



**CONSUMERS ENERGY**

# **Super-Efficient, All-Electric New Homes Pilot**

**Phase 3 National Certifications**

**April 1, 2024 – December 31, 2025**

**BUILDER & RATER KICKOFF  
JULY 24, 2024**

**Consumers Energy**

*Count on Us®*



# Agenda

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1886 Company was Founded



**6.7million**

Michiganders  
count on  
us for service



**71,039**

miles of  
electrical  
distribution  
lines



workforce  
consisting of  
employees and  
contractors

**15,000**

more than  
**27,000**

miles of natural  
gas distribution  
pipeline

**5,885**

MEGAWATTS  
of generating  
capacity

## A Bright Future Begins Here

### Clean Energy Plan

Help your clients join over 700,000 Michigan homeowners who have saved more than \$1.2 billion on energy bills since 2009.



# Program Implementation Contractor

**50,000+** New homes incentivized/year nationally

**25+** Utilities served

**25** New construction programs

**30+** Years of new home efficiency experience



# Meet the Team



**Carrie Harkness**  
Portfolio Manager  
**Residential Product Innovation**  
Consumers Energy



**Sheryl Tembe, PhD**  
Portfolio Manager  
**Residential Pilots & Innovation**  
ICF



**Rob Murawski**  
Pilot Technical Lead  
**New Home Construction**  
ICF



**Patrick McCafferty**  
Account Manager  
**New Home Construction**  
ICF



# Pilot Purpose & Participation

## Phase 1

**Pilot Term:** 2020 / 2021  
**Participation:** 4 Homes  
**Housing Type:** Income-Qualified

Deploy a prescribed measure mix to demonstrate the performance of super-efficient, all-electric homes with ccASHP and significant solar PV

- ENERGY STAR Homes
- Average HERS 41 before solar
- 70% modeled energy savings before solar

## Phase 2

**Pilot Term:** 2022 / 2024  
**Participation:** 50+ Homes  
**Housing Type:** Income-Qualified & Market-Rate

Explore builder barriers and scalability of super-efficient, all-electric homes built to HERS 40 and below and PV-ready or have PV-installed

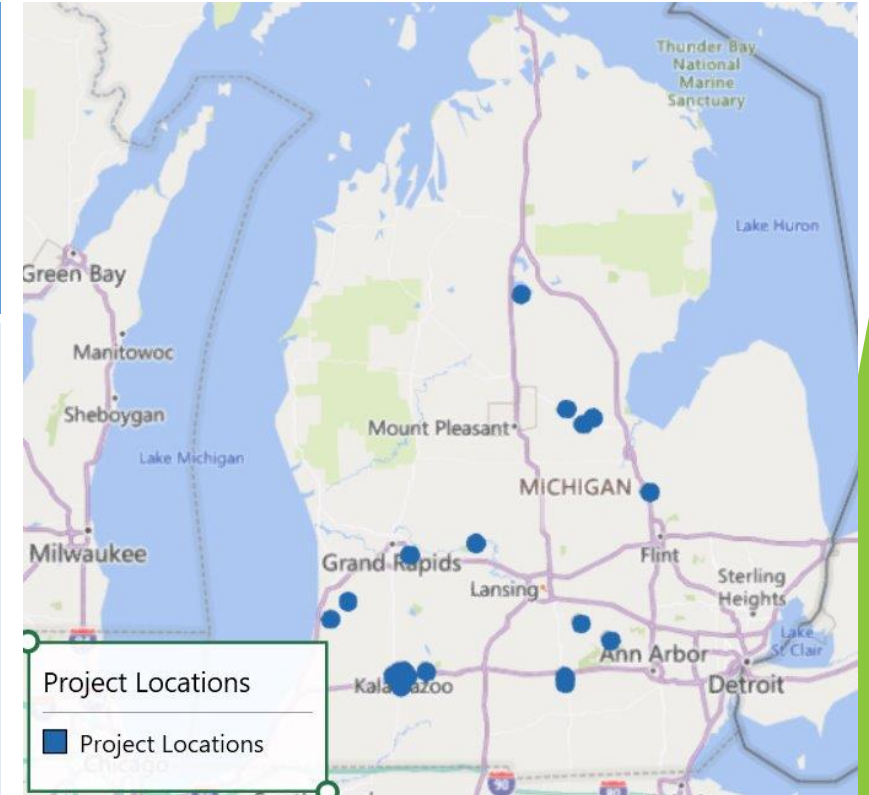
- 12 Market Rate
- 39 Income Qualified
- Average HERS <38
- \$938,000 Total Incentives

## Phase 3

**Pilot Term:** 2024 / 2025  
**Target:** 50 Homes

Test Michigan market acceptance of advanced certification standards and best practices for all-electric home construction

- ENERGY STAR NextGen
- DOE ZERH
- PHI / PHIUS



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# Overview & Incentives





# Phase 3 Pilot

April 1, 2024 – December 31, 2025

Encourages the residential new construction industry to build homes within the Consumers Energy electric and combo service territories that meet the following specifications:

1. All-electric home with heat pump as primary heating and electric water heating
2. PV-Ready or PV installed on-site
3. Certified home
  - ENERGY STAR NextGen<sup>®</sup>
  - DOE Zero Energy Ready<sup>™</sup>
  - Passive House Institute<sup>™</sup> / PHIUS<sup>™</sup>



# Incentive Structure

Homes completed between April 1, 2024 – December 31, 2025

Home Certification Pathway	Incentive from Consumers Energy	Eligible for Federal Tax Credit*
ENERGY STAR NextGen™	\$5,000	\$2,500
DOE Zero Energy Ready Home™ v2	\$10,000	\$5,000
Passive House Institute™ or PHIUS™	\$20,000	\$5,000

**Note:** Builders who do not meet requirements for any of the individual pathways may be directed to the standard New Home program.

It will be important, as builders and raters trying to meet requirements, to have constructive conversations regarding project goals and what measures are needed to make that happen.

**Please reach out to the program team for any help you may need!**

# Recommended Energy Efficiency Measures/Requirements

## Requirements Note:

- Ductwork entirely in conditioned space
- EPA Indoor airPLUS for DOE ZERH and PHI / PHIUS
- DOE ZERH PV-Ready Checklist

Home Component	Recommended Measure
<b>Air-Source Heat Pump or Mini-Split Heat Pump*</b>	Selected from NEEP's ccASHP Product List
<b>Whole-Home Ventilation</b>	HRV or ERV
<b>Heat Pump Water Heater</b>	UEF 2.00+
<b>Infiltration</b>	1.50 ACH or Less
<b>Insulation</b>	Ceiling/Attic Insulation R-Value: 60+ Wall Insulation R-Value: 30+ Basement or Slab Insulation R-Value: 20+
<b>ENERGY STAR® Certified Windows</b>	U-Value: 0.20 or Less
<b>Cooktop</b>	Induction
<b>ENERGY STAR Certified Appliances†</b>	CEE Tier II
<b>ENERGY STAR LED</b>	100% LED

\*For Non-Ducted systems: HSPF > 10, For Ducted systems: HSPF > 9, COP @5°F > 1.75 (at maximum capacity operation), SEER > 15

†Tier II – This level signifies energy efficiency at 25% above government mandate

# Home Eligibility Requirements

- Homes must be located within Consumers Energy electric, and combination (electric and natural gas) service territories as evidenced by city/town, zip code, and ultimately a Consumer Energy electric meter number.
- Qualifying structures must be site-built single-family residential homes, duplexes or townhomes.
- Home must show proof of being PV-ready with completion of [DOE's Zero Energy Ready Home PV-Ready Checklist](#) or have PV installed on-site.
- Home must have Consumers Energy electric for the primary heating and water heating fuel type.
- Home must utilize a heat pump for heating and cooling.
- Proposed energy modeling must achieve either of the three national certifications.  
**There is no HERS requirement.**



# Home Eligibility Requirements (cont.)

- Home must be completed on or after April 15, 2024.
- Home must receive a HERS rating, rough/pre-drywall inspection and final inspection.
- Home construction, PV-Ready Checklist and final HERS rating must be completed by December 31, 2025.
- Incentive application must be updated to include the final HERS rating and be resubmitted to the portal by December 31, 2025.
- Program is funded through December 31, 2025, or through depletion of funds.



# Participation Steps



# Participation Process

## STEP 1

Builder submits Trade Ally Participation Agreement

## STEP 2

Work with HERS Rater or PHI/PHIUS consultant, who will submit rebate applications on behalf of the builder

## STEP 3

Rater / consultant submits proposed design through Ekotrope portal

## STEP 4

CE team reviews application and proposed design

If approved, incentives will be reserved

## STEP 5

Builder completes construction of home per proposed design

## STEP 7

If all requirements are met, reserved incentive will be paid to builder based on the project's final certification tier

## STEP 6

Rater / consultant & builder registers homes with RESNET® and submits final rating through Ekotrope and DOE ZERH PV-Ready checklist

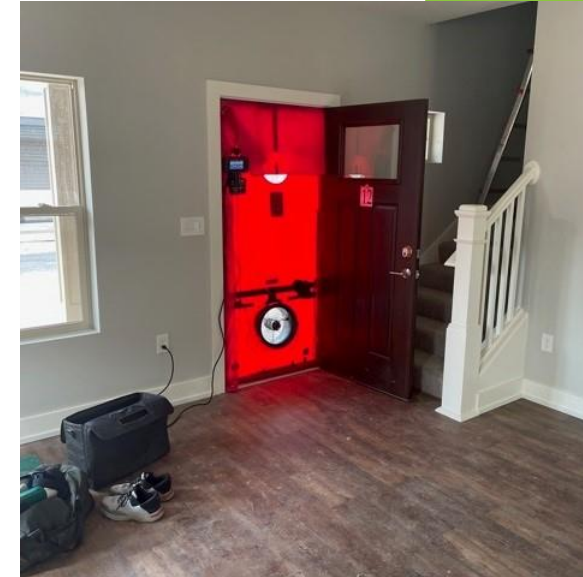
**Note:** Consumers Energy has right to withhold incentives if pilot requirements are not met on final application.

**Project may be directed to the standard New Homes program.**



# Facilitation of QA/QC

- Program participants will be required to participate in program QA/QC during pre-drywall and final stages of construction.
- QA/QC team comprised of ICF staff, who will collect data points and oversee or conduct diagnostic testing to compare with final application and HERS rating.
- Solid and consistent communication between builders/raters/program staff is required to ensure coordination and minimize rebate delays.



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# Home Registration & Incentive Process



# Submission of Proposed Model

- **Ekotrope users:** Complete proposed model and fill out Consumers tab within 'Project Info', marking project as 'Under Construction'.
- **REM/Rate users:** Upload proposed model via XML and fill out Consumers tab within 'Project Info', marking project as 'Under Construction'.
- Submit project using the 'Submit Project' dropdown and selecting Consumers Energy.

The image displays two overlapping screenshots of the Ekotrope web application. The top screenshot shows the 'Project Info' tab with the following fields: Submission Status (Under Construction), Enrolled Builder (Clark Lake, MI 48234), Expected Start Date (Monday November 1, 2021), Rough Inspection Date (Wednesday December 15, 2021), Expected Completion Date (Thursday March 31, 2022), Electric Meter Number, Gas Meter Number, Electric Utility (Consumers Energy), and Gas Utility. The bottom screenshot shows the 'Submit Project' dropdown menu with 'Consumers Energy' selected. The background of the bottom screenshot shows the 'Project Info' tab with 'Residence 2' selected, 'Clark Lake, MI 48234' as the address, and 'Registry ID Unregistered'.



# Incentive Reservation & Online Data Entry

- Home design/Incentive Application must be registered in the portal and be pre-approved by the program. Upon approval, allocations will be reserved for the home(s). Any modifications to the home design may result in a gain or loss of allocation.
- Upon registration, it will be required in the Incentive Application to provide the proposed home design set of basic home data, including:
  - Lot number
  - Street Address
  - City
  - Zip Code
  - County
  - Permit Date
  - Expected Start Date
  - Expected Completion Date
  - Expected Close-In Date
  - House Type
  - House Plan/Name
  - Project, Community, Building Name
  - Square Footage
  - Consumers Energy Electric Meter Number

# Submission of Final Model

- **Ekotrope users:** Complete proposed model and fill out Consumers tab within 'Project Info', marking project as 'Final Submission'.
- **REM/Rate users:** Upload proposed model via XML and fill out Consumers tab within 'Project Info', marking project as 'Final Submission'.
- Submit project using the 'Submit Project' dropdown and selecting Consumers Energy.

The image displays two overlapping screenshots of the Ekotrope web application. The top screenshot shows the 'Consumers' tab with the following fields: Submission Status (Final Submission), Enrolled Builder (Clark Lake, MI 49234), Expected Start Date (Monday November 1, 2021), Rough Inspection Date (Wednesday December 15, 2021), Expected Completion Date (Thursday March 31, 2022), Electric Meter Number (Example Meter Number), Gas Meter Number (None), Electric Utility (Consumers Energy), and Gas Utility. The bottom screenshot shows the 'Submit Project' dropdown menu with options for Consumers Energy and DTE Energy.

Field	Value
Submission Status	Final Submission
Enrolled Builder	Clark Lake, MI 49234
Expected Start Date	Monday November 1, 2021
Rough Inspection Date	Wednesday December 15, 2021
Expected Completion Date	Thursday March 31, 2022
Electric Meter Number	Example Meter Number
Gas Meter Number	None
Electric Utility	Consumers Energy
Gas Utility	

**Submit Project** dropdown options:

- Consumers Energy
- DTE Energy

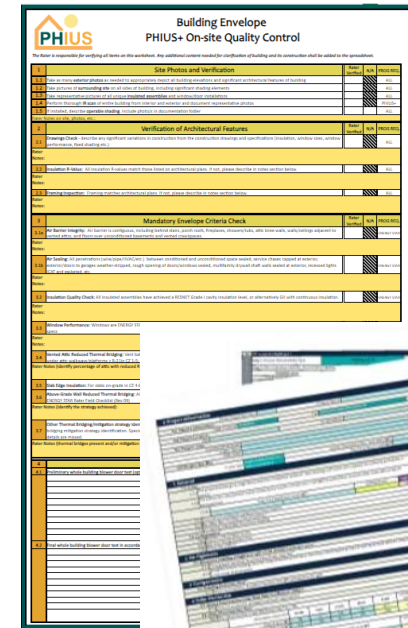
# Additional PHI / PHIUS Requirements

In addition to the project Ekotrope submission for ES NextGen and DOE ZERH Homes, additional documents may be required, including:

- Core Prescriptive Checklist
- Quality Assurance Checklist
- Completion Certificate

Please inquire to the program team upon initial submission of your project or upon completion of the Participation Agreement.

**Please reach out to the program team for any help you may need**

A screenshot of a PHIUS Building Envelope On-site Quality Control form. The form is titled "Building Envelope PHIUS+ On-site Quality Control" and includes sections for "Site Photos and Verification", "Verification of Architectural Features", and "Mandatory Envelope Criteria Check". It contains various checkboxes and fields for recording inspection results.

# Incentive Review

- Completed incentive applications will be processed by the program on a twice-monthly basis.
- If there is a construction delay greater than 30 days that affects the completion date of a registered home, the expected completion date must be updated in the builder's Incentive Application in the portal.
- For online Incentive Applications to be considered complete, the rater must upload the following supporting documentation:
  - Completed [PV-Ready checklist](#) or verification of PV installation on-site.
  - An Ekotrope or REM/Rate file for each registered home.
  - A PDF of registered home plans, upon request.
  - Completion Certificate for Passive House submissions.



# Incentive Review (cont.)

- Upon completion, the builder's requested incentive will be verified using:
  - Confirmed HERS rater reports
  - Qualifications according to the national standards applying for
- The HERS rater and Consumers Energy will validate the fuel service(s) provided at the premises.
- Builder must allow access to third-party (ICF) field quality assurance/quality control, upon request.

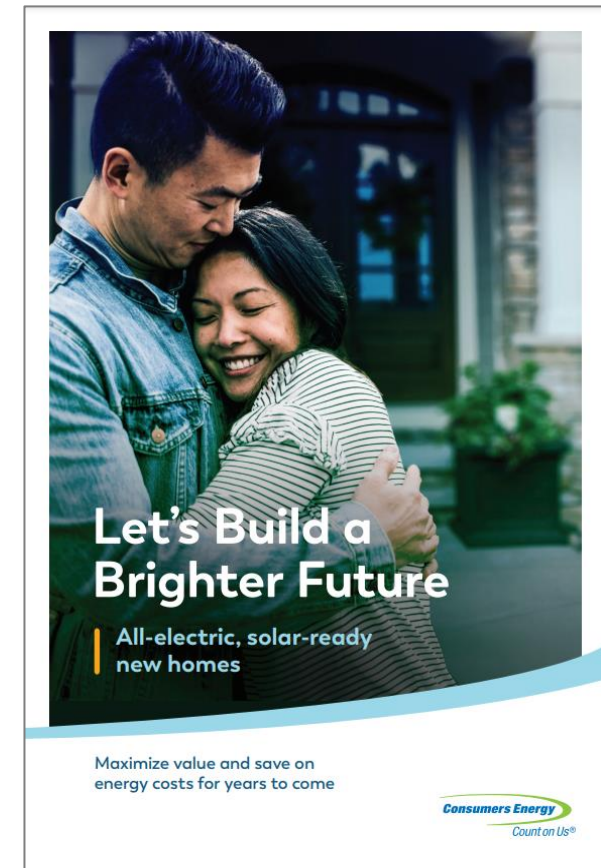
051

# Program Resources



# Marketing & Technical Resources

- [All-Electric New Home Construction Trade Ally site](#)
- [Customer Bifold Brochure](#)
- [All-Electric New Homes and Utility Incentives in Michigan](#)
- Technical Bulletins via New Home Construction program
- Measure recommendation report via Ekotrope



# Questions?

## Consumers Energy

- Carrie Harkness – [Carrie.Harkness@cmsenergy.com](mailto:Carrie.Harkness@cmsenergy.com)

## ICF

- Rob Murawski – [Rob.Murawski@icf.com](mailto:Rob.Murawski@icf.com)
- Patrick McCafferty – [Patrick.McCafferty@icf.com](mailto:Patrick.McCafferty@icf.com)
- Sheryl Tembe – [Sheryl.Tembe@icf.com](mailto:Sheryl.Tembe@icf.com)





# Thank You!