

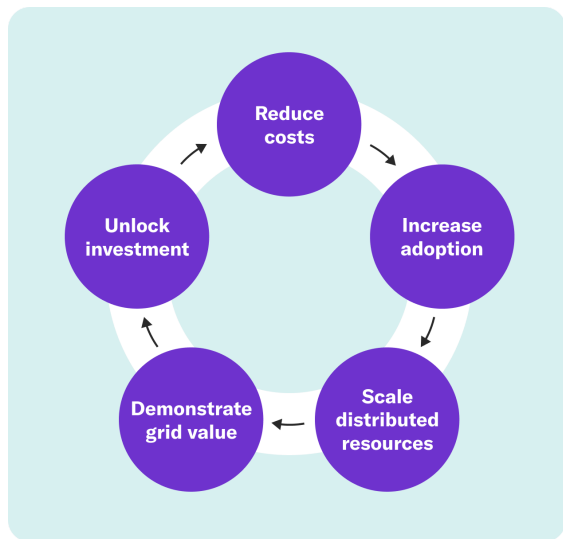
## Unlocking energy affordability in North Carolina

By treating households as energy infrastructure, North Carolina can make whole-home electrification, rooftop solar, and battery storage affordable for **1.5 million additional households** — unlocking **\$25,400 in average lifetime savings** per household and **\$38.9 billion statewide**.<sup>1</sup> This means a more efficient, resilient energy system that can meet growing demand without driving up costs.

### Why this matters now

North Carolina is facing a growing energy affordability challenge. As electricity demand grows and the grid ages, utilities are ramping up spending on new generation and transmission — costs that will ultimately be passed on to ratepayers.

Yet even as spending accelerates, the system is underinvesting in the lowest-cost ways to reduce bills and meet energy needs: efficient electric appliances, rooftop solar, and battery storage.



In *Homegrown Energy: A policy blueprint for energy affordability*, we outline a set of interlocking policies that correct this imbalance by directing a meaningful share of energy system investment toward homes. Together, these policies create a self-reinforcing cycle that drives down costs and scales adoption over time.

**The result is a more affordable, flexible, and resilient energy system — one that delivers immediate benefits to families while reducing long-term costs for all ratepayers.**

<sup>1</sup> Affordability is defined as a household's ability to adopt home energy upgrades at the same or lower total cost — accounting for both upfront and operating costs — than replacing existing equipment with new like-for-like systems. Lifetime savings reflect average household savings over 15 years.

# How North Carolina unlocks energy affordability

## Today's baseline:

Only **72,200** households in North Carolina can afford home energy upgrades under current market conditions<sup>2</sup>

## Policy interventions

### Reduce soft costs:

**+ 337,800** more households could afford home energy upgrades  
*Cut red tape to lower project costs and increase the impact of every other policy*

### Align system incentives and investment:<sup>3</sup>

#### Data centers pay

*Require AI data centers to invest in distributed energy resources and household upgrades*

**+ 600,500**  
households

#### Non-pipeline alternatives

*Redirect gas infrastructure spending toward electrification, avoiding costly pipeline investments*

**+ 616,900**  
households

#### Inclusive utility investment

*Enable utilities to fund the upfront cost of upgrades and recover those costs through energy bill savings*

**+ 595,700**  
households

#### Electrification-friendly rate design

*Align electricity pricing with system costs to lower operating costs for electrified homes*

**+ 110,000**  
households

### Ensure households are paid for the value they provide:

Households where home energy upgrades are affordable can join **virtual power plants**, becoming grid assets and earning compensation

## If North Carolina invests in households as an energy solution:

**1.6 million**

Households could afford home energy upgrades — lowering system costs while building a more flexible and resilient grid<sup>4</sup>

<sup>2</sup> "Home energy upgrades" includes whole-home electrification, solar, and storage.

<sup>3</sup> Values shown reflect the additional number of households for which home energy upgrades become affordable under each policy, assuming soft cost reductions have already been applied.

<sup>4</sup> The total impact is not the sum of individual policy impacts, as these policies interact and their effects partially overlap.