%		\$1.850
 Refrigeration	80%		\$0.800
 Food Service	80%		\$0.800
 HVAC Tune Up	80%		\$0.800

FirstEnergy Phase IV : Building Tune-Up

- Rebate Type: **Variable / Project Based**
- Eligibility Measures

End Use Category	Measure
 HVAC	<ul style="list-style-type: none"> ▪ Air Source Air Conditioners ▪ Air Source Heat Pumps ▪ Packaged Terminal Air Conditioner ▪ Packaged Terminal Heat Pump ▪ Water Cooled Air Conditioners ▪ Ductless Mini-Split Heat Pump (DMSHP) ▪ Economizer ▪ Variable Frequency Drive (VFD) Improvements ▪ VSD on Kitchen Exhaust Fan ▪ Heat Pump Hot Water Heaters ▪ Guest Room Occupancy Sensor ▪ HVAC Tune-up
 Lighting	<ul style="list-style-type: none"> ▪ Lighting Improvements ▪ Lighting Controls ▪ LED Exit Signs ▪ LED Refrigeration Display Case Lighting
 Refrigeration	<ul style="list-style-type: none"> ▪ Variable Speed Refrigeration Compressor ▪ Controls: Evaporator Fan Controller ▪ Anti-Condensation Door Heater Controls ▪ EC Motors Retrofits ▪ Evaporator Coil Defrost Controls ▪ Insulate Bare Suction Pipes – Cooler ▪ Controls: Beverage Machine Controls ▪ Controls: Snack Machine Controls
 HVAC	<ul style="list-style-type: none"> ▪ Optimizing HVAC equipment scheduling, setpoints, and system control sequences ▪ Restoring economizer operation ▪ Repairing sensors and other critical system components ▪ Minimizing/eliminating simultaneous heating & cooling ▪ Reducing minimum airflow setpoints



FirstEnergy Phase IV : Building Tune-Up

- Rebate Type: **Variable / Project Based**
- Application Process

Simple 5-Step Process



Consistent process for

- Small and large C&I projects
- Across all operating companies

FirstEnergy Phase IV : RCx

- **Rebate Type: Performance**
- **Eligible Measures:**
 - Existing commercial & industrial buildings
 - Focus on operational improvements
 - Building must be >2 years old
(or at least 2 years after major renovation or commissioning)
- **Incentives:**
 - Two Part Incentive
 - **Audit Cost**
 - Eligible participants will receive an incentive based on annual kWh saved, not to exceed 50 percent of the audit cost or \$10,000, whichever is less, upon completion of the ***installation of qualifying audit recommended measures at the customers' facility.*** (Facility is defined as the building or set of buildings at a single service address, regardless of the number of unique utility accounts associated with the address.)
 - **Measure Incentive**
 - Incentives are paid for the installation of qualifying audit-recommended measures.
 - All verified energy savings for the RCx Program will be paid \$0.10/kWh.



FirstEnergy Phase IV : RCx

- Rebate Type: **Performance / Project Based**
- Eligibility Measures

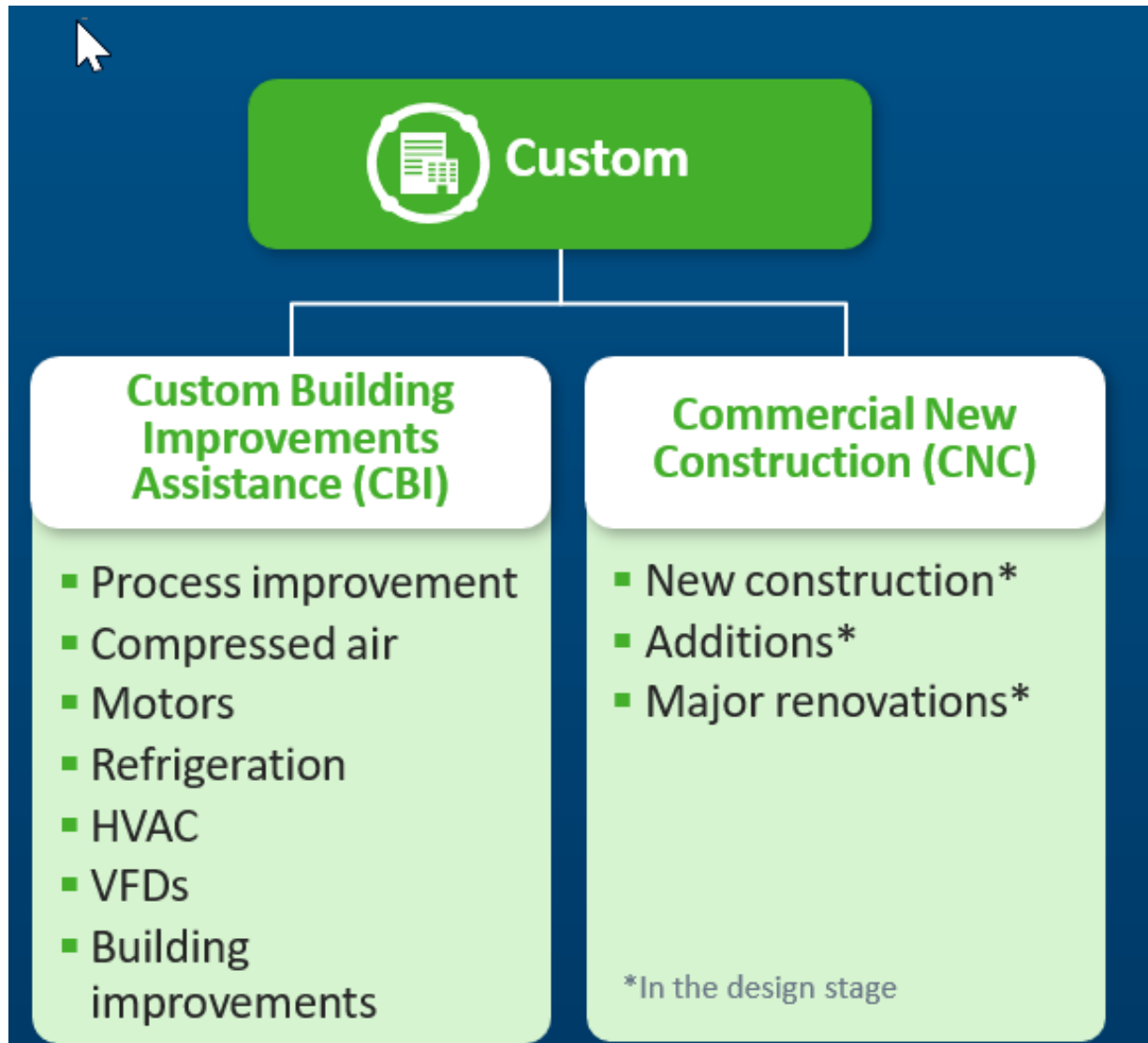


HVAC

- Optimizing HVAC equipment scheduling, setpoints, and system control sequences
- Restoring economizer operation
- Repairing sensors and other critical system components
- Minimizing/eliminating simultaneous heating & cooling
- Reducing minimum airflow setpoints



FirstEnergy Phase IV Programs



FirstEnergy Phase IV : CBI & CNC

FirstEnergy's Commercial New Construction (CNC) & Custom Building Improvements Assistance (CBI) Programs provides:



Complimentary
energy analysis



Incentives to reduce costs
of implementing energy
efficiency measures



Comparison of **energy savings
options** that show ROI of
energy efficient decisions



Access to a **dedicated
team** of knowledgeable,
energy consultants

FirstEnergy Phase IV : CNC

- **Rebate Type: Performance**
- **Eligible Projects:**
 - A new construction, addition, or major renovation project located in the territory of FirstEnergy's Pennsylvania utilities
 - At least 5,000 square feet
 - Interested and committed to evaluating energy efficiency options during design
 - Enrolled into the program **before** HVAC Construction Documents are complete

• Incentives:

- Two Part Incentive
 - **Design Team ²**
 - \$0.02 per kWh saved
 - Applies to projects enrolled before the completion of HVAC Construction Documents
 - Paid at construction completion
 - **Customer Incentive ^{1,2}**
 - \$0.13 per kWh saved
 - \$400 per coincident peak kW saved
 - Paid at construction completion

Program Purpose:

The intent of the program is to provide a **customized, whole-building energy analysis BEFORE** the project is complete with design.

The graphic features the FirstEnergy logo at the top left, with the text 'Met-Ed • Penelec • Penn Power • West Penn Power' below it. The main title is 'COMMERCIAL NEW CONSTRUCTION' in large white letters on a dark blue background. Below the title, it says 'RECEIVE FINANCIAL INCENTIVES FOR YOUR ENERGY-EFFICIENT DESIGN DECISIONS'. The background image shows a modern multi-story building. Below the graphic, there is a detailed description of the program and three icons representing the incentives: Complimentary Energy Design Assistance, Design Team Incentive, and Construction Incentive. At the bottom, there is a section titled 'INCENTIVE STRUCTURE' with a list of incentives and their values.

FirstEnergy's Commercial New Construction (CNC) Program provides complimentary energy design assistance and financial incentives to help offset the cost of implementing energy-efficient strategies for commercial and multifamily buildings. When you make informed decisions on energy-efficient design options that exceed the efficiency standards of a code-constructed building, you and your clients benefit with financial savings year after year.

COMPLIMENTARY ENERGY DESIGN ASSISTANCE
Customized energy model that simulates energy use to identify strategies with the greatest impact and cost-effectiveness.

DESIGN TEAM INCENTIVE
We offer a design team participation incentive to offset design team time associated with program participation at \$200 per kWh saved.

CONSTRUCTION INCENTIVE¹
For the building owner to help lower costs of implementing strategies. Incentives are based on annual electric savings as modeled and verified as installed by FirstEnergy's Pennsylvania utilities.

INCENTIVE STRUCTURE
The incentive structure for the CNC program is below:
• \$0.13 per kWh saved
• \$400 per kW (average coincident) saved
This incentive is paid at construction completion.

¹ To be eligible for incentives, all lighting must be Design-Light Construction (DLC) or Energy Star listed, and all fan service equipment and appliances must be Energy Star rated.
² Coincident peak selection: June 1st - August 31st, 2 - 8 p.m. non-holiday weekdays.

¹ Customer incentives are capped at the lesser of 75% of the incremental cost of qualifying energy efficiency measures or \$500,000.

² Incentives are up to 75% of the cost difference between standard and high efficiency measures.

FirstEnergy Phase IV : CNC

CNC: When to Enroll

Earlier Enrollment = Greater Savings Opportunities

Best Time to Start

- Early in design
- Before decisions on energy systems are finalized

Too Late for CNC Program When:

- HVAC Construction Documents are complete
- Equipment has been purchased
- Construction complete
- Building occupied

TRADITIONAL
DESIGN/BID/
BUILD PROCESS



FAST-TRACK OR
DESIGN/BUILD
PROCESS



Commercial New Construction (CNC)
Programs Eligible
(*Willdan*)

Performance Lighting or HVAC
Programs Eligible
(*Franklin Energy*)

FirstEnergy Phase IV : CBI

- **Rebate Type: Performance**
- **Eligible Projects:**
 - An existing building that is heated and cooled and is exploring:
 - Building shell improvements such as wall/ceiling insulation and windows
 - A project scope that impacts multiple, interacting systems (HVAC, lighting, envelope) in the building
 - Preferred: Enrolled into the CBI program before equipment is specified and/or purchased

• Incentives:

- **Customer Incentive** ^{1,2}
 - \$0.08 per kWh saved
 - \$150 per coincident peak kW saved
 - Paid at construction completion

FirstEnergy
Met-Ed • Penelec • Penn Power • West Penn Power

CUSTOM BUILDING IMPROVEMENTS ASSISTANCE

RECEIVE FINANCIAL INCENTIVES FOR YOUR ENERGY-EFFICIENT FACILITY

The Custom Building Improvements (CBI) Assistance Program offered by FirstEnergy's Pennsylvania utilities provides complimentary analysis and financial incentives to help offset the cost of implementing energy-efficient strategies for existing commercial, industrial, government, and institutional buildings. Our program provides you with the tools and incentives to improve your building's energy performance.

COMPLIMENTARY ANALYSIS
Customized analysis shows the energy savings, cost savings, and incentives associated with your energy efficiency plans. Receive results that align with your implementation schedule.

INCENTIVE*
Lower the cost of implementing energy-efficient strategies. Incentives are based on annual electric savings as modeled and verified-as-installed by FirstEnergy's Pennsylvania utilities.

INCENTIVE STRUCTURE
The incentive structure for the CBI program is below:
• \$0.08 per kWh saved
• \$150 per kW (average coincident) saved¹
This incentive is paid at construction completion.

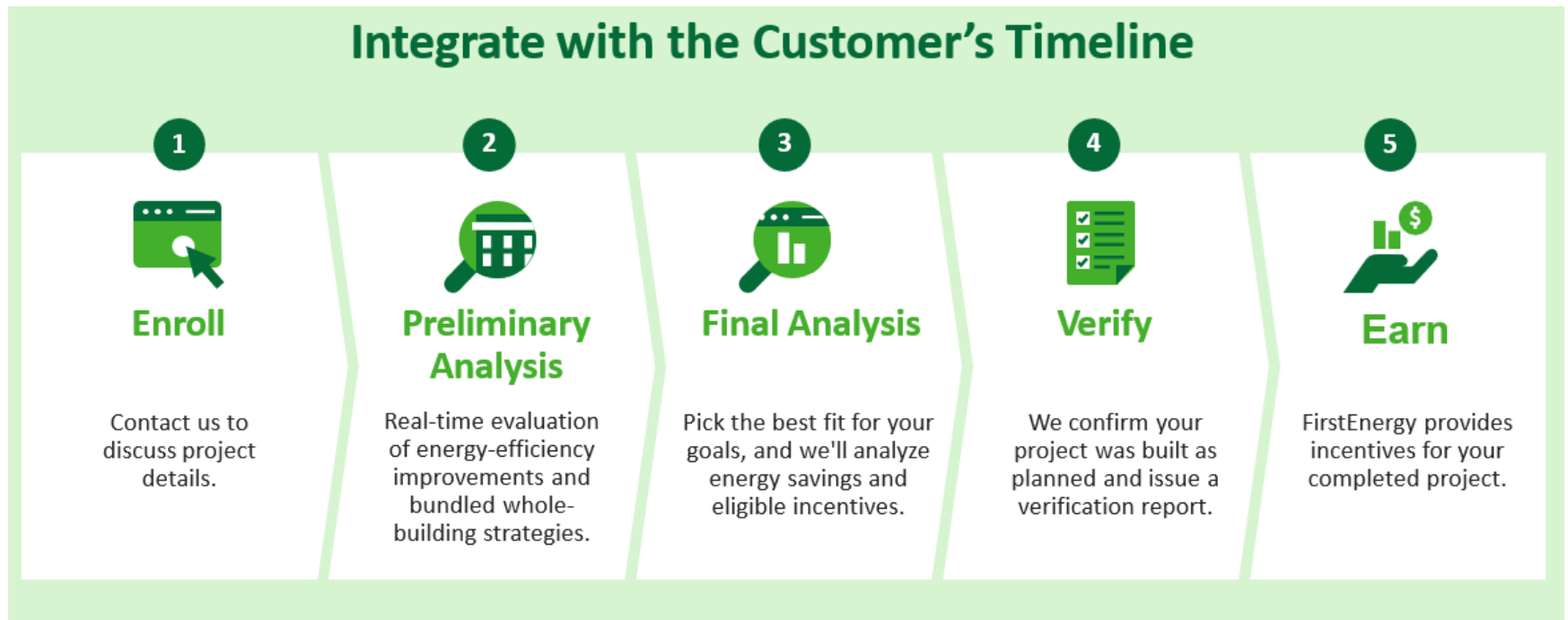
* To be eligible for incentives, all lighting must be DesignLights Consortium (DLC) or Energy Star listed, and all food service equipment and appliances must be Energy Star rated.
¹ Coincident peak window: June 1st - August 31st, 9 a.m. - 6 p.m. local holiday weekdays.

¹ Customer incentives are capped at the lesser of 75% of the incremental cost of qualifying energy efficiency measures or \$500,000.

² Incentives are up to 75% of the cost difference between standard and high efficiency measures.

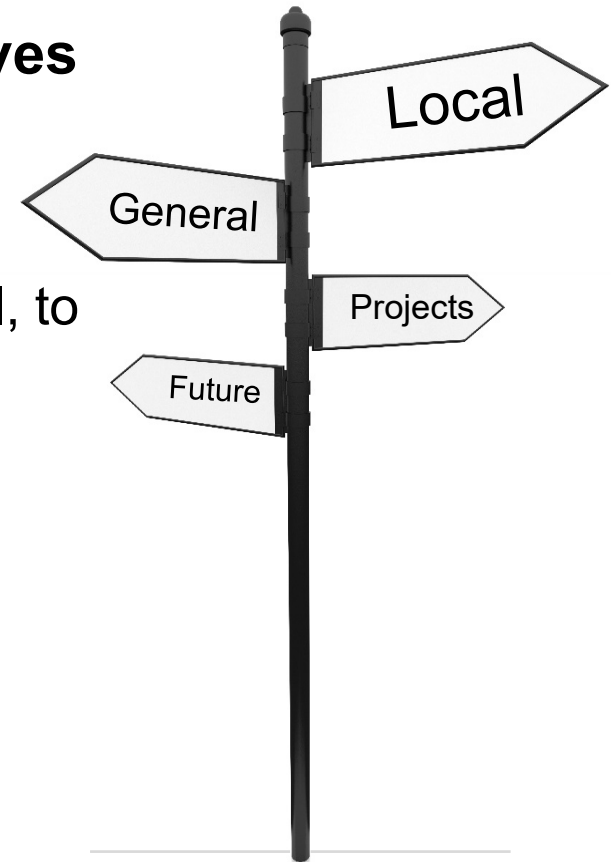
FirstEnergy Phase IV : CNC & CBI

- **Rebate Type: Performance / Project Based**
- **Application Process**



FirstEnergy Phase IV Programs: Flexibility

- **Multiple options for rebates and incentives**
 - Directly to customers
 - Assignment of incentive dollars, all or partial, to a third party
 - May be used to reduce project costs
 - May be used as credit for future projects or equipment purchase
 - May be used to send payments to third party



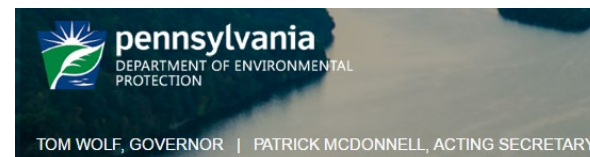
FirstEnergy Phase IV Programs: Funding

- Renewable and sustainable energy funds may provide funding for applicable projects.
- Sustainable Energy Fund PPL
 - <http://www.theseef.org>
- The Reinvestment Fund Sustainable Development Fund PECO
 - <http://trfund.com>
- Met-Ed / Penelec Sustainable Energy Fund Met-Ed / Penelec
Penn Power
 - <http://metedpenelecsef.org>
- West Penn Power Sustainable Energy Fund West Penn Power
 - <http://www.wppsef.org>

FirstEnergy Phase IV Programs: Funding

- Database of State Incentives for Renewables & Efficiency® (DSIRE) website
 - www.dsireusa.org
- PA DEP – Office of Pollution Prevention & Energy Assistance
 - Small Business Advantage Grant Program (for energy efficiency projects)
 - <http://www.dep.pa.gov>
- PennSEF - The Pennsylvania Sustainable Energy Financing (PennSEF) Program
 - <http://freefutures.org/pennsef>

DSIRE®



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FirstEnergy Phase IV Programs: Funding

- PA DCED
 - <https://dced.pa.gov/programs-funding/>
 - Search Tools for Funding



Programs & Funding

If you're seeking funding for a business startup or expansion, a community project or site revitalization in Pennsylvania, DCED offers a variety of programs to help.

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Thank You



Questions & Answers



Thanks to our sponsors and partners!

