

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



**by 2030**



## GHG REDUCTION

40% reduction in greenhouse gas emissions from 1990 levels

## CLEAN ELECTRICITY

100% zero-emission electricity



**by 2040**

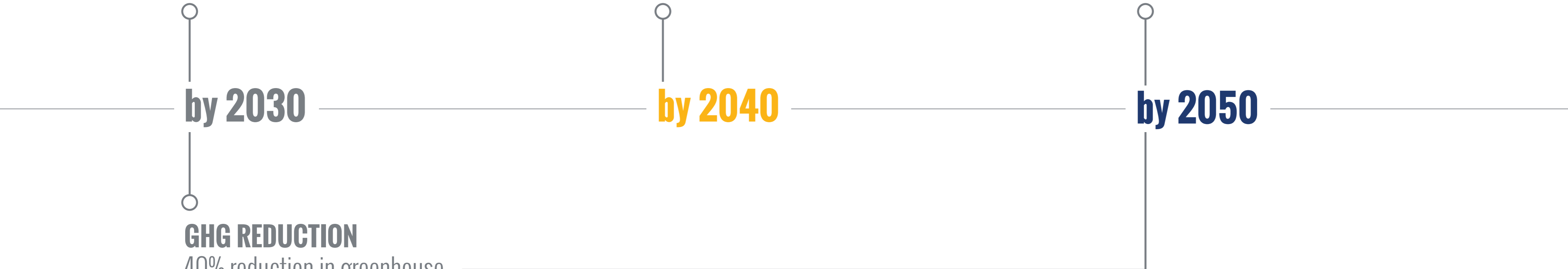


## GHG REDUCTION

85% reduction in greenhouse gas emissions from 1990 levels



**by 2050**



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

**500 buildings**

**per day** need to be decarbonized  
over the next 30 years

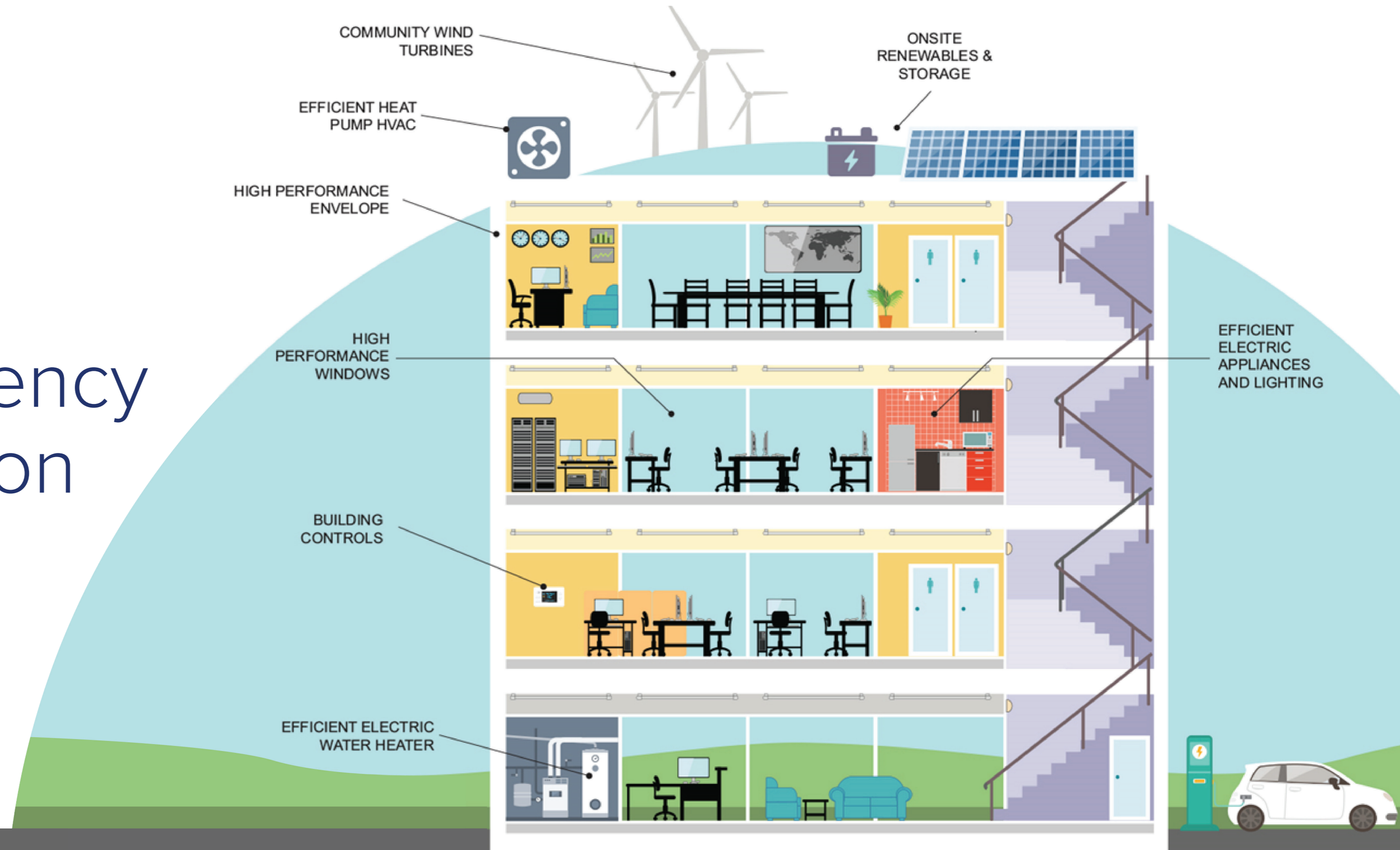
**100%**

of new construction projects  
need to be all electric

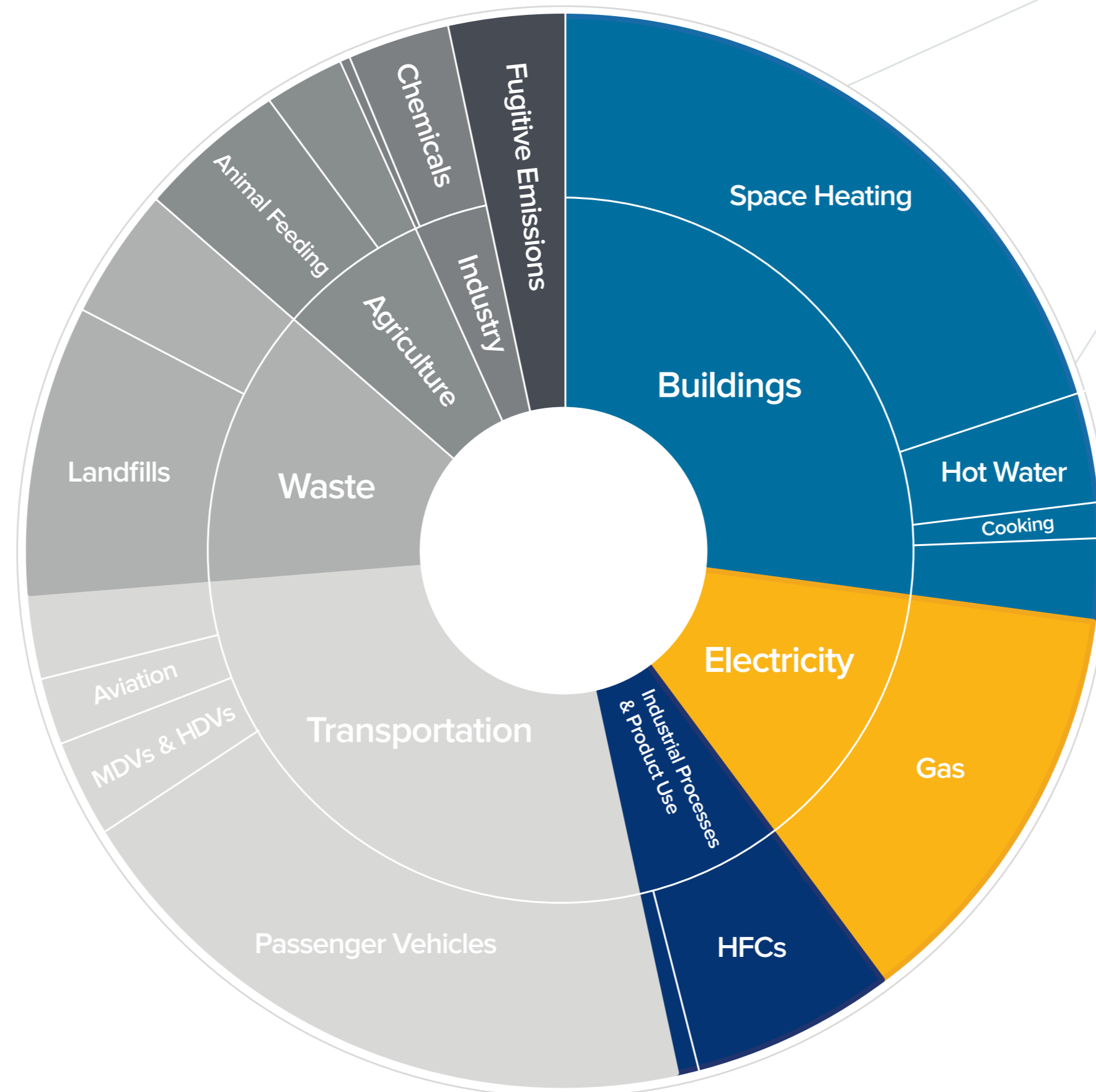
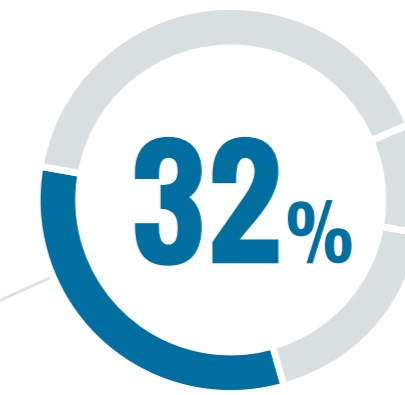


\*Energy Efficiency and Housing Advisory Panel  
Recommendations Presentation to the NYS Climate Action  
Council for Consideration in the Scoping Plan May, 2021

# 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.



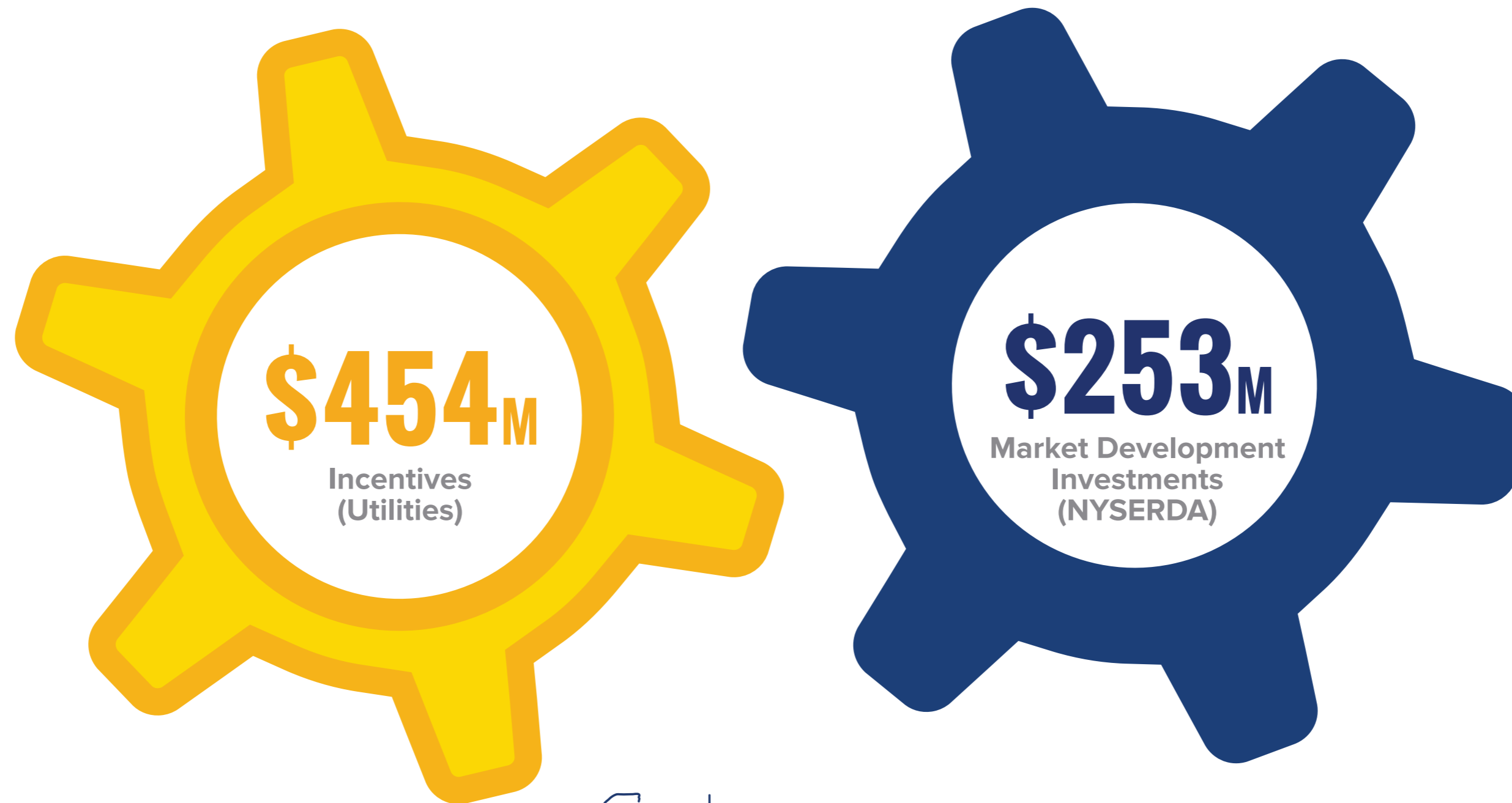
**Increase consumer demand** for ground source heat pumps and cold climate air source heat pumps, converting over 130,000 buildings to electric heating and cooling.

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



NYS Clean Heat

# \$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

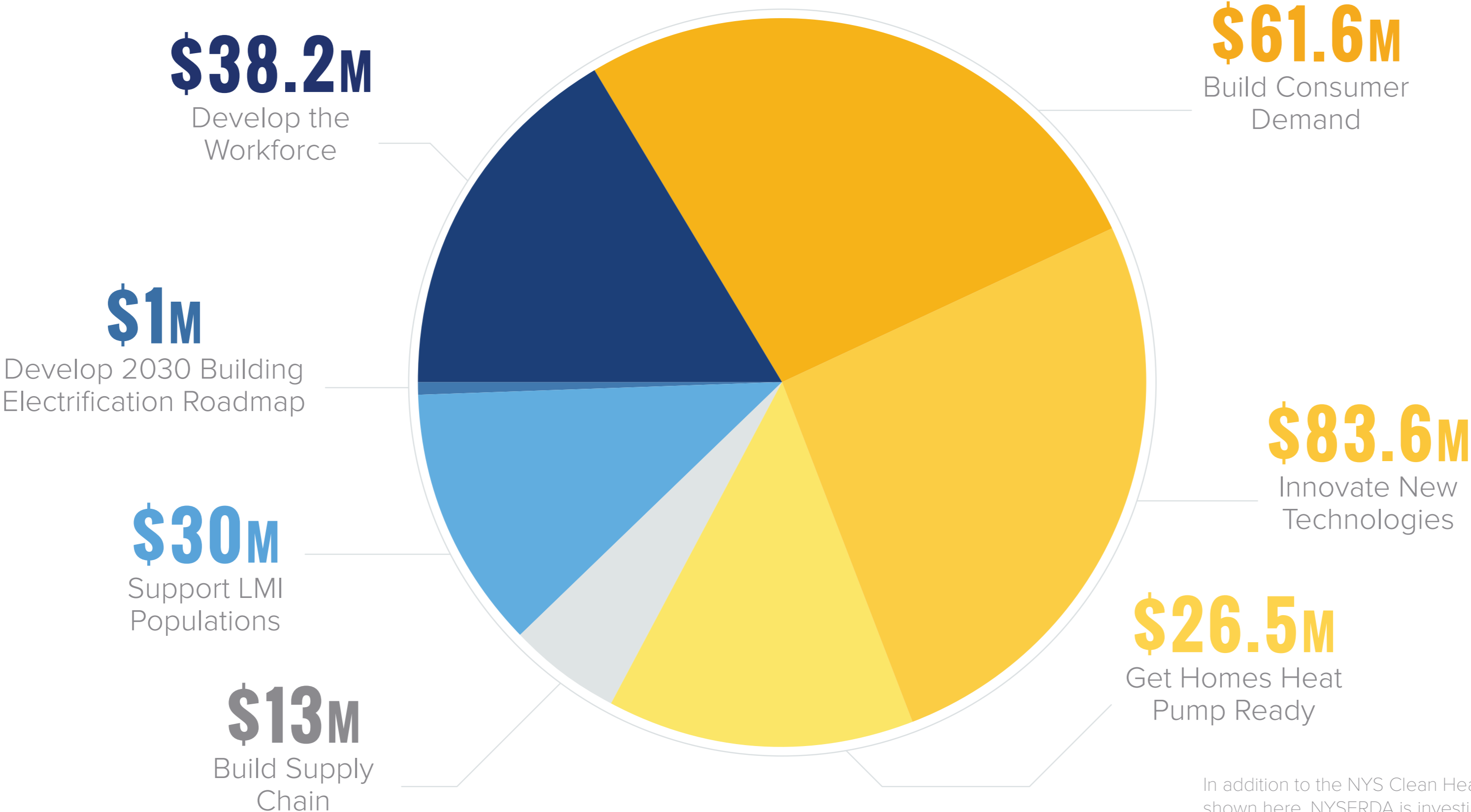


A collaboration between NYSERDA and six of the State's investor-owned electric utilities ensures statewide delivery.



- Maintains Consistent Program Design & Delivery
- Interfaces with Key Stakeholders
- Coordinates Supporting Activities Including Workforce Trainings & Marketing

# Market Development Investments: \$253M



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 2023**

# 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 community thermal energy networks 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:

**22,437**

installations

Source: 2021 NYS Clean Heat  
Annual Report

WORKFORCE:

**3,165**

individuals trained

Source: 2021 NYS Clean Heat  
Annual Report

CONTRACTOR  
CAPACITY:

**750**

installers

Source: 2021 NYS Clean Heat  
Annual Report

MARKETING:

**561,630**

consumers learned  
about heat pumps at  
**cleanheat.ny.gov**

(as of April 2022)