



# Energy Efficiency Committee Meeting

September 29, 2021

# Agenda

1. Welcome
2. Recap: Last Month
3. Current Program Updates
  - a) BPU Updates
  - b) Utility Company Updates
4. Working Group Updates
5. NJIT Presentation: Research on Opportunistic Retrofits
6. General Q&A
7. Items of Interest
8. Next Meeting

**Welcome**



# Recap: Last Month



# August Meeting Recap

## What we covered:

- ✓ Transition information on NJCEP website
- ✓ NJCEP Program Updates
- ✓ Working Group Updates
- ✓ Q&A

# Post-Transition Energy Efficiency Programs



## Program areas staying with NJCEP:

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

# Post-Transition Energy Efficiency Programs



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## Program areas served by the Utilities:

- Existing Buildings (residential, commercial, industrial, government)
- Efficient Products
  - HVAC
  - Appliance Rebates
  - Appliance Recycling

### New Programs & Features:

Dedicated multi-family program  
More financing options  
Quick home energy check-ups

# Post-Transition Energy Efficiency Programs



**Continues to be co-managed by the Utilities  
and the BPU**



Visit our transition website:

[www.NJCleanEnergy.com/TRANSITION](http://www.NJCleanEnergy.com/TRANSITION)

FAQs will be  
updated  
regularly

# Visit our transition website:

www.NJCleanEnergy.com/TRANSITION

The screenshot displays the website for the New Jersey Clean Energy Program. At the top, there is a navigation bar with links for Press Room, Library, FAQs, Calendar, Newsletters, Contact Us, and Site Map. Below this is a search bar. The main navigation menu includes HOME, RESIDENTIAL, COMMERCIAL INDUSTRIAL LOCAL GOV & MULTIFAMILY, and RENEWABLE ENERGY. The central content area features the title "New Jersey's Energy Efficiency Program Transition" and a sub-header "Transición del Programa de Eficiencia Energética de Nueva Jersey". The text explains that in 2018, Governor Murphy signed a landmark law to overhaul the state's clean energy systems. A section titled "Program areas staying with NJCEP" lists "New Construction (residential, commercial, industrial, ...". To the right, a "Program Updates" section lists "FY21 Notice of Elimination of Enhanced Incentives for Prescriptive Lighting" and "FY21 Commercial & Industrial". A prominent blue banner reads "FREQUENTLY ASKED QUESTIONS". Below this, a question asks "Why will some energy efficiency programs now be managed by the utility companies?". The answer states that the transition is in accordance with the Clean Energy Act of 2018. A list of programs to be handled by utilities includes those relying on contractors, those using customer data, and those based on existing utility systems. A second question asks "Which energy efficiency programs will continue to be administered by NJCEP, and which will be administered by the utilities?". The answer states that NJCEP will continue to administer new construction programs for commercial and industrial (C&I), residential, and government customers, as well as other programs like Combined Heat & Power & Fuel Cells, and Solar & Community Solar Programs.

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NEW JERSEY'S CLEAN ENERGY PROGRAM

BOARD OF PUBLIC UTILITIES

REBATES AND PROMOTIONS

NJCEP POLICY UPDATES & REQUEST FOR COMMENTS

CALENDAR

CLEAN ENERGY STAKEHOLDER GROUPS

GRANTS & SOLICITATIONS

TRAINING RESOURCES

► PRESS ROOM

► PUBLIC REPORTS AND LIBRARY

CONTACT US

## New Jersey's Energy Efficiency Program Transition

Transición del Programa de Eficiencia Energética de Nueva Jersey

In 2018, Governor Murphy signed into law the landmark legislation known as the Clean Energy Act. The law called for a significant overhaul of New Jersey's clean energy systems by building sustainable infrastructure in order to fight climate change and reduce carbon emissions, which will in turn create well-paying local jobs, grow the state's economy, and improve public health while ensuring a cleaner environment for current and future residents.

As part of this statewide undertaking, the Clean Energy Act required New Jersey's investor-owned gas and electric utility companies to reduce their customers' use of gas and electricity by set percentages over time. To help reach these targets, the New Jersey Board of Public Utilities approved a comprehensive suite of efficiency programs that would transition the state to some of the highest energy savings in the country.

These "next generation" energy efficiency programs feature new ways of managing and delivering programs historically administered by New Jersey's Clean Energy Program™ (NJCEP). While NJCEP will continue to offer some energy efficiency programs, all of the investor-owned gas and electric utility companies will now also offer complementary energy efficiency programs directly to their customers, as shown below.

Please visit this site regularly, browse the below Frequently Asked Questions (FAQs), and join our Energy Efficiency Listserv for additional details and the latest information.

### Program Updates

- FY21 Notice of Elimination of Enhanced Incentives for Prescriptive Lighting
- FY21 Commercial & Industrial

## FREQUENTLY ASKED QUESTIONS

### Why will some energy efficiency programs now be managed by the utility companies?

The transition of the administration of certain energy efficiency programs from NJCEP to the utilities is in accordance with the mandates from the Clean Energy Act of 2018. These new programs will allow the utilities to work directly with customers to achieve energy savings. The Board considered the following in establishing this transition:

- Programs that rely heavily on contractors' use will be handled at the utility level, where the utility companies can build strong relationships and lead co-branded advertising and marketing efforts.
- Utilities will handle programs that rely on customer data or advanced metering infrastructure (AMI) to streamline customer data access layers and minimize the sharing of data to protect customer privacy.
  - Utilities are well-suited to deliver certain energy efficiency programs, such as those that are based on existing customer relationships and that rely on utility data and systems.
  - Certain programs are best delivered on a consistent statewide basis, whereas others may still be effective when modified for each utility territory.
  - Utility administration works best for programs that can leverage utilities' knowledge of energy consumption, customer demographics, workforce infrastructure, and existing customer relationships within their service territories. Utility access – and increased customer access – to energy use data enables the design of more personalized services and programs, targeted outreach, and individualized solutions for customers.
- Utilities can offer flexible financing options such as on-bill repayment.
- Customers may have more "brand awareness" and direct communication with their utility, facilitating the broader adoption of energy efficiency measures.

### Which energy efficiency programs will continue to be administered by NJCEP, and which will be administered by the utilities?

NJCEP will continue to administer the new construction programs for commercial and industrial (C&I), residential, and government customers. NJCEP will also continue offering the Residential New Construction, Large Energy Users, Combined Heat & Power & Fuel Cells, and Solar & Community Solar Programs, as well as the Local Government Energy Audit Program, the Energy Savings Improvement Program financing program, and energy efficiency opportunities for state

New Jersey's cleanenergy program

### Program areas staying with NJCEP:

- New Construction (residential, commercial, industrial,

New Jersey's cleanenergy program

New Jersey's cleanenergy program

# Current Program Updates



# BPU Program Updates: Progress to Goals (PTG) Report as of August 2021 – FY22

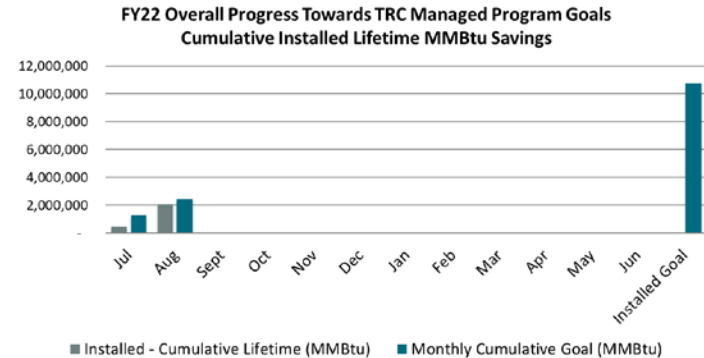
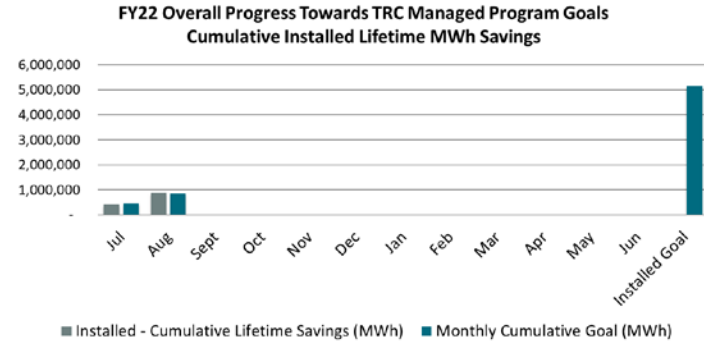
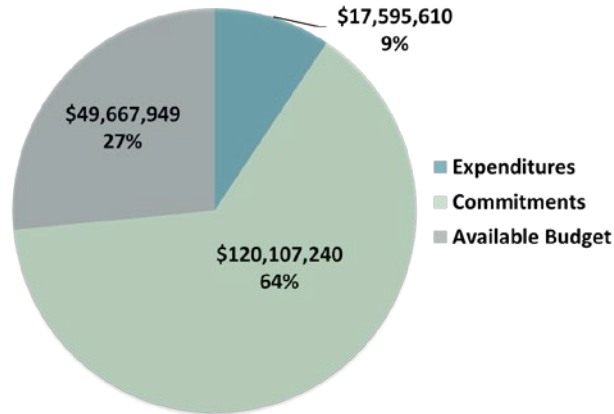


**Note (1):** The results presented here are preliminary and are subject to change.

**Note (2):** Due to COVID-related health and safety restrictions, some programs have experienced a decline in participation or project completions.

# Overall Progress Towards TRC Managed Program Goals

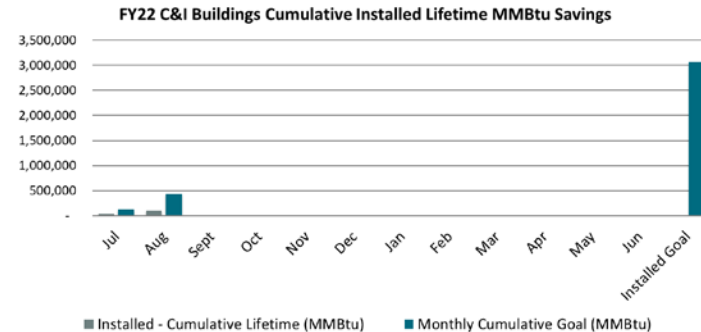
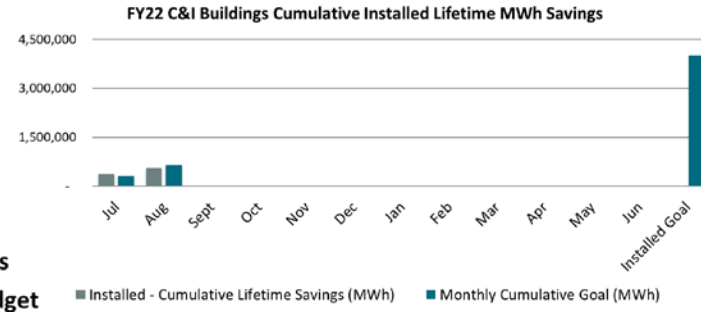
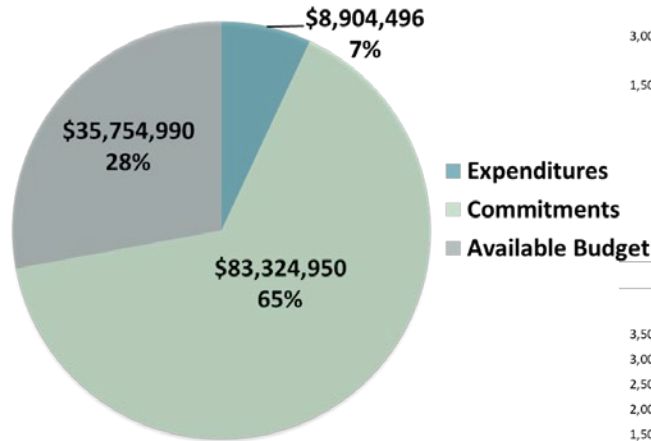
FY22 Overall TRC Managed Programs  
Incentive Budget: **\$187,370,799**



# Commercial & Industrial Buildings

NJCleanEnergy.com

FY22 Incentive Budget: **\$127,984,436**



## Program Highlights

### Retrofit

- Received 42 applications (77 YTD)
- Approved 109 applications (298 YTD)
- Paid 97 applications (406 YTD)

### New Construction

- Received 6 applications (11 YTD)
- Approved 8 applications (11 YTD)
- Paid 4 applications (16 YTD)

### Customer Tailored Energy Efficiency Pilot Program (CTEEP)

- Received 2 new enrollment (2 YTD)
- Approved 3 application (3 YTD)
- Paid 1 application (1 YTD)
- Held 0 scoping session meeting with customer (1 YTD)

### Large Energy Users Program (LEUP)

- Received 2 applications (5 YTD)
- Approved 0 Final Energy Efficiency Plan (0 YTD)
- Paid 1 Application (2 YTD)

### Pay for Performance – Existing Buildings

- Received 0 applications (0 YTD)
- Approved 0 Energy Reduction Plans (0 YTD)
- Completed 1 projects (1 YTD)

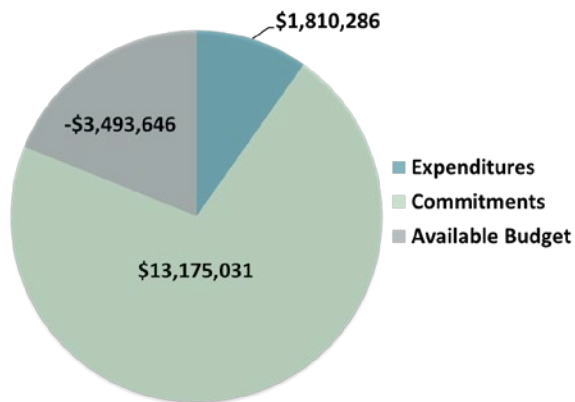
### Pay for Performance – New Construction

- Received 0 application (1 YTD)
- Approved 4 Energy Reduction Plan (4 YTD)
- Completed 2 project (2 YTD)

# Direct Install

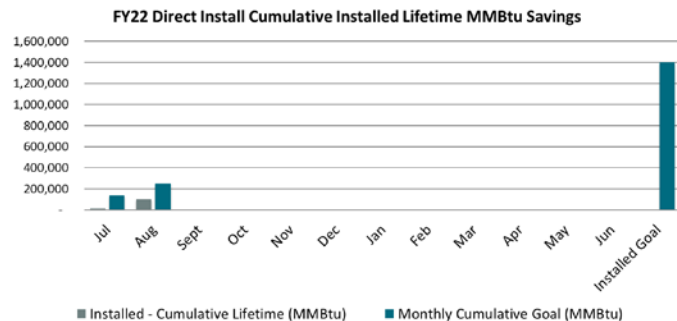
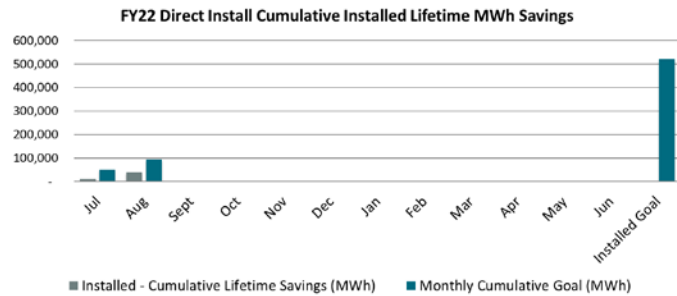
NJCleanEnergy.com

FY22 Incentive Budget: **\$11,491,671**



## Program Highlights

- Received 0 applications (0 YTD)
- Paid 33 applications (50 YTD)



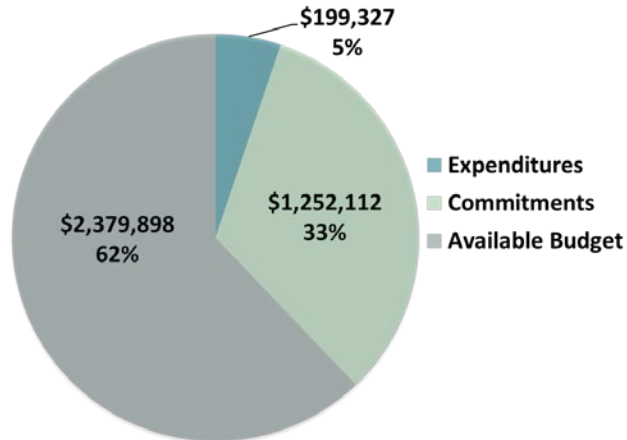
**Note:** Actual year-end FY21 commitments exceeded the estimated commitments used to develop the budget. The difference will be addressed in the FY22 true-up budget. The FY21 budget was not exceeded.



# Local Government Energy Audit (LGEA)

NJCleanEnergy.com

FY22 Incentive Budget: **\$3,831,336**



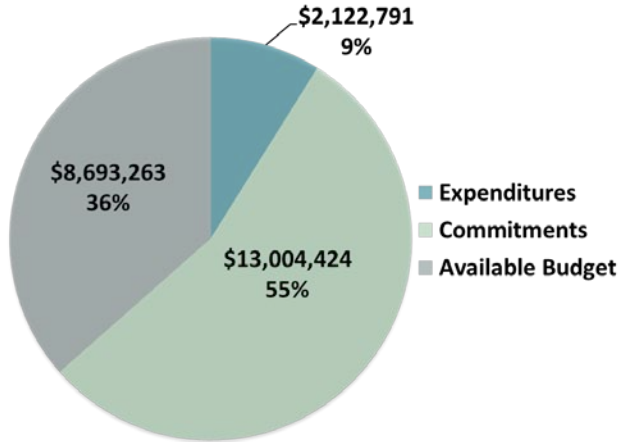
## Program Highlights

- Received 28 applications (36 YTD)
- Approved 12 applications (12 YTD)
- Audited approximately 434,121 square feet
- Held 0 Exit Meetings for 0 sites (including additional scopes)
- Delivered Final Audit reports on 4 sites (4 entity)

# Distributed Energy Resources

NJCleanEnergy.com

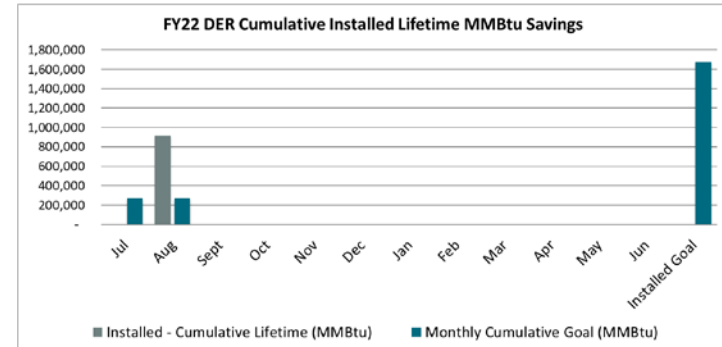
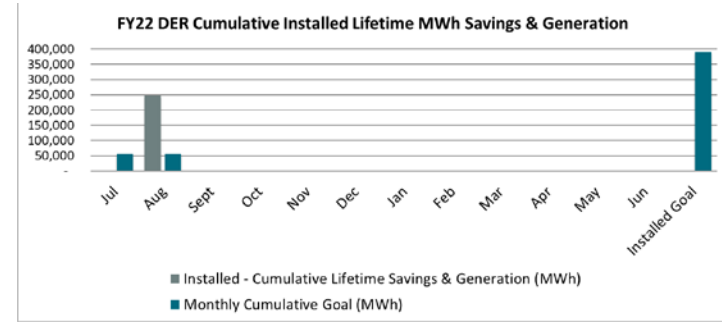
FY22 Incentive Budget: **\$23,820,478**



## Program Highlights

### Combined Heat & Power (includes Fuel Cells)

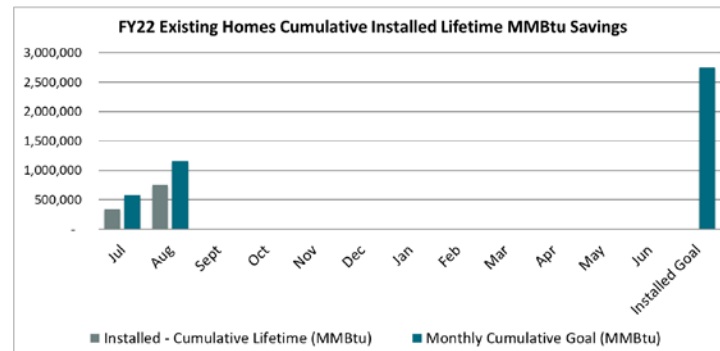
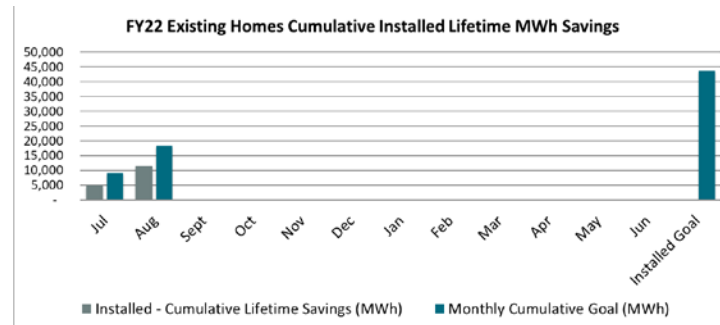
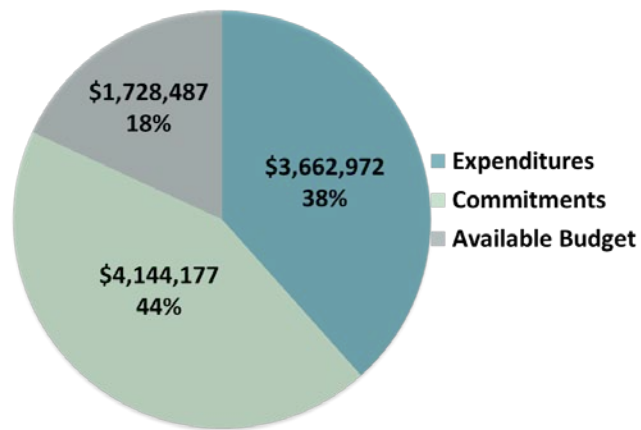
- Received 0 application (1 YTD)
- Approved 0 application (0 YTD)
- Completed 3 installation (3 YTD)



# Residential Existing Homes

NJCleanEnergy.com

FY22 Incentive Budget: **\$9,535,636**



# Residential Existing Homes

## Program Highlights

### Heating, Ventilation and Air Conditioning (HVAC)

- Received 1,035 applications (2,753 YTD)
- Paid 1,934 applications (3,329 YTD)
- Delivered 0 HVAC training classes

### Home Performance with ENERGY STAR® (HPwES)

- Received 0 enrollments (0 YTD)
- Completed 254 projects (634 YTD)
- Delivered 0 HPwES training classes

### State Energy Funding (SEP) Funding Available\* for oil, propane, municipal and coop electric customers:

- HVAC: \$ 296,697.64 remaining
- HPwES: \$ 375,311.55 remaining

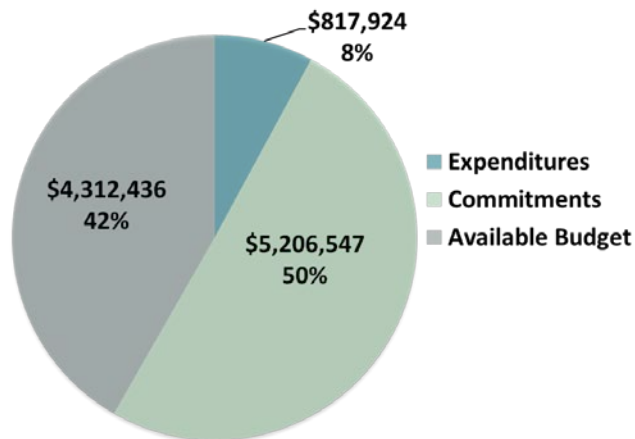
### Contractor Cooperative Marketing Incentives:

- HVAC: \$ 61,840.21
- HPwES: \$ 88,328.54

# Residential New Construction

NJCleanEnergy.com

FY22 Incentive Budget: **\$10,336,907**

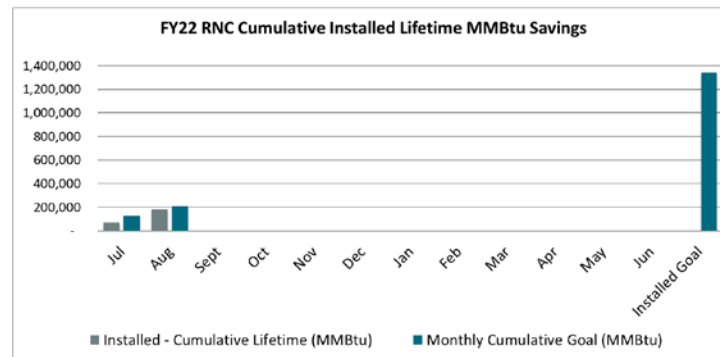
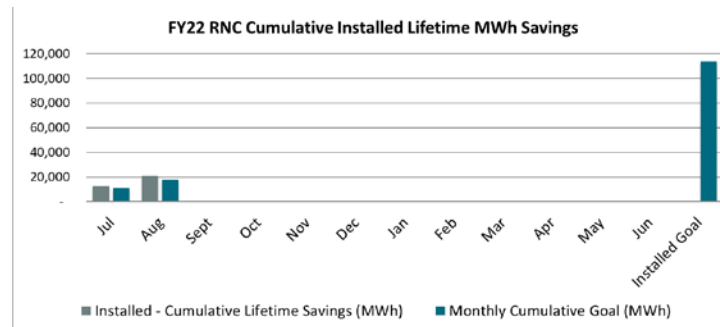


## Program Highlights

- Received 334 enrollments (1758 YTD)
- Completed 329 projects (650 YTD)

## Contractor Cooperative Marketing Incentives:

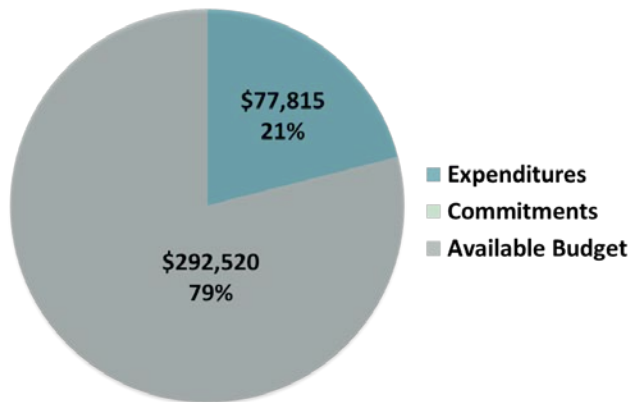
- RNC: \$ 0.00



# Energy Efficiency Products

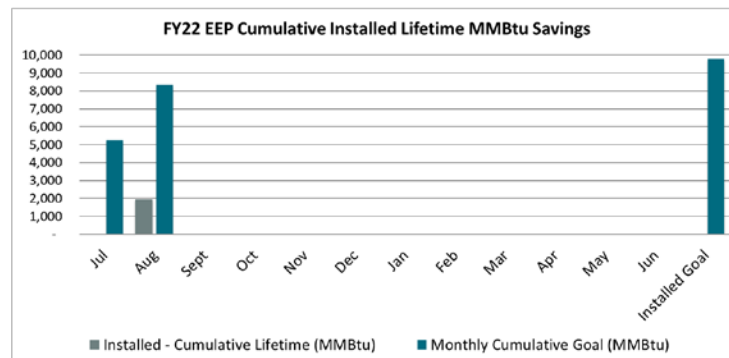
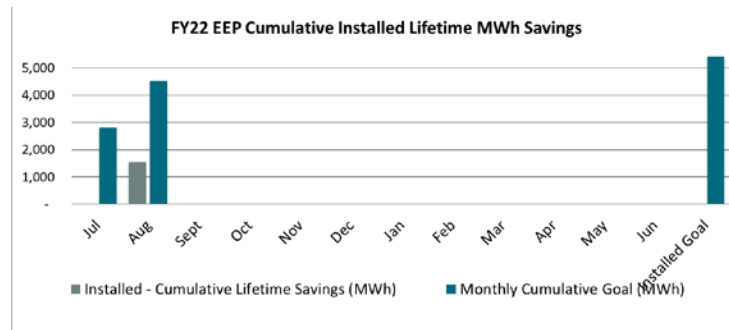
NJCleanEnergy.com

## FY22 Incentive Budget: \$370,335



### Program Highlights

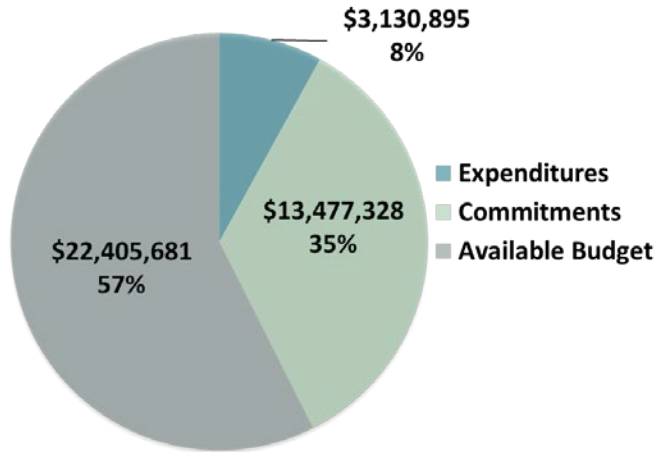
- Appliance Rebates: 2,770 completed
- Appliance Recycling: collected 0 units
- 0 retailer store visits were conducted in August



# Comfort Partners

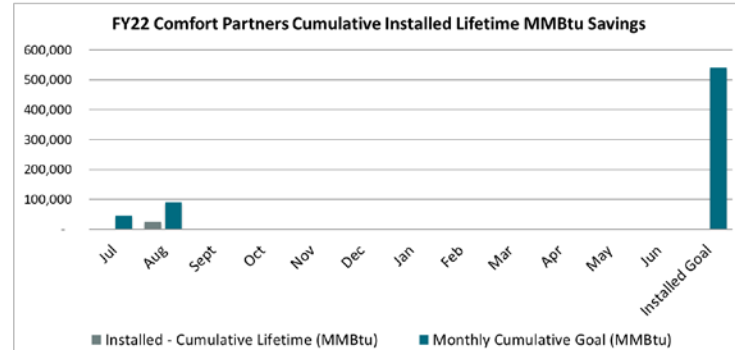
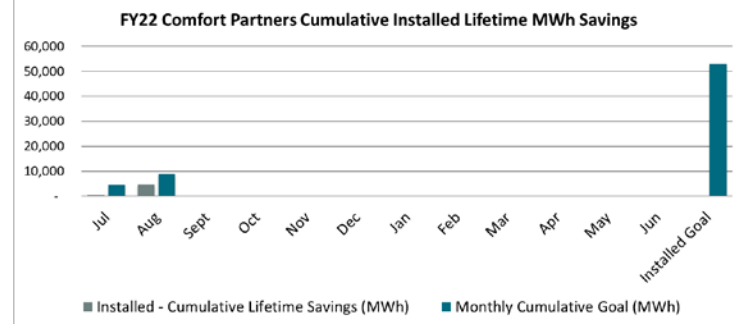
NJCleanEnergy.com

FY22 Incentive Budget: **\$39,013,905**



## Program Highlights

- Completed 279 Projects (563 YTD)



# Utility Program Updates





# Utility Update on EE Programs relative to NJCEP Transition

September 29, 2021

# Reminders

- ▶ All of the utilities have launched the programs transitioning from NJCEP
- ▶ Reach out to utilities where you may be interested in doing business.
  - ▶ Explore the information they have posted and reach out if you have questions.
  - ▶ Sign up for any contractor updates if that is available.
  - ▶ Build your understanding of utility specific elements (e.g. financing options, online forms)
  - ▶ Some programs have specific contractor requirements and may require Participating Contractor Agreement

**Utilities appreciate your patience during this transition**  
Committed to updating FAQs and materials to provide clarity to  
customers and contractors

# Energy Management Program

- ▶ Utilities plan to launch the new Energy Management Program for C&I this fall
- ▶ Pathways include
  - ▶ HVAC Tune-Up
  - ▶ Building Tune-up
  - ▶ Retro-commissioning
  - ▶ Strategic Energy Management
- ▶ Incentives
  - ▶ Rebates
  - ▶ On-Bill Repayment Programs or similar financing

**Reach out to the respective utilities for more information**

# Engineered Solutions Program

- ▶ Tailored EE solutions and incentives for municipalities, schools, universities, hospitals and health care facilities
- ▶ Intended to provide comprehensive solutions for the customer based on opportunities identified through an audit performed by an engineering firm under contract to the utility
- ▶ Project advances for more detailed engineering work and commissioning
  - ▶ Incentives to buy down the cost of the measures and also offer On-bill Repayment or financing
- ▶ Status
  - ▶ PSE&G, NJNG and SJI have had this program in place for several years
  - ▶ More utilities plan to launch this program this fall

**Reach out to the respective utilities for more information**

## Other Updates

- ▶ Based on contractor feedback, the utilities have made some adjustments to insurance requirements for some of the participating contractor agreements
- ▶ PSE&G Enhanced Incentives for customers impacted by Tropical Storm Ida

**Contact info for all utilities is captured  
on the NJCEP transition page**

# WORKING GROUP UPDATES



# Working Groups



The following Working Groups were identified in the June 10, 2020 Board Order to refine the programs through the transition:

- **Workforce Development Working Group**
- **Equity Working Group** (Comfort Partners Subcommittee and Multifamily Subcommittee)
- **Evaluation, Measurement, and Verification Working Group** (Energy Codes and Standards Subcommittee)
- **Marketing Working Group**

# Workforce Development Working Group



- Develop recommendations for establishing coordinated and collaborative workforce development and job training pathways statewide
- Focus on providing economic opportunities for underrepresented and socially or economically disadvantaged individuals





# Equity Working Group



- Develop recommendations to integrate equity metrics and approaches in energy efficiency and peak demand reduction programs
- Collaborate with Supplier Diversity Development Council to encourage supplier diversity
- Encourage contractor coaching/mentoring of diverse enterprises

**Comfort Partners Subcommittee:** Oversee Comfort Partners Program and utilities' day-to-day operations

**Multifamily Subcommittee:** Design and manage delivery of multifamily sector with goals of equitable access and adequate program support

# Evaluation, Measurement, & Verification Working Group



- Provide guidance and input on the planning and monitoring of EM&V plans (including activities, methodologies, budgets, priorities), policies, procedures, guidelines, requirements for program administrators (including data to be tracked and reported, such as GHG emissions reductions, BTU savings, local worker job-hours, supplier diversity), methods to account for strategic electrification, and schedules.
- Provide recommendations on development of a standard, transparent, and replicable approach for EM&V across the state, according to which the State and utilities will be held to the same accountability standards such as the frequency and transparency of reporting and vendor procurement requirements.
- Share associated data, track best practices from other jurisdictions, emerging EM&V approaches and facilitate the necessary stakeholder processes related to the State's EM&V policies.

# Marketing Working Group



- Promote the programs, overall state brand (utilized by all program administrators), and the larger benefits of participation in EE and PDR programs. Engage in a collaborative effort in branding, messaging, and promotion of all utility- and State-led programs, including in the provision of program materials in Spanish and languages other than English. Staff shall leverage State resources to promote general awareness of EE and other clean energy opportunities in NJ while the utilities shall market specific programs and initiatives to customers in a more targeted fashion

# NJIT PRESENTATION: RESEARCH ON OPPORTUNISTIC RETROFITS



**NJIT**

New Jersey Institute of Technology

**Opportunistic Retrofit Research**

**Deane Evans**

**Christine Liaukus**

**Re-Side      Tight**

**Re-Side      Right**

**Renew-Wall**

# Re-Side Tight

Install the WRB as an intact air barrier during a standard re-siding job



This reduced infiltration an average of 20% (about 30% on this home)

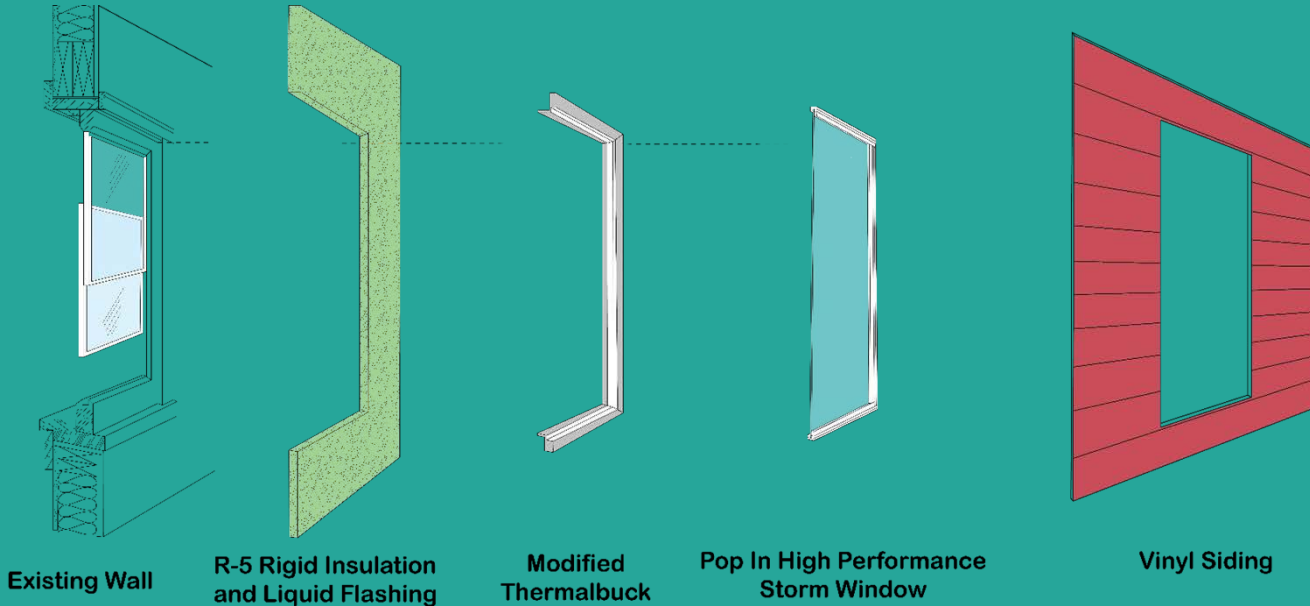
# Re-Side Right

Install rigid insulation as the WRB and air barrier during a standard re-siding job



# Renew-Wall

Addresses entire wall area by adding high performance storm window and thermal buck





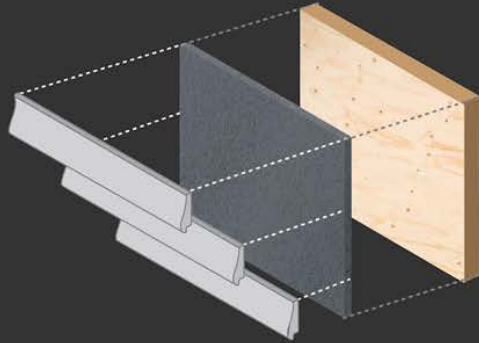


# Re-Side Right

Principal Investigator - Christine Liaukus, RA



# RE-SIDE RIGHT



# The Re-Side Right Field Research Process

## STEP 1



Contractor screening  
and selection

## STEP 2



Develop homeowner  
survey instrument

## STEP 3



Convening of  
contractors for pre-  
retrofit informational  
session

# The Re-Side Right Field Research Process

## STEP 4



Test house  
recruitment, selection  
and participation

## STEP 5



Document pre-siding  
conditions at  
10 test houses

## STEP 6



Install Re-Side Right  
package on 10 houses

# The Re-Side Right Field Research Process

## STEP 7

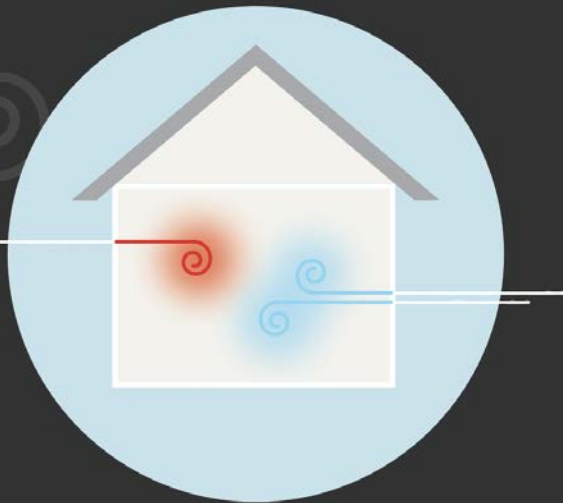


Construction  
observation and  
video documentation

## STEP 8



Document  
post-siding  
conditions



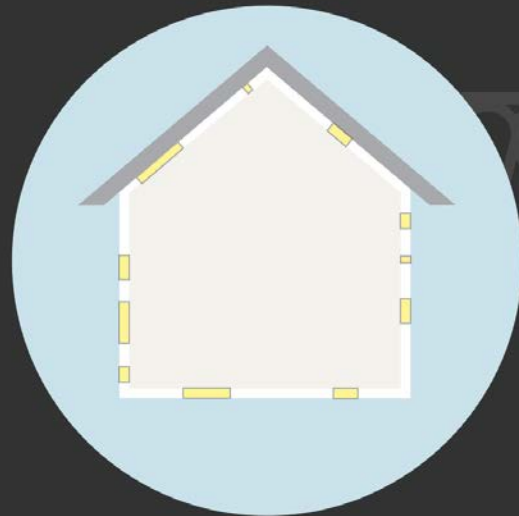
## **Most houses leak a lot of air**

*This leads to drafts, energy loss, and compromised building durability. Reducing the leakage helps minimize these issues.*

**&**

## **Could use more insulation**

*Added insulation reduces heat loss in the winter & heat gain in the summer. Adding continuous insulation on the exterior also reduces thermal bridging through the walls, further enhancing thermal performance.*





Insulation without an air barrier is like wearing a sweater when riding a bicycle in the cold weather: the air gets through and you don't stay warm.



If you put a wind breaker (air barrier) over the sweater, the air flow is diminished and the sweater (insulation) keeps you warm.

**BASF**

We create chemistry

Made of

**Neopor®**

provided by BASF





# Combustion Safety Testing



**The Building Performance Institute protocol for shell improvement**

Whenever you tighten a home, do combustion safety testing to be sure you are not creating or exacerbating an unsafe situation

# **INSTALLATION PROCEDURES**



1. Tear off siding

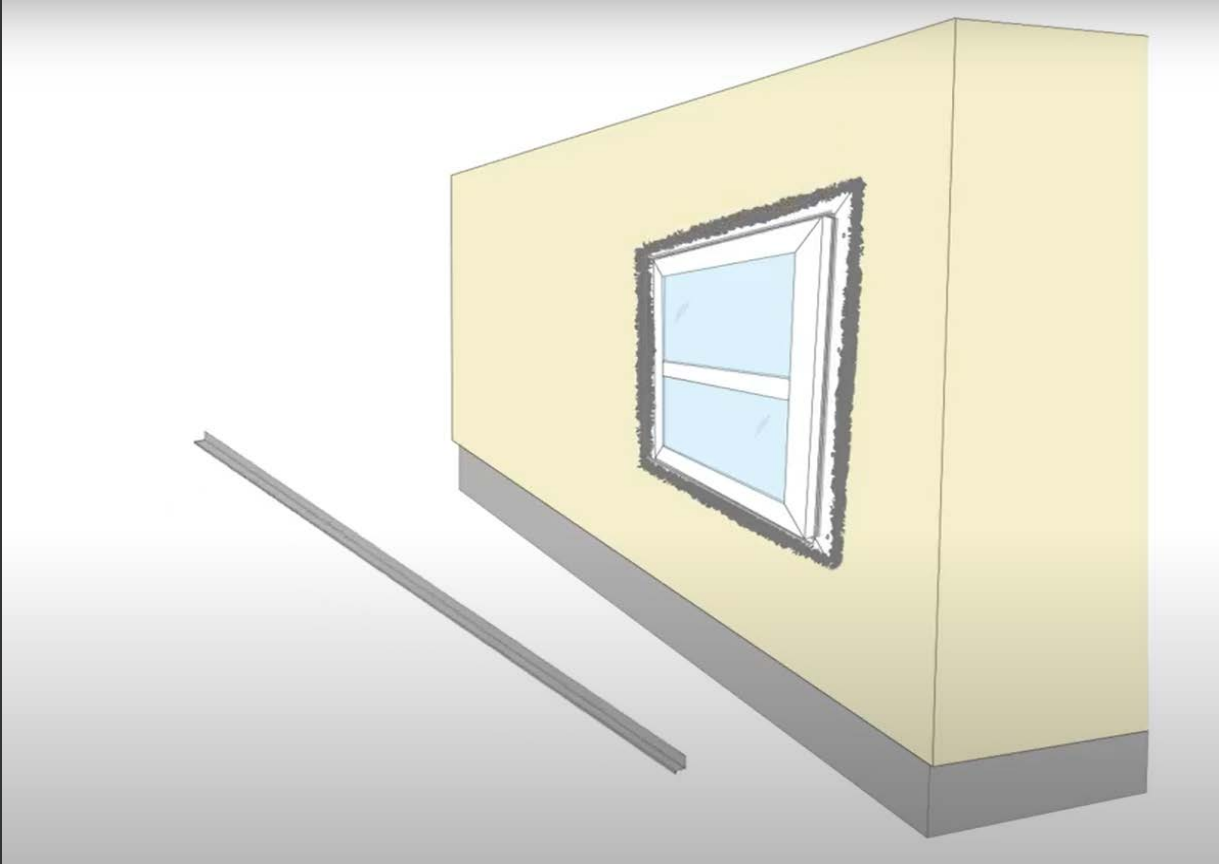


2. Repair substrate, fill large openings

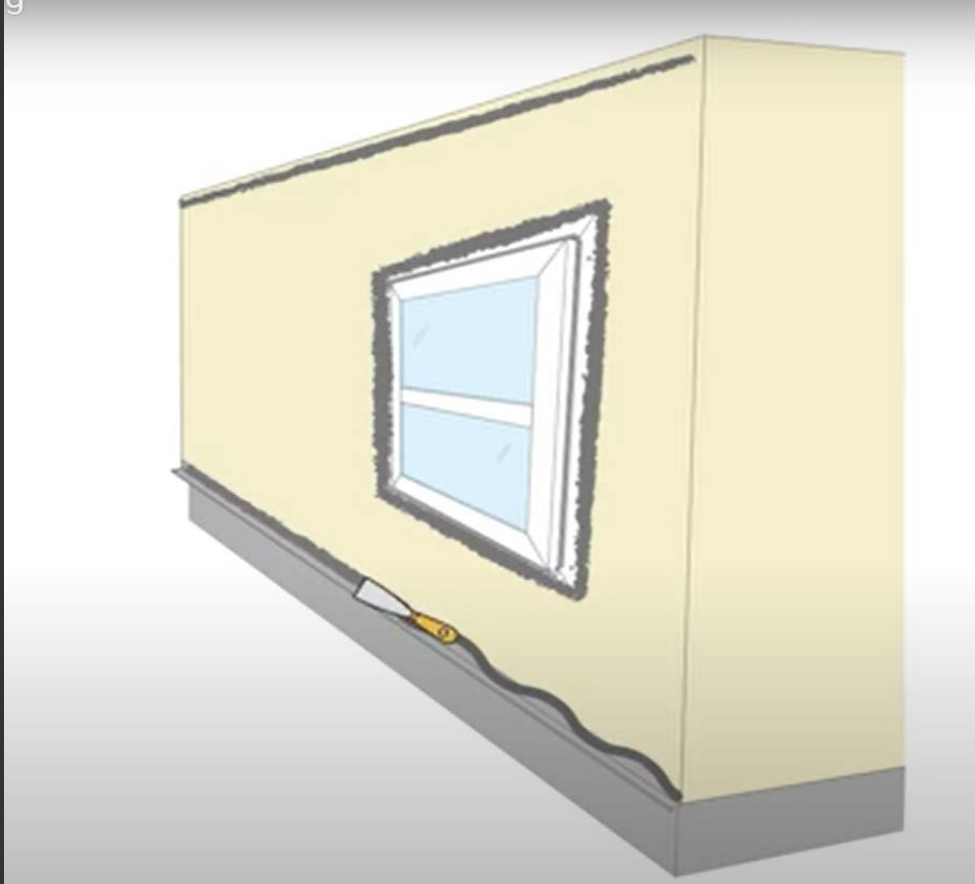




3. Seal between foundation and framing as needed



4. Install drip edge at sheathing base



5. Install liquid flashing at sheathing top, base and around windows and doors



Liquid flashing application at window jamb





How to set up your Grip-Lok® Autofeed Fastening System



6. Install 1" rigid insulation with cap nails or an auto feed screw gun



7. Tape all joints with construction tape



Tape is pressure activated and  
needs to be rolled



8. Install self-adhered flashing at jambs and head of windows/doors

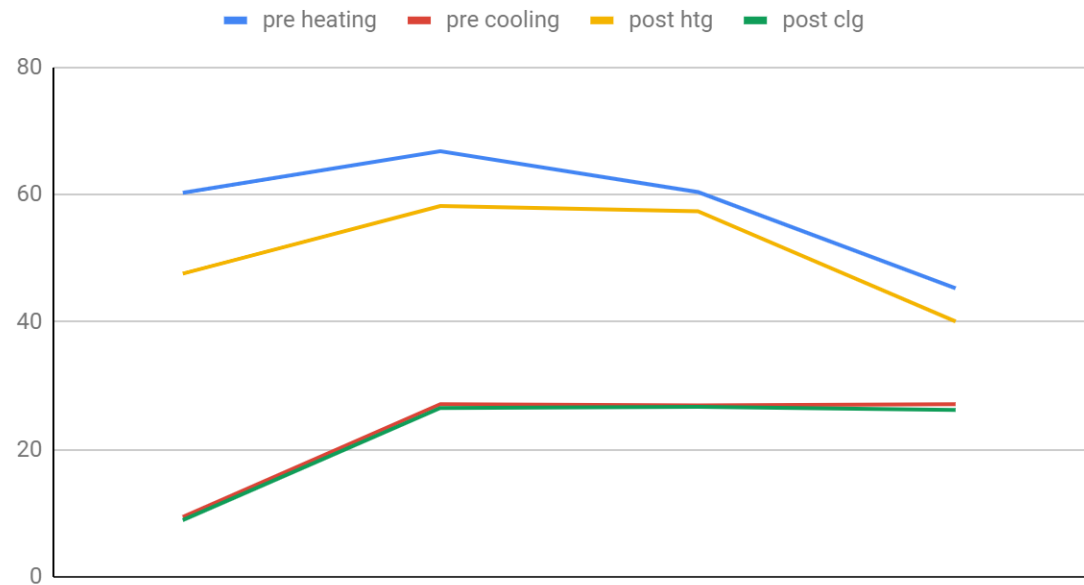




9. Install siding



## Pre and Post Siding Source Energy (MMBtu/yr)



## Re-Side Right

1. In what town do you live?

2. How long have you lived in your house?

- Less than 1 year
- Between 1 year and 5 years
- More than 5 years

3. Since the completion of your siding job, have you noticed any comfort changes in your home?

- More comfortable
- No change
- Less comfortable
- Not sure

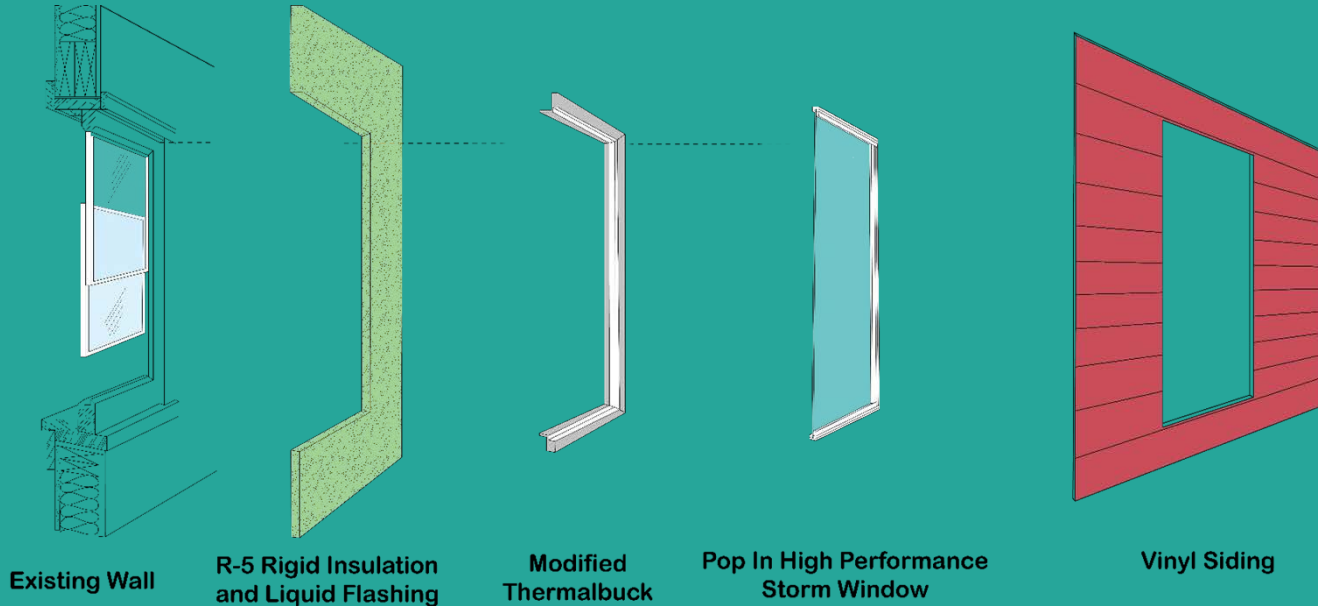
4. Have you noticed any difference in the acoustic performance of your home?

- There is less noise from outside
- There is no change in noise from the outside
- There is more noise from outside
- Not sure



# Renew-Wall

Addresses entire wall area by adding high performance storm window and thermal buck



# Opportunistic Retrofitting

Leveraging standard building upgrades to optimize energy performance and resilience.



# General Q&A



To submit questions in advance for next month:  
**[EnergyEfficiency@bpu.nj.gov](mailto:EnergyEfficiency@bpu.nj.gov)**

# Items of Interest



# Next Meetings



# Energy Efficiency Committee Meetings

[NJCleanEnergy.com/Committees/Energy-Efficiency](http://NJCleanEnergy.com/Committees/Energy-Efficiency)

March 31, 2021

April 28, 2021

May 26, 2021

June 30, 2021

July 28, 2021

August 25, 2021

September 29, 2021

October 27, 2021

November 17, 2021

December 22, 2021

# More Information

## VISIT

NJCleanEnergy.com

NJCleanEnergy.com/Committees/Energy-Efficiency

## CONTACT

[EnergyEfficiency@bpu.nj.gov](mailto:EnergyEfficiency@bpu.nj.gov)

866.NJ.SMART (657.6278)

## NEWSLETTER

NJCleanEnergy.com/NEWSLETTER

## EE LISTSERV

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THANK YOU

