

The meeting
will begin in
a few minutes



Energy Efficiency Stakeholder Meeting

October 17, 2024

Agenda

1. Re-cap of Last Meeting
2. New Jersey Energy Efficiency Programs
3. Energy Efficiency Updates
 - NJCEP Updates
 - New Construction Program Update
 - Benchmarking Update
 - Technical Reference Manual (TRM)
 - Utility Updates
 - Regulatory Updates
 - Triennium 2 Filings Review
4. Guest Presentation – Campus Decarbonization Case Study
5. General Q&A
6. Items of Interest
7. Annual EE Stakeholder Survey Announcement
8. Next Meetings

Recap of Last Month

September Monthly Recap

What we covered:

- ✓ NJCEP Updates
 - ✓ NJCEP New Construction Program
 - ✓ Benchmarking Update
 - ✓ Evaluation, Measurement, and Verification Updates
- ✓ Utility Updates
- ✓ Regulatory Updates
 - ✓ Triennium 2 Filings Review
- ✓ Guest Presentation: Storage Technologies
- ✓ Q&A

New Jersey Energy Efficiency Programs

www.NJCleanEnergy.com/EEP

NJBPU and NJCEP Administered Programs



- New Construction (residential, commercial, industrial, government)
- Large Energy Users
- Energy Savings Improvement Program (financing)
- State Facilities Initiative*
- Local Government Energy Audits
- Combined Heat and Power, & Fuel Cells

* State facilities are also available for utility programs

Utility Administered Programs



- Existing Buildings (residential, commercial, industrial, government)
- Efficiency Products
 - Lighting & Marketplace
 - HVAC
 - Appliance Rebated
 - Appliance Recycling

NJBPU and NJCEP Administered Programs



New Jersey's Clean Energy Program

Energy Efficiency Updates



More NJCEP Information

Quarterly Newsletter:

NJCleanEnergy.com/NEWSLETTER

Clean Energy Program Filings:

NJCleanEnergy.com/FILINGS

Clean Energy Program Monthly Progress to Goal Report:

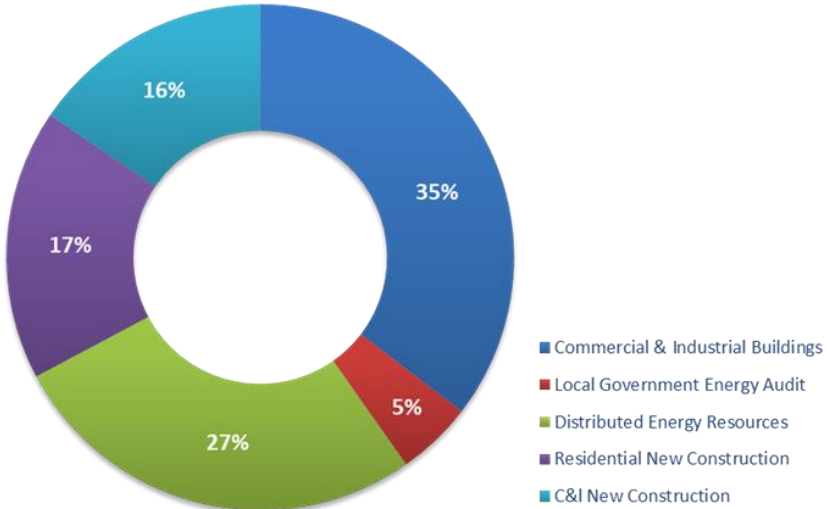
NJCleanEnergy.com/EE - Meeting Materials Archive

The screenshot shows the NJCEP website interface. At the top, there is a navigation bar with links for Home, Energy Efficiency, Electric Vehicles, and Renewable Energy. Below this, the main content area is titled "Energy Efficiency Meeting Materials Archive" for the year 2024. A table lists meeting dates, agendas, and materials. A callout box points to the "June 20, 2024" entry, stating: "Progress to Goals Report is posted with post-EE Stakeholder Meeting resources following this meeting".

Meeting Date	Meeting Agenda	Meeting Materials
June 20, 2024	Agenda	Slide Deck, Webinar Recording & PTG Report
May 16, 2024	Agenda	Slide Deck, Webinar Recording & PTG Report
Apr 18, 2024	Agenda	Slide Deck, Webinar Recording & PTG Report
Mar 21, 2024	Agenda	Slide Deck, Webinar Recording & PTG Report
Feb 15, 2024	Agenda	Slide Deck, Webinar Recording & PTG Report
Jan 18, 2024	Agenda	Slide Deck, Webinar Recording & PTG Report

Budget Break-down by Program (TRC Managed Programs)

FY25 (first 6-month) Incentive Budget: \$109,019,258



Energy Efficiency Programs FY25

NJCEP

Closed

- Residential Products & HVAC
- Residential Existing Homes
- Direct Install

Closing Out

- C&I Buildings (existing buildings)
 - SmartStart Retrofit EB
 - Pay for Performance EB
- School & Small Business Stimulus Program (federally funded)

NJCEP/TRC Managed

Open

- New Construction
Was: Residential New Construction, SmartStart New Construction, Pay for Performance New Construction, Customer Tailored Energy Efficiency Pilot New Construction
- Large Energy Users
- Local Government Energy Audit
- Distributed Energy Resources

BPU/Utility Managed

Open

- Comfort Partners



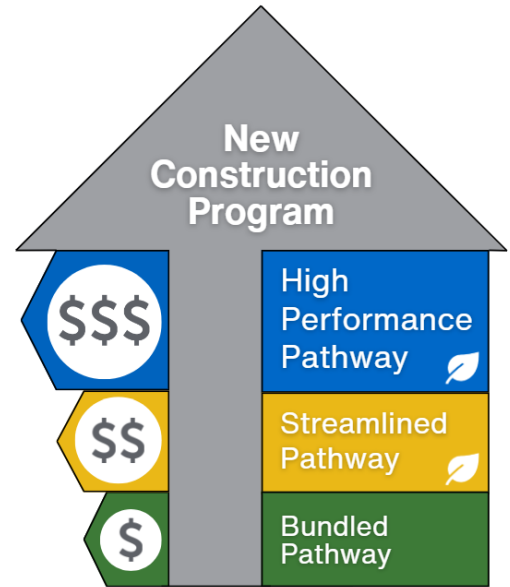
Coming Soon: New Construction Program

ABOUT THE PROGRAM Three pathways to fit your needs to achieve greater energy savings

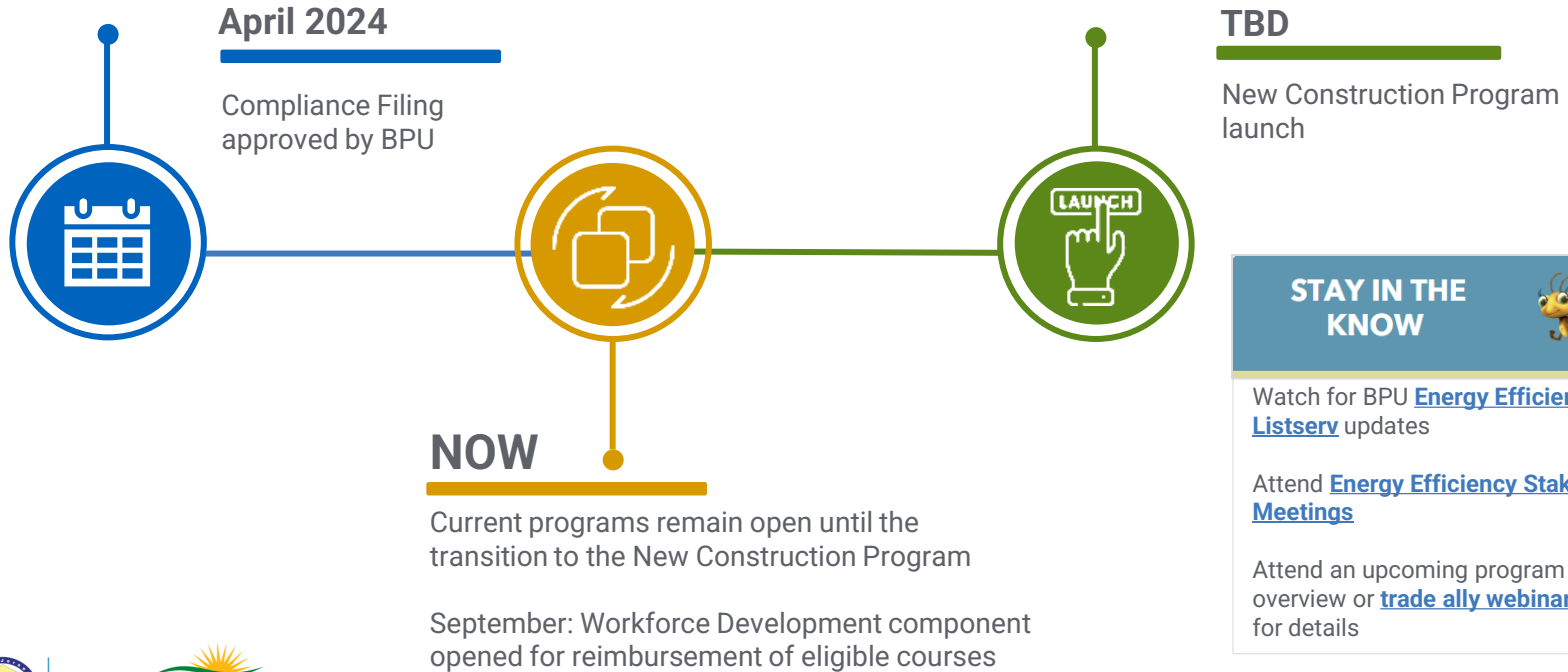
INCENTIVES Based on selected pathways and size

WHO IS ELIGIBLE All new construction buildings or eligible major renovation projects

ADDITIONAL OPPORTUNITIES Incentives for energy efficiency beyond code requirements, encouraging greater energy savings



New Construction Program Timeline



Benchmarking Update

- The submission 90-day grace period for the current 2023 reporting year ended on October 1, 2024
 - Submissions made after this date will be deemed as noncompliant for the 2023 reporting year
- Information on the 2025 benchmarking year for reporting energy and water data from January 1, 2024 through December 31, 2024 will be available in the first quarter of 2025 on the following website: <https://nj.beam-portal.org/helpdesk/>
 - Building owners and operators whose buildings meet the benchmarking criteria will receive a notification for the next reporting year through email or postal mail in the first quarter of 2025
- A helpdesk will remain available between these reporting periods to answer any questions about the benchmarking program and Portfolio Manager
 - To submit an inquiry to the Helpdesk, please visit: <https://nj.beam-portal.org/helpdesk/> and select "New Ticket" or call 888-533-4571

TRM Update

Status of the 2024 Update to the NJ TRM 10-17-24

SWE Leads

- Pete Jacobs
- Lisa Skumatz
- Ralph Prah

2024 TRM Update Summary

- 2024 TRM Update based on the 2023 Triennial TRM
- Updates include:
 - Error corrections and editorial changes
 - Updates to selected measure sections
 - Addition of new measures
 - Incorporation of PY2 Evaluation results
- 2024 TRM Update was approved for Stakeholder review by the EM&V Working Group

Stakeholder Review of 2024 TRM Update

- 2024 TRM Update will be ready for Stakeholder review shortly
- A link to the document will be posted to the List Serv
- Instructions for submitting comments will be included in the cover memo

Utility Updates

Energy Efficiency Updates



Utility Updates

NJ Energy Efficiency Stakeholder Meeting

Kyle Haddock, Rockland Electric

on Behalf of The NJ Joint Utilities – October 17, 2024



Antitrust Statement

- The New Jersey Utilities are committed to full compliance with all laws and regulations as well as maintaining the highest ethical standards. We adhere to all federal and state antitrust laws.
- Coordination of Energy Efficiency programs by the utilities is in response to BPU requirements set forth in the 1st and 2nd triennium EE Framework Orders.
- The utilities do not engage in price fixing or any other anticompetitive behavior.

Utility Updates

- **Status of the Extension Requests for the First Triennium (to cover 7/1/2024-12/31/2024)**
 - Extensions were approved for all Utilities and programs continue
- **All Utilities submitted their filing for the Second Triennium (1/1/2025-06/30/27)**
 - All utilities continue to work with the parties towards settlement
 - Expect cases to be considered at the October 23rd agenda meeting
 - Trade Ally outreach to begin after approval
- **Joint Utility Contractor Calls**
 - Next Residential HPwES contractor call scheduled for October 31
 - Next HVAC contractor call scheduled for November 7
- **Appliance Recycling**
 - Utilities are restarting the appliance recycling program; some utilities have restarted the programs, and others will have the program up and running soon
 - PSE&G relaunched its Appliance Recycling program on July 22, 2024

Utility Updates

Current Campaigns

- PSE&G
 - External communications promoting the various smart thermostat sales on the PSE&G Marketplace
 - Bill inserts, MyEnergy Postcard , MyEnergy Challenge Email, PSEG.com Homepage Banner, Social media on PSEG's Facebook and Instagram
- NJNG
 - Omnichannel marketing approach communicating promotion to residential customers using historical marketplace purchase data and propensity modeling for further personalization and segmentation.
 - Primary channels: marketplace banner, direct mail postcard, social ads, social posts, drip emails and customer newsletter
- ETG, and SJG are offering promotions on their Efficient Products marketplaces
 - www.elizabethtowngasmarketplace.com
 - www.southjerseygasmarketplace.com
- JCPL
 - Multiple marketing initiatives being implemented with a focus on all electric customers for the extension period only
- Rockland Electric
 - Bill insert on the heels of Efficiency Day - promoting all residential programs, seasonal emails, outreach, and social media campaign

Utility Updates- community events

- **Community Events**
 - ACE community events scheduled for October:
 - Newport Fire Department Open House on 10/8
 - Total Turf Senior Expo on 10/9
 - Camden Annual Resource Fair on 10/10
 - ACE Recycling Event on 10/12
 - Annual Harvest Festival on 10/19
 - Back Home Day on 10/19
 - JCPL is participating in the following community events:
 - Concordia Presentation in Monroe Twp 10/9
 - Fall Festival in Newton 10/12
 - Table event at Home Depot Brick 10/11
 - New Jersey Natural Gas (NJNG) will participate in the following community events:
 - Speaking with NJ School Board Association with Sustainable Jersey on October 22
 - Lead New Jersey event to raise awareness of Energy Assistance and Energy Efficiency Programs for low-and moderate-income customers on October 22
 - Exhibiting at the New Jersey Air Conditioning Contractor Association Summit on October 24-25
 - South Jersey Gas will participate in the following community events:
 - Hammonton Green Day Festival on November 2
 - New Jersey Air Conditioning Contractor Association Summit on October 24-25
 - Elizabethtown Gas will participate in the following community event:
 - New Jersey Air Conditioning Contractor Association Summit on October 24-25

NJNG Updates

Annual Energy Assistance Days

- Nine (9) Event Dates remain of local events throughout our service territory in September and October to help customers apply for Energy Assistance programs, Comfort Partners and the Moderate-Income Weatherization Program.
 - Representatives from NJNG and state-designated agencies guide customers through the eligibility and application process
- Events spread out through Monmouth, Ocean and Morris County. Specific dates, locations and times can be found [here](#) or follow NJNG on social media for more information and for posts that can be shared.



Elizabethtown Gas and South Jersey Gas Updates

Utility Assistance Events

- Dates remain of local events throughout the service territories in October to help customers apply for Energy Assistance programs, Comfort Partners and the Moderate-Income Weatherization Program.

ETG

- 10/21 - Perth Amboy Pay Center 8:30-4:00
- 10/26 - Cranford Community Center 11:00-2:00
- 10/28 - Elizabeth Pay Center 8:30-4:00
- 10/30 - New American Resource Center Pop Up 1:00-4:00

SJG

- 10/21 - Winslow Township Municipality 2:00-6:00
- 10/28 - Orchards Family Success Center 11:00-2:00

For more information about utility bill assistance programs, visit the websites:

southjerseygas.com/residential/existing-customers/utility-bill-assistance

elizabethtowngas.com/residential/existing-customer/utility-bill-assistance

Rockland Electric Updates

Program Updates

- Clean Heat Pilot Triennium I (building decarbonization)
 - Approach A – Prescriptive approach - LTO \$2000 for full load
 - Approach B – Full load measured savings approach with whole home weatherization
- Energy Assistance -
 - For more information about utility bill assistance programs, visit: [Energy Assistance](#)
 - Local energy assistance events to be scheduled throughout the winter
- *Coming soon for the holidays* - **Free Shipping** at myorustore.com & new product updates
- Triennium II – Programs Update Event – TBS for Trade Allies and Distributors
 - Interested in attending or being added to our contact list, email haddockk@oru.com
- Sponsor and attending - New Jersey Air Conditioning Contractor Association Summit on Oct. 24-25

Regulatory - State & Federal

Energy Efficiency Updates



Triennium 2 Filings Review (Docket No. QO23030150)

- February 26, 2024 – Presiding Commissioners’ Orders
 - Summaries of proposed utility programs, budgets, cost recovery mechanisms
 - Rulings on motions to intervene and participate
- **New Jersey Natural Gas Company (QO23120868)**
 - Intervenors: EEA-NJ, NJLEUC, NRDC, NJPEEC, Sierra Club
 - Participants: Uplight, Joint Utilities
- **Elizabethtown Gas Company (QO23120869)**
 - Intervenors: EEA-NJ, NJLEUC
 - Participant: Uplight, Joint Utilities
- **South Jersey Gas Company (QO23120870)**
 - Intervenors: EEA-NJ, NJLEUC
 - Participant: Uplight, Joint Utilities
- **Atlantic City Electric Company (QO23120871)**
 - Intervenors: EEA-NJ, NJLEUC
 - Participants: Convergent, CPower, Google, Uplight, Joint Utilities
- **Jersey Central Power & Light Company (QO23120872)**
 - Intervenors: EEA-NJ, NJLEUC
 - Participants: Convergent, CPower, Google, Joint Utilities
- **Public Service Electric & Gas Company (QO23120874)**
 - Intervenors: EEA-NJ, NJLEUC, NRDC, NJPEEC, Sierra Club
 - Participants: Convergent, CPower, Google, United, Uplight, Joint Utilities
- **Rockland Electric Company (QO23120875)**
 - Intervenor: EEA-NJ
 - Participant: CPower, Joint Utilities

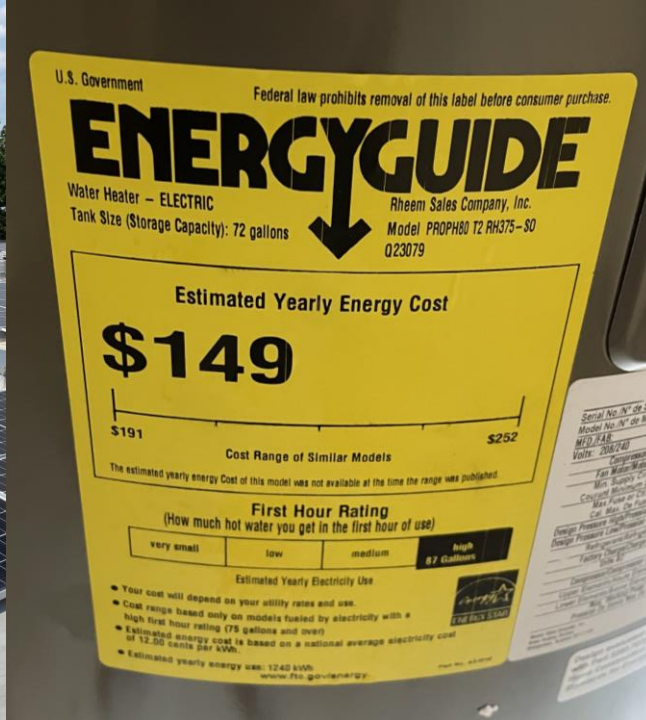
Triennium 2 Filings Review (Docket No. QO23030150)

- Status:
 - Prehearing orders: procedural schedules, issues to be resolved
 - PSE&G: March 28
 - ACE, JCP&L, RECO: April 12
 - NJNG, SJG, ETG: April 23
- Further commissioner orders suspending procedural schedules during settlement: <https://www.nj.gov/bpu/agenda/presidingcommissionerorders.html>
- Settlement conferences (March–July 2024) – budgets, programs, incentives
- Public hearings (May–June 2024)
- Board action (fall 2024)
- Triennium 2 starts January 1, 2025

Guest Presenter

TCNJ Campus Decarbonization Case Study
Paul Romano, RA, CEM





2007

TCNJ has had a long standing commitment to carbon neutrality having been one of the first institutions in New Jersey to sign the American College and University Presidents Climate Commitment in 2007. Since then, the college has taken numerous steps to reduce its carbon footprint including being among the first higher education institutions in the state to install photovoltaics, electric vehicle charging stations, geothermal heating and cooling systems, and fuels cells on campus.

2040

Summary Description of the TCNJ Campus (1 of 2)

- We are a campus of approximately 300 contiguous acres with some 40 buildings with nearly 3 million gross square feet of conditioned space including a broad diversity of building uses serving a student enrollment of approximately 7,400 full time students.
- We operate and maintain a district tri-generation energy system that meets nearly 90% of our thermal loads and approximately 80% of our electrical demands.
- Our combined heat and power system is composed of a 5.2 MW dual fueled turbine generator and heat recovery steam generator supplemented by steam boilers. The steam is used throughout the year to both heat and cool our buildings using both steam turbine and electric chillers.

Summary Description of the TCNJ Campus (2 of 2)

- We are served by PSE&G with both interruptible natural gas and 26.2 kV power provided by two separate feeders. The natural gas is supplemented by diesel during interruption events.
- We recently completed a 2.5 MW DC (1.6 MW AC) photovoltaic system installed on roofs of five buildings and parking canopies procured through a power purchase agreement.
- We produce our own electricity for nearly a third of the cost of the utility supplied power with approximately 15% lower emissions than the regional grid.

Power Sources Available to Us

Combined Heat and Power (CHP) Tri-Gen Plant

- 5.2 MW dual fueled turbine generator and heat recovery steam generator

Public Utility PJM Grid

- (2) 26.2 kV Electrical Feeders

Renewables

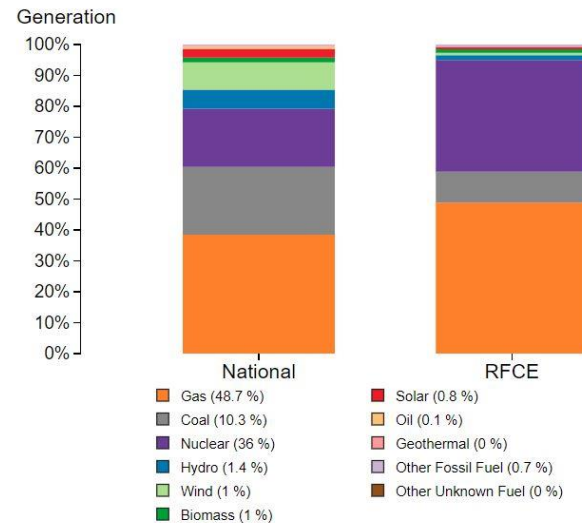
- 2.5MW solar installation on both surface parking lots and the roof of several buildings by means of a Power Purchase Agreement.

Storage

- Fuel Oil (2) 30,000 Gallon Low Sulfur Diesel #2 Oil Tanks on site
- 7 days contracted fuel supply

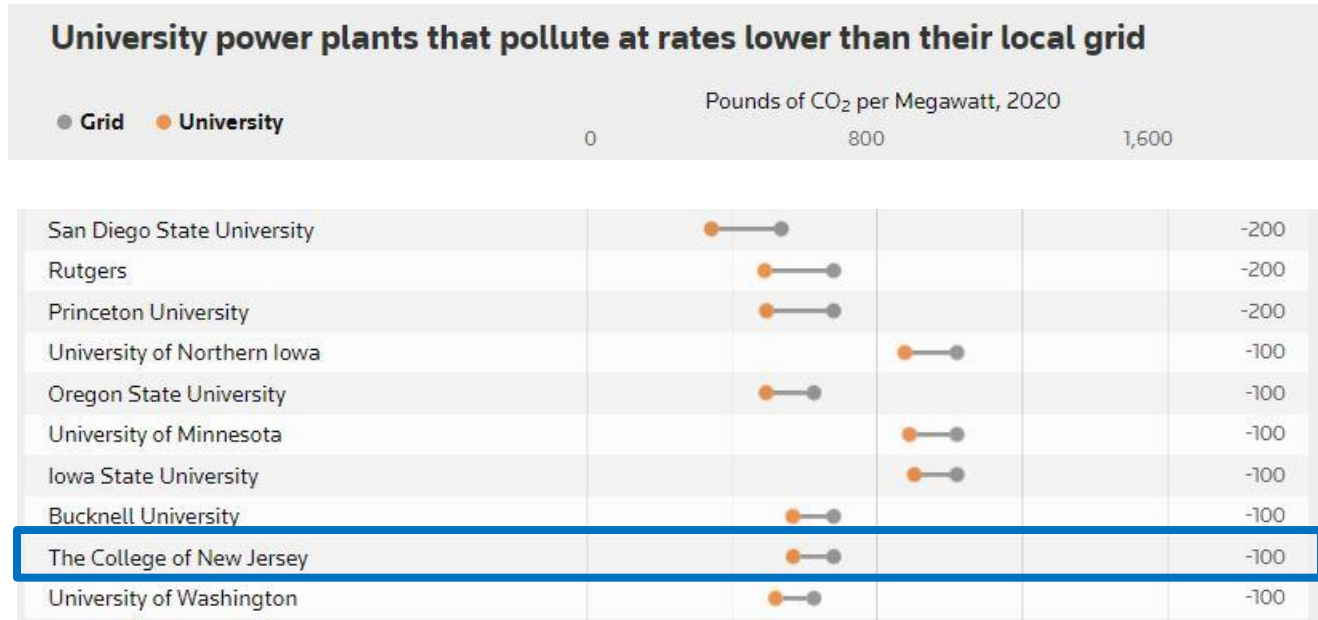
Fuel Mix

This chart compares fuel mix (%) of sources used to generate electricity in the selected [eGRID subregion](#) to the national fuel mix (%).



Fuel (RFCE Generation %)

Associated Power Source Emissions



“U.S. Colleges Talk Green. But they have a dirty secret.” Reuters Special Report, Tim McLaughlin, November 11, 2022, <https://www.reuters.com/investigates/special-report/usa-pollution-universities/>

Energy Efficiency, Decarbonization, and Resiliency are Complimentary Efforts

Bridging the Operational and Capital Budget Divide

Our challenge is we needed a plan that would allow us to plan a strategic retreat from these legacy systems while transitioning to a new no to low carbon system in a financially sustainable manner. This inherently favors those efforts that demonstrate immediate savings that when proven serve to build confidence in such investments and which may be leveraged to assume larger projects. The challenge is to designate a portion, if not all, these savings to future investments. A plan will serve to maintain this focus.

NJ BPU Higher Education Decarbonization Pilot

Decarbonizing a campus takes...



Universities across New Jersey are working to decarbonize their campuses.

- **Rutgers:** net-zero emissions by 2040
- **Princeton:** net-zero emissions by 2046
- **Rider College:** carbon neutral by 2050



Incentives

Up to **\$5M** available per applicant:

- Reimbursements of up to **100%** of the cost for the development of a decarbonization plan
- Reimbursements of **\$1000**/ton of CO₂ equivalent reduced, up to **75%** of total project cost

Get started on the path to zero emissions!

Contact us to learn more about the program application, rules, regulations, and timing.

866-NJSMART

LEUPDecarb@NJCleanEnergy.com

www.NJCleanEnergy.com/LEUPDecarb

Opportunistic vs Strategic Actions

“Fortune favors the prepared mind” Louis Pasteur

Persistence

We had previously established the need for a plan but were derailed by the pandemic having released a RFP for such a decarbonization plan in 2019 only to receive proposals in April of 2020. In 2021 the college hired myself as its first sustainability director which afforded us the opportunity to build upon the prior efforts and establish a vision through engagement with the community. This here at the college is done through our Environmental Sustainability Council which is a part of our system of shared governance with representation from students, staff, faculty, and administrators.

Opportunity

When we learned of the new Higher Education Decarbonization Pilot program late last year we were able to dust off the RFP we had released in 2019 and adapt so as to be more pragmatic to serve as an actionable roadmap for our efforts.

Current TCNJ Carbon Reduction Initiatives

- Energy Efficiency - Large Energy Users Program [LEUP]
- Fuel Conversion Measures
(e.g. EV Charging, Heat Pump Hot Waters)
- Existing Central Utility Plant Efficiency Measures [TBD]
(e.g. Turbine Inlet Cooling, Thermal Energy Storage)
- New Packaged Combined Cooling, Heat & Power [CHP]
serving buildings beyond current thermal utility district
- Fleet Vehicle Fuel Conversion and Trip Reduction [PSE&G/DEP]
- Solar District CUP Campus as a Living Lab (CaLL)

Large Energy User Program (LEUP) Energy Conservation Measures

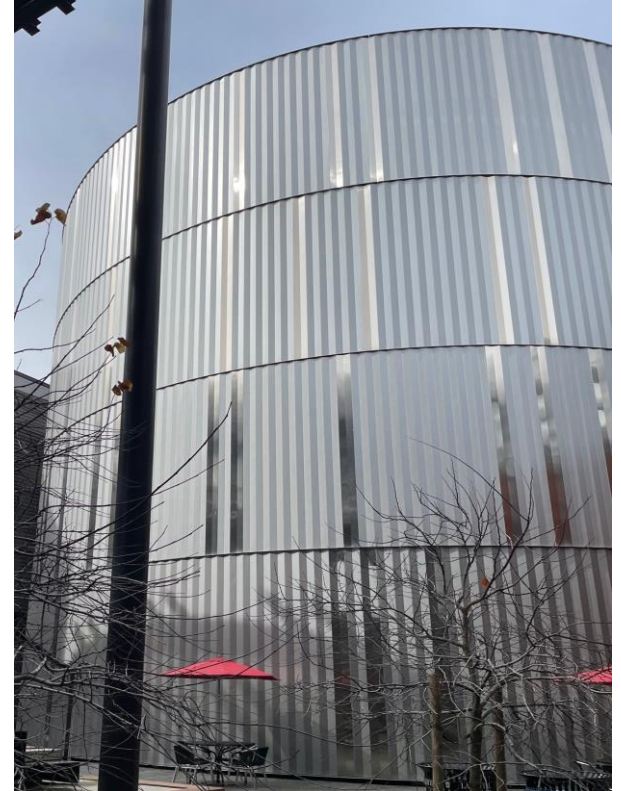
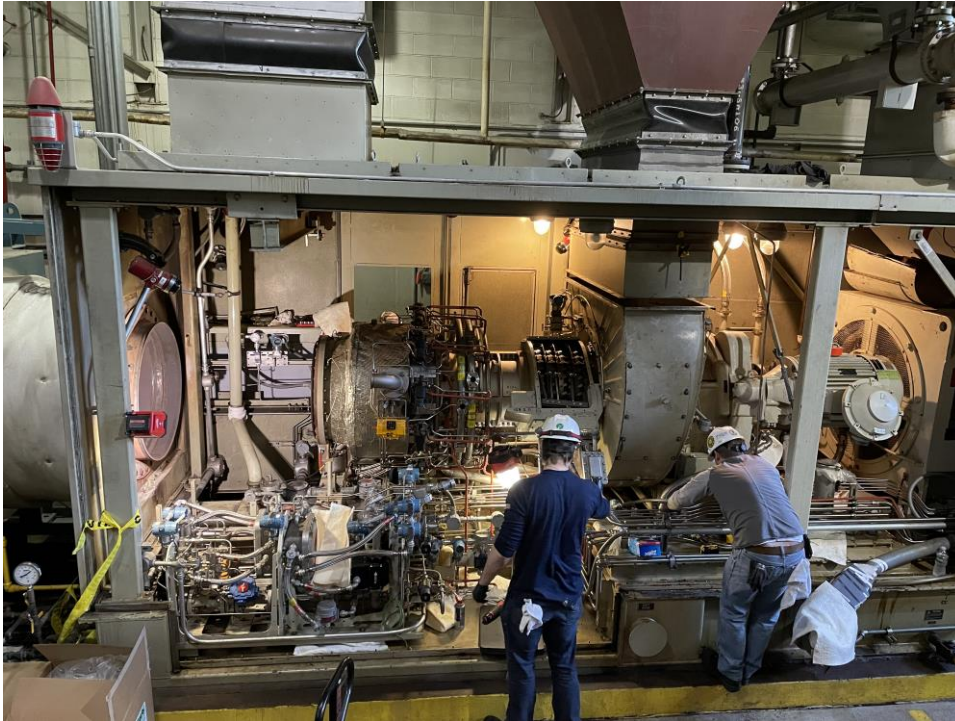
ECM EMISSIONS SAVINGS SUMMARY					
ECM NO.	BUILDING	DESCRIPTION	CO2 EMISSIONS (LBS)	NOX EMISSIONS (LBS)	SO2 EMISSIONS (LBS)
ECM #1	Campus Summary	Lighting Upgrade	5,787,476	1,281	3,060
ECM #2	Campus Summary	Mechanical Insulation	76,686	60	0
ECM #3	Campus Summary	Premium Motors	51,039	12	26
ECM #15	Campus Summary	Condensing Boilers	46,437	37	0
ECM #16	Campus Summary	Receptacle Controls	22,868	5	12
ECM #17	Campus Summary	Controls Upgrade	307,201	169	68
ECM #18	Campus Summary	Server Room	26,685	6	14
ECM #19	Campus Summary	Water Conservation	23,213	18	0
ECM #20	Campus Summary	Condenser Water Optimization	178,680	41	93
ECM #21	Campus Summary	CHW Variable Pumping	0	0	0
	CAMPUS TOTAL		8,786,902	2,566	4,065

Fuel Conversion Measures

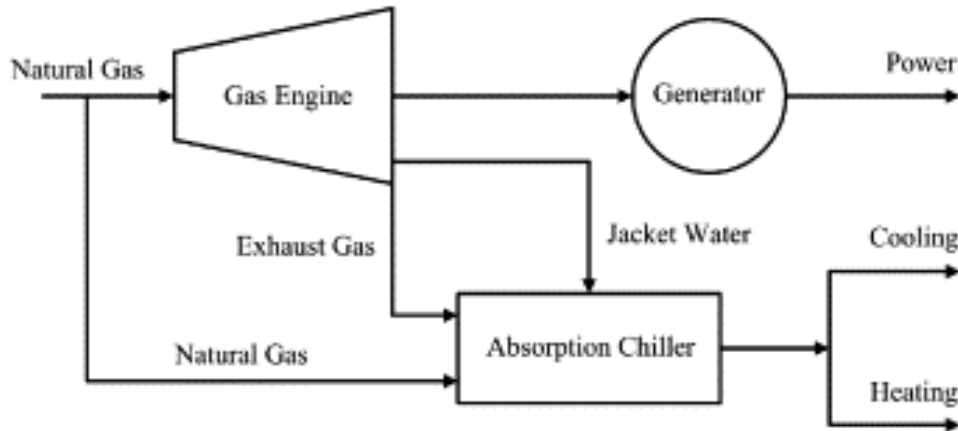
(e.g. EV Charging, Heat Pump Hot Waters)



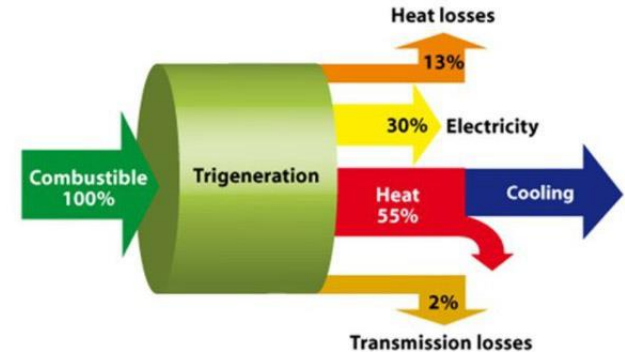
Central Utility Plant (CUP) Measures (e.g. Turbine Inlet Cooling and TES)



New Combined Cooling, Heating and Power (CCHP) System serving buildings not presently on district energy utilities



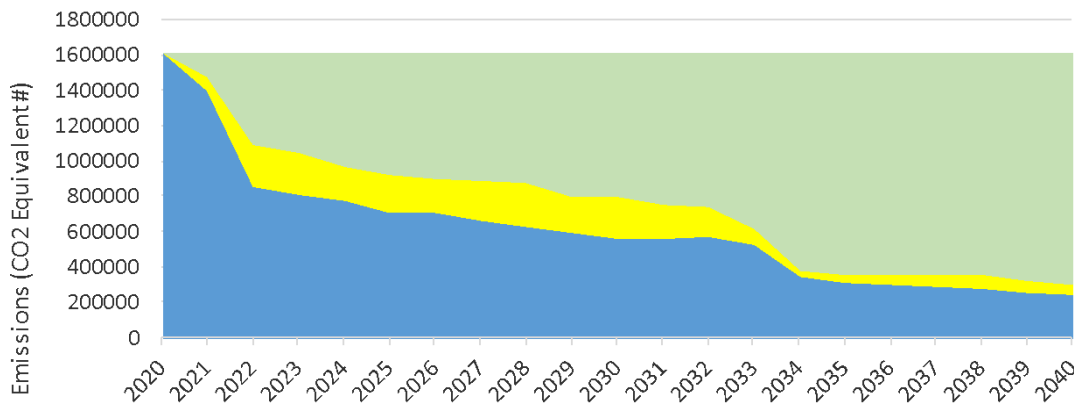
- Generator - 35 – 40%
- Co-generation system - 50 – 70%
- Tri-generation system - 80 – 90%





Total Fleet Emissions

“Right-Sizing” of the fleet, by identifying how many vehicles are required and are they well suited for the task at hand



Replacement of conventional internal combustion engine (ICE) vehicles with both hybrid and electric vehicles when practical and cost effective

Solar District Cup

Campus as a Living Lab (CaLL)

Solar District Cup

A multidisciplinary collegiate competition that challenges student teams to **DESIGN** and **MODEL SOLAR-PLUS-STORAGE SYSTEMS** for multiple buildings on a local electrical distribution network—at a campus, across a development, or in a district.





Discussion

General Q&A

To submit questions in advance for next month: EnergyEfficiency@bpu.nj.gov



Items of Interest

Annual EE Stakeholder Survey



PURPOSE

To identify topics of interest for guest presentations at 2025 meetings

TIMELINE

Survey will be open for two weeks

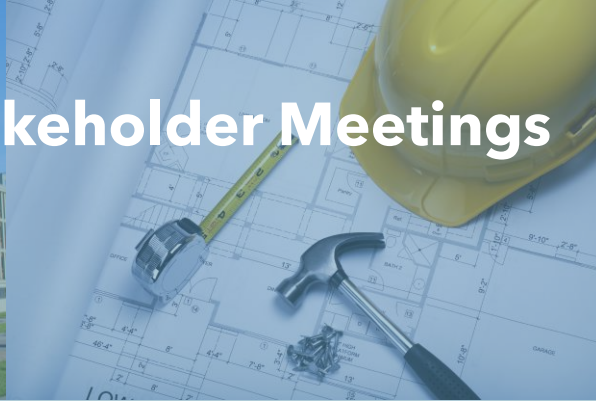
WHERE TO FIND

Link will be shared via EE Stakeholder Listserv

Next Meeting

Energy Efficiency Stakeholder Meetings

www.NJCleanEnergy.com/EE



3rd Thursday of the Month, 1:00 - 2:30 pm

- ✓ **No November meeting**
- ✓ December 19, 2024

Guest presenter: Mike Ambrosio
TRC
NJCEP Year In Review

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NEW JERSEY'S CLEAN ENERGY PROGRAM

Our programs are leading the nation in clean energy investments with one thing in mind - YOU!

Our statewide programs offer incentives, programs, and services that benefit New Jersey residents, businesses, educational and non-profit entities, and government entities to help them save energy, money, and the environment.

Energy Saving Tips

Make it a priority to stay energy-efficient during the spring, summer, fall and winter!

These energy savings tips can not only lower your utility bills, but also ensure a sustainable clean energy future to generations to come.

Energy Assistance

Discover free assistance programs in New Jersey, such as Comfort Partners which help to lower your utility bills.

Program Details

- Benchmarking FAQs & Assistance
- Find a Program

Learning Center

NJ CELC

Energy Master Plan

State of New Jersey Energy Master Plan

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