

Strategic Electrification

TRANSITIONING FROM FOSSIL FUELS TO
RENEWABLE ELECTRICITY

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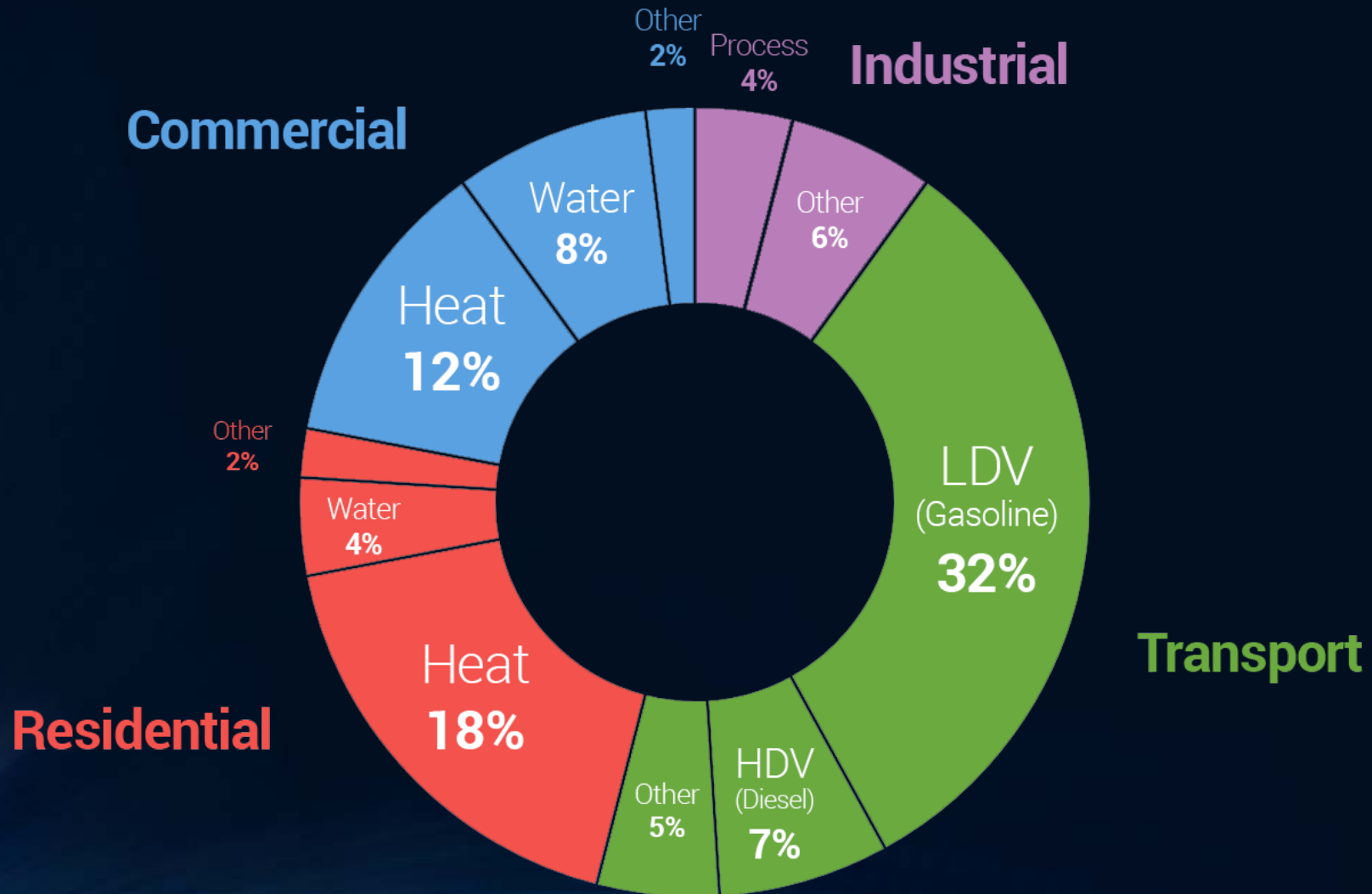


“Strategic Electrification” –

Powering end uses with electricity instead of fossil fuels in a way that increases energy efficiency and reduces pollution, while lowering costs to customers and society, is necessary to reduce carbon emissions by 80% while driving economic development.

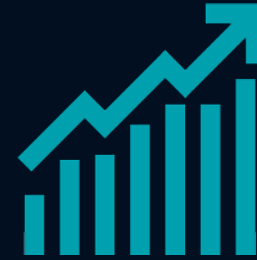
Northeast Energy Efficiency Partnerships “Action Plan To Accelerate Strategic Electrification in the Northeast”

Direct Fossil Fuel Use



Three Key Strategies

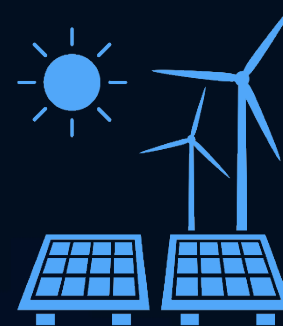
1. Dramatically improve energy efficiency



2. Move as many end-uses as possible to electricity



3. Modernize the electric grid



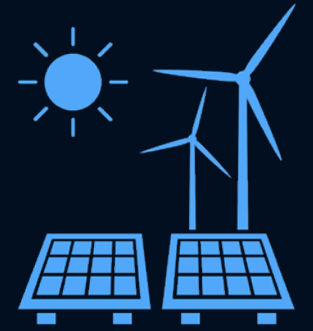
Energy Efficiency



Advanced Electric Technologies



Modernize the Grid



- Renewables
- Distributed energy resources (community and building solar, wind)
- Energy storage & control
- Two-way grid communications
- Micro grids
- Load shifting
- Demand response
- Time-of-use rates

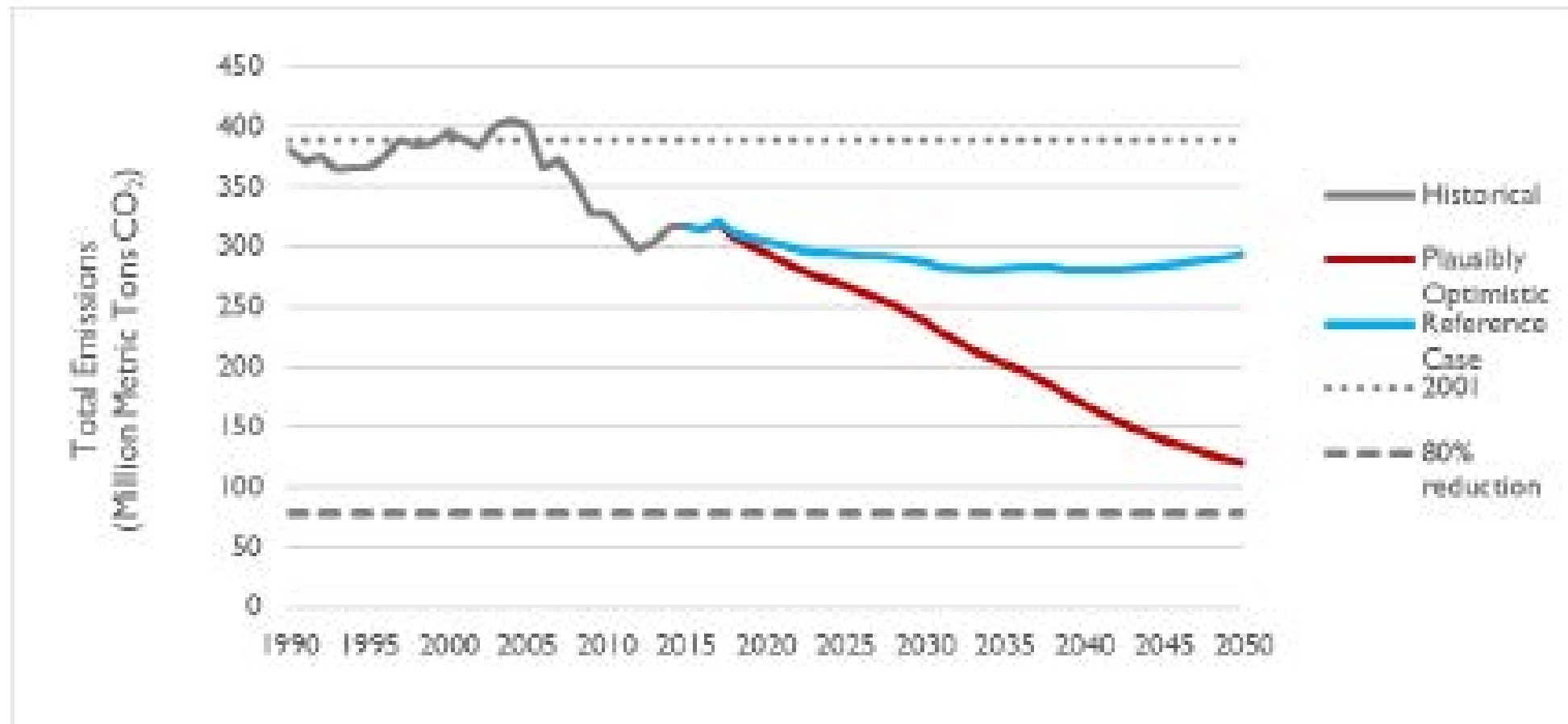


Model Strategic Electrification Policy

- Vermont's Renewable Energy Standard (Act 56)
 1. **Tier 1. Total Renewable Energy**
 - Grid to be 75% renewables by 2032
 2. **Tier 2. Distributed Renewable Generation**
 - 10% small local renewables by 2032
 3. **Tier 3. Energy Transformation**
 - Utilities must reduce customer fossil fuel use each year, starting at 2% and increasing to 12%/year by 2032



Greenhouse Gas Emissions



Pathway to Decarbonization through Strategic Electrification

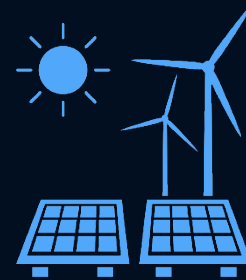
1. Deep Energy Efficiency



2. Advanced Electric Technologies



3. Grid Modernization



= Decarbonization

Resources – Northeast Energy Efficiency Partnerships



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