

# Electric Homes New Construction (EHNC)

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## ✓ Objective:

- Influence an emerging opportunity to build demand for high performance all-electric homes
- Layer benefits of energy efficiency, demand response, innovative rate structures, EV, PV
- Generate data to inform policy discussions around electrification as decarbonization strategy
- Goal: Cost effective program in 3 years (10, 35, 70 homes respectively 2020 – 2022)

## ✓ Elec Home Construction Benefits:

- Average electric savings ~8,600 kWh/year (compared to an all-electric baseline home)
- Achieve net zero energy capability with addition of PV
- Improved comfort: less temperature variability, lower humidity
- Comparable construction + operating cost as gas-heated homes, and lower cost if participating in Hourly Pricing
- Lower carbon footprint than high performance gas-heated homes, with increasing benefits over time as generation shifts toward lower-carbon sources

# EHNC Pilot Details

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## REQUIREMENTS

- Electric space heat, DHW & clothes dryer
- Air tightness  $\leq 2.5$  AHC@50
- ASHP 17.8 SEER, 11.0 HSPF
- HPWH 3.45 UEF
- ENERGY STAR® certified lighting
- ENERGY STAR® appliances
- ENERGY STAR® smart t-stats
- Low-flow fixtures
- Comfort/IAQ requirements

*= \$2,000 per home*

## RECOMMENDATIONS

- Induction range cooktop
- PV ready – [ComEd.com/solar](https://www.comed.com/solar)
- EV ready – [ComEd.com/EV](https://www.comed.com/EV)
- Battery storage ready
- ComEd [hourly pricing](#), [peak time savings](#), [MyAccount](#), etc.

# EHNC Marketing Materials

Valid through December 31, 2020

**ComEd.**  
Energy Efficiency Program

OVERVIEW

## ELECTRIC HOMES NEW CONSTRUCTION



Make the jump to high-quality, next-generation, electric homes. Reduce energy bills while providing superior comfort. Prepare for a clean, resilient energy future. No gas connection required.

Builders of new construction single-family homes, duplexes, townhomes and 2-4 flats are eligible to receive \$2,000 per home<sup>1</sup> in financial incentives for achieving best practice energy efficiency.

**HERE'S HOW:**

- 1 **PRE-APPLY** to confirm project eligibility. [See Application](#)
- 2 **BUILD** to meet the program's energy efficiency requirements including envelope, all-electric HVAC, heat pump water heating, lighting and appliances.
- 3 **LEARN** about additional clean energy strategies — solar power, electric vehicle charging, smart homes and induction cooking.
- 4 **VERIFY** construction quality using a qualified home energy rater. Rater will submit a simple program workbook for the home to confirm achievement.
- 5 **RECEIVE \$2,000** incentive per home.<sup>1</sup>

PRE-APPLY

For more information, visit  
[ComEd.com/ElectricHomes](http://ComEd.com/ElectricHomes)  
call 855-433-2700,  
or email  
[BusinessEE@ComEd.com](mailto:BusinessEE@ComEd.com)

1 Limited to \$10,000 per bidder in 2020. Based on availability of funds. Pre-apply and consult a program representative for more information.

Terms and conditions apply. Offers are subject to change. Actual savings will vary by customer's energy usage and rate.  
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Valid through December 31, 2020

REQUIREMENTS & INCENTIVES

## ELECTRIC HOMES NEW CONSTRUCTION

Submit this completed form along with your application to [BusinessEE@ComEd.com](mailto:BusinessEE@ComEd.com)

**ANTICIPATED 2020 ELECTRIC HOMES NEW CONSTRUCTION PARTICIPATION:**

	Number of qualifying single-family homes
	Number of qualifying units in multi-unit buildings (duplex, townhomes, 2-4 flats)
	Anticipated incentive

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**MINIMUM PROGRAM REQUIREMENTS<sup>2</sup>**

- All-electric space heating, water heating and clothes dryer
- Air tightness <2.5 air changes per hour at 50 Pascals depressurization
- Cold climate air-source heat pump space heating & cooling, ≥1.8 SEER, ≥11.0 HSPF or ground-source heat pump, ≥2.2 EER, ≥4.4 COP
- Heat pump water heating, ≥3.45 UEF
- All LED interior and exterior lighting
- ENERGY STAR<sup>®</sup> certified refrigerators, dishwashers and clothes washers
- Electric clothes dryer with moisture-sensing feature or heat pump dryer
- ENERGY STAR certified smart thermostats, for compatible HVAC systems
- Kitchen and bathroom faucets rated for ≤1.5 gallons per minute, and showerheads rated for ≤2.0 gallons per minute
- Indoor air quality and comfort requirements:
  - Compliance with current Illinois Energy Conservation Code prescriptive envelope and window requirements. Continuous exterior insulation or other thermally-broken construction techniques are recommended.
  - Compliance with ASHRAE 62.2.
  - Kitchen ventilation required to outdoors.
  - Sealed sump basin and sealed plumbing rough-in (if applicable)
  - Thermal isolation of slab-on-grade (if applicable)

\$2,000  
INCENTIVE  
PER HOME  
(limits apply)

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**ADDITIONAL RECOMMENDATIONS**

<ul style="list-style-type: none"> <li><input type="checkbox"/> Induction range cooktop</li> <li><input type="checkbox"/> Solar photovoltaic (PV) ready - <a href="http://ComEd.com/Solar">ComEd.com/Solar</a></li> <li><input type="checkbox"/> Electric vehicle ready - <a href="http://ComEd.com/EV">ComEd.com/EV</a></li> </ul>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Battery storage ready</li> <li><input type="checkbox"/> ComEd Hourly Pricing - <a href="http://ComEd.com/HourlyPricing">ComEd.com/HourlyPricing</a></li> <li><input type="checkbox"/> ComEd Peak Time Savings - <a href="http://ComEd.com/PTS">ComEd.com/PTS</a> (not applicable to net metering customers)</li> </ul>
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THINK SOLAR! [ComEd.com/Solar](http://ComEd.com/Solar)

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<sup>2</sup> Homes achieving 30% energy reduction compared to current Illinois Energy Conservation Code by measures other than those requirements may also be eligible. To be eligible for this performance-based compliance approach, the following prerequisites must be met: air tightness must be <2.0 ACH50@75; installed heating capacity <2.5 tons per square foot; and equipment rating must be based on Air Conditioning Contractors of America Manual J. All building load calculations or similar, where applicable. Participating homes must have all electric space heating, water heating and clothes dryers. Please consult a program representative to confirm eligibility by calling 855-433-2700 or emailing [BusinessEE@ComEd.com](mailto:BusinessEE@ComEd.com).

Terms and conditions apply. Offers are subject to change. Actual savings will vary by customer's energy usage and rate.  
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The ComEd Energy Efficiency Program is funded in compliance with state law.

# EHNC Insight & Strategy

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- Current market for high performance electric homes in ComEd territory is only ~30 homes per year
  - 2019 pilot research showed high performance electric homes can narrowly be the most economical choice overall, compared to gas homes
- Interviews suggest value proposition for these homes includes a range of benefits:
  - Comfort, health, environment, safety, resilience, no gas connection, total cost, future-proofing
- To convince “fast-followers,” we will have to address a variety of technical questions/concerns
  - Incorporating heat pump water heaters inside homes
  - Air source heat pump performance in very cold weather
  - Lack of contractor familiarity
  - Requirements to achieve air tightness requirement
- 2020 to-date progress (commitments):
  - 2 townhomes— Forest Park / builder-led
  - 3-flat— Pilsen / small developer-led
  - 2-6 Accessory Dwelling Units— Evanston / design/build-led
  - 2-4 single-family homes — Evanston, Oak Park / architect-led