NEW YORK STATE CLEAN HEAT:
Advancing Building Electrification through Clean Heat and Cooling
New York is transforming its power grid to produce clean, zero-carbon electricity.

**RENEWABLE ENERGY/CLEAN ENERGY STANDARD**  
70% electricity from renewable energy  

**CLEAN ELECTRICITY**  
100% zero-emission electricity  

**GHG REDUCTION**  
85% reduction in greenhouse gas emissions from 1990 levels

- **by 2030**  
  - GHG REDUCTION  
    - 40% reduction in greenhouse gas emissions from 1990 levels

- **by 2040**  
  - CLEAN ELECTRICITY

- **by 2050**  
  - RENEWABLE ENERGY/CLEAN ENERGY STANDARD
  - 70% electricity from renewable energy
Increasing scale of building electrification is critical to reaching our greenhouse gas emission goals and reducing local pollution.

There are more than 6.2 million* buildings in New York. Over the next 30 years, 500 buildings per day need to be decarbonized. 100% of new construction projects need to be all electric.

*Energy Efficiency and Housing Advisory Panel Recommendations Presentation to the NYS Climate Action Council for Consideration in the Scoping Plan May, 2021
Our Path:
Energy Efficiency + Electrification
One third of GHG emissions are from heating and cooling buildings in New York.
NYS Clean Heat will save **4 TBTus** of energy with high-efficiency heat pumps by 2025 and will build the foundation for continued market growth.

**Increase consumer demand** for ground source heat pumps and cold climate air source heat pumps, converting over 130,000 buildings to electric heating and cooling.

Additionally LIPA is providing consumer incentives to deliver an additional 30,000 installations through a program administered by PSEG Long Island.

**Ensure capacity to meet consumer demand** by **training 14,000 workers** across the heat pump supply chain and **increasing availability of distributor heat pump stock by 50%**.

**Reduce the cost of heat pump installations** by at least **25%**.
NYSERDA and NYS Utilities Working Together to Impact the Market

$454M
Incentives (Utilities)

$230M
Market Development Investments (NYSERDA)
$454M Statewide Utility Rebate Program to Drive Adoption

Rebates
- Increase consumer demand by lowering overall installation cost of cold climate air source heat pumps, ground source heat pumps, and heat pump water heaters
- Require contractors to install eligible equipment

Qualified Contractors
- Only NYS Clean Heat-qualified contractors are eligible for incentives
- Contractors submit the statewide rebate application on behalf of the consumer

Ensuring Quality Installs & Satisfied Consumers
- Contractor guidance on eligible equipment and how to size, select and install in cold climates
- QA/QC protocols and field assessment checklists
- Best practices for product operation and maintenance
A collaboration between NYSERDA and six of the State’s investor-owned electric utilities ensures statewide delivery.

- Maintains Consistent Program Design & Delivery
- Interfaces with Key Stakeholders
- Coordinates Supporting Activities Including Workforce Trainings & Marketing
Market Development Investments: $230M

- $38M Develop the Workforce
- $61M Build Consumer Demand
- $1M Develop 2030 Building Electrification Roadmap
- $31M Support LMI Populations
- $60M Innovate New Technologies
- $12M Build Supply Chain
- $27M Get Homes Heat Pump Ready

In addition to the NYS Clean Heat Market Development investments shown here, NYSERDA is investing over $100M in new construction through 2025 focused primarily on all-electric decarbonized buildings.
Building Electrification Roadmap

- **2030 Market Vision:** Define cost-effective and attractive heat pump solutions across market segments and building types
- **Chart our Path:** Document public policies, investments and milestones for the next 10 years
- **Engage the Industry and Stakeholders:** Jointly chart a path forward that is relevant and customer-centric
- **Complete in Q1 2022**
Develop the Workforce

- **Support Disadvantaged and Displaced Workers:** Develop career pathways in HVAC and heat pumps
- **Grow the Pool of Qualified Installers:** Community-based training, cooperative training with manufacturers, support for degree and certificate programs
- **Address Skill Gaps:** Enhance training curriculum, provide equipment, train more trainers
- **Train 14,000 workers** across heat pump supply chain
Build Consumer Demand

- **Statewide Marketing Campaign:** Increase awareness and education and promote benefits while supporting the supply chain with resources and cooperative advertising.

- **Community Outreach:** Support local grassroots education, awareness, lead generation and aggregation campaigns.

- **Critical Tools:** Assess project feasibility, accelerate customer decision-making, and lower acquisition costs.

- **Technical Assistance:** Residential energy audits, no-cost technology screenings or feasibility studies for large buildings.
Innovate Clean Heating and Cooling Technologies

- **Scale Multi-Building Systems**: Demonstrate multi-building community geothermal systems to achieve cost reduction and scale, attract competent solution providers to focus on the NYS marketplace, and popularize win-win business models

- **Spur R&D**: Technology advancement competitions, building demonstrations and validation support, drive commercialization and replication

- **Demonstrate Effectiveness**: Engage commercial property owners and solution providers to demonstrate building decarbonization and electrification systems in high-rise buildings
Support low- to moderate-income (LMI) households

- **Develop Best Practices:** Outline heat pump types and install process for common LMI building types
- **Demonstrations and Pilots:** Identify replicable models for heat pump deployment
- **Financial Support:** Test out models for providing financial incentives and integrated energy-efficiency heat pump solutions for LMI households
- **Education:** Teach consumers how to operate and maintain heat pump systems
Build Supply Chain

- **Market Insight**: Collect input from distributors, vendors, and original equipment manufacturers to identify opportunities and strategies.

- **Partnerships**: Align with utilities to engage heat pump manufacturers and distributors directly to increase investment and accelerate uptake.

- **Trade Ally Support**: Provide business development support, tools, and resources.
Get Homes Heat Pump Ready

- **Comfort Home:** Develop and promote building envelope packages for consumers, in coordination with utilities.

- **Reduce Customer Acquisition Costs:** Simplify envelope packages and incentives to reduce customer acquisition costs.

- **Increase Contractor Base:** Support new business models and enable more businesses to offer envelope and heat pump services.

- **Utility Coordination:** Provide additional heat pump incentives following installation of envelope improvements.
NYS Clean Heat is already helping New Yorkers transition away from burning fossil fuels, create better spaces to live and work, and strengthen their communities.

**Projects:**
11,845 installations
*(April 2020–June 2021)*

**Workforce:**
1,295 individuals trained
*(April 2020–June 2021)*

**Contractor Capacity:**
516 installers
*(as of November 2021)*

**Marketing:**
157,698 consumers learned about heat pumps at cleanheat.ny.gov
*(April 2020–June 2021)*