



BUREAU OF ENERGY AND  
TECHNOLOGY POLICY

December 8, 2022

# Energy Efficiency & CT's Next Comprehensive Energy Strategy

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# Connecticut's Energy - Climate Commitments

## Conn. Gen. Stat. 22a-200a (2019)

- Requires economy-wide greenhouse gas emission reductions of 45% by 2030 and 80% by 2050 below 2001 levels

## Public Act 22-5 (2022)

- Requires 100% zero emission electricity supplied to in-state electric customers by 2040

## Executive Order 21-3

- Directs DEEP to include in the next Comprehensive Energy Strategy strategies to:
  - Provide for more affordable heating & cooling
  - Achieve reductions in GHG emissions from residential and industrial facilities
  - Improve the resilience of the state's energy sector



# CT's Next Comprehensive Energy Strategy

- Objectives:
  - Examine future energy needs in the state and identify opportunities to reduce costs, ensure reliable energy availability, and mitigate public health and environmental impacts of CT's energy use
  - Provide recommendations for legislative and administrative actions to aid in achievement of interrelated environmental, economic, security, and reliability goals

**Scope:** electricity, thermal energy, and fuels for transportation



# DEEP's Approach to the CES

## 5 Key Lenses

- **Climate** – meeting greenhouse gas reduction obligations under Global Warming Solutions Act
- **Equity** – energy decisions that produce equitable outcomes
- **Affordability** – energy decisions that produce affordable outcomes
- **Economic development** – workforce development; economic competitiveness
- **Reliability & Resilience** – energy system improvements and load balancing

## Key Strategies

- Build on and/or modify findings and recommendations of 2013 and 2018 CESs
- Consider emerging issues not addressed in a prior CES
- Rely on results from recent, major quantitative studies where appropriate rather than duplicate efforts



# *How Energy Efficiency & Demand Response Fit In*



# Energy Efficiency

- Climate

- Equity

- Affordability

- Economic development

- Reliability & Resilience



- The majority of New England's electricity and thermal needs are still met with fossil fuels
- So the less kWhs, Btus, or gallons needed, the few GHGs emitted

# Energy Efficiency

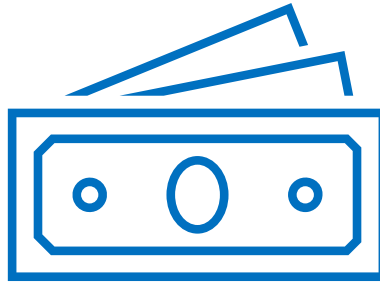
- Climate
- Equity
- Affordability
- Economic development
- Reliability & Resilience



- The least efficient homes are often housing those who can least afford high energy bills

# Energy Efficiency

- Climate
- Equity
- **Affordability**
- Economic development
- Reliability & Resilience



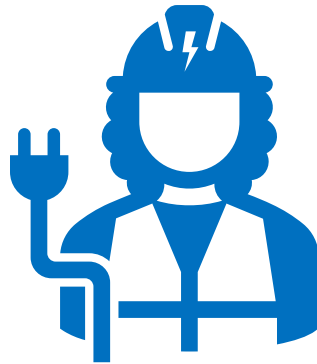
- **Energy efficiency is often the lowest cost resource!**
- **By reducing peak we lower costs for everyone**
- **Mitigate exposure to price volatility**





# Energy Efficiency

- Climate
- Equity
- Affordability
- ***Economic development***
- Reliability & Resilience



- Over 40,000 clean energy jobs exist in CT's economy
- The largest portion of those jobs (over 30,000 of them) are in energy efficiency

# Energy Efficiency

- Climate
- Equity
- Affordability
- Economic development
- **Reliability & Resilience**

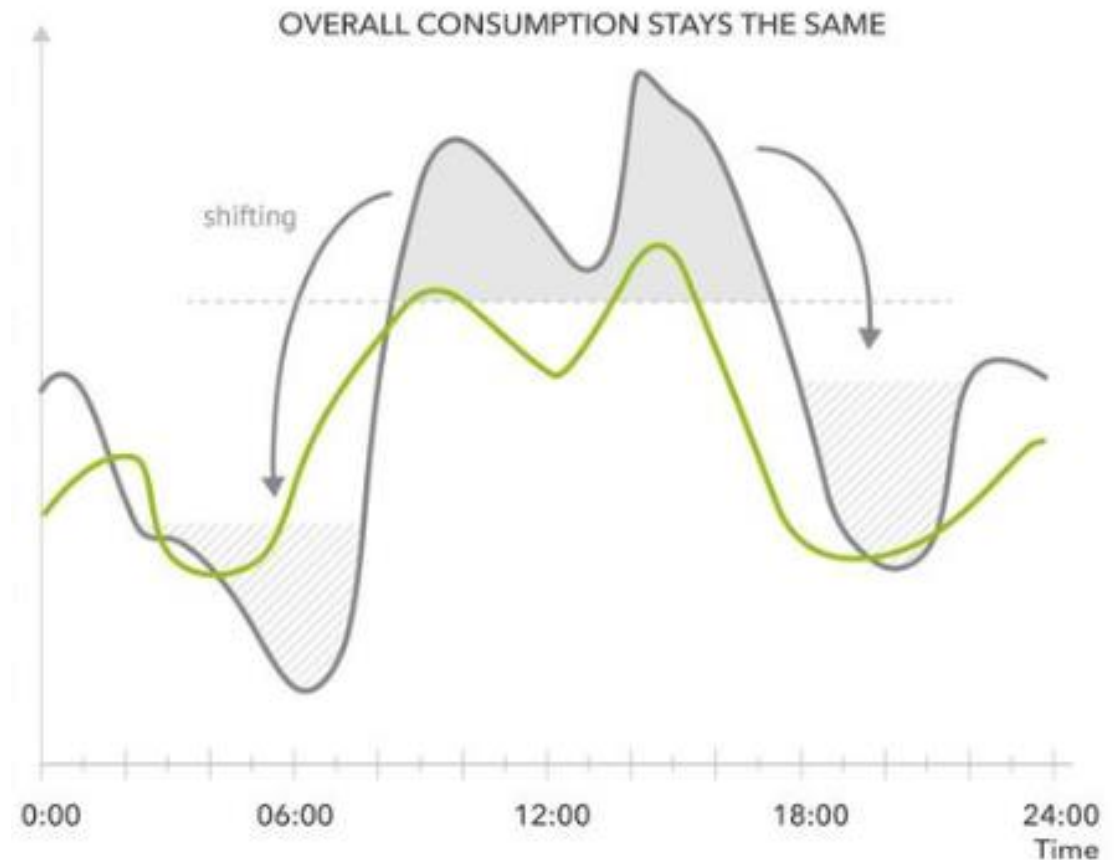


- **Our systems are built to serve peak demand – EE can lower this peak and give us some buffer**
- **Certain EE measures like insulation can help homes to ride out outages**

# Demand Response

What is Demand Response?

It's shifting the **TIMING** of when energy is used





# Demand Response

- Climate

- Equity

- Affordability

- Economic development

- Reliability & Resilience



- Better matching electricity demand to renewable electricity supply

# Demand Response

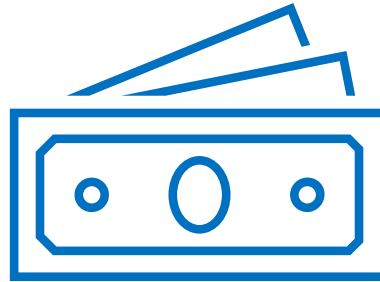
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- When coupled with time of use pricing, DR can give someone more control over their electricity bills

# Demand Response

- Climate
- Equity
- **Affordability**
- Economic development
- Reliability & Resilience

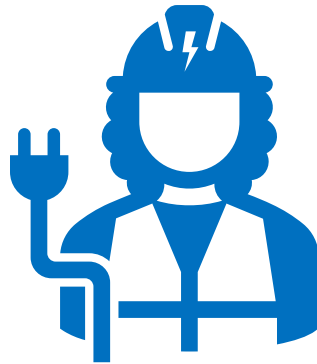


- **Lowering peak saves money for everyone**
- **Potential to reduce overall cost of system upgrades needed with a lot of electrification**



# Demand Response

- Climate
- Equity
- Affordability
- **Economic development**
- Reliability & Resilience



- **There is a large variety of job opportunities tied to DR**
  - **Installing the equipment**
  - **Coding & Software needs**
  - **Communications**
  - **Etc.**

# Demand Response

- Climate
- Equity
- Affordability
- Economic development
- **Reliability & Resilience**



- Can support more effective islanding
- Can speed our transition to larger dependence on local renewable electricity



## How to Engage & Participate

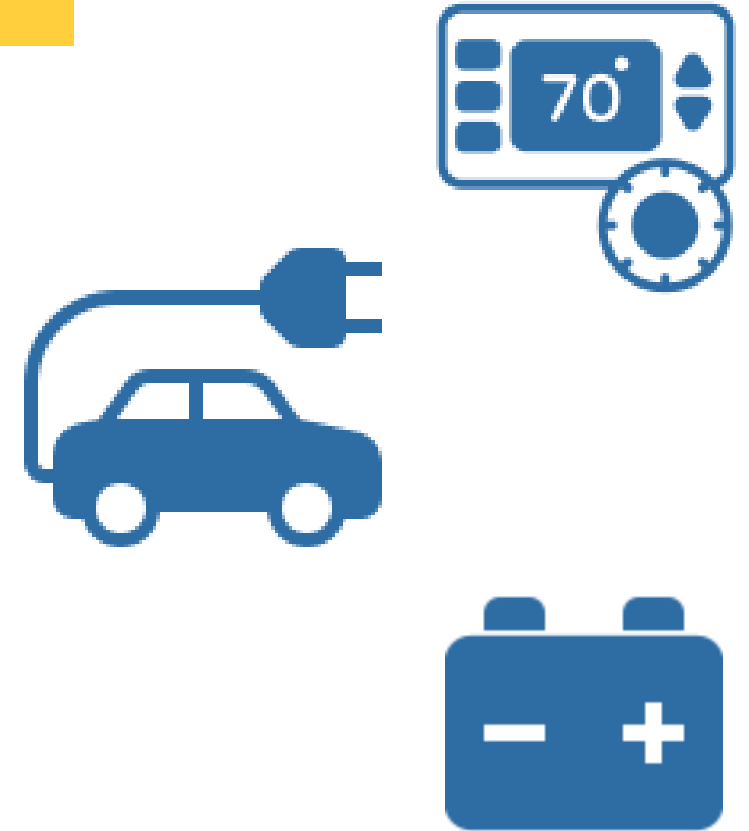
- CT's Energy Efficiency Board
- The Comprehensive Energy Strategy Development Process





# CT's Energy Efficiency Board

- The board evaluates, advises, and assists the state's utility companies in developing and implementing comprehensive, cost-effective energy conservation and market transformation plans
- Usually meets monthly and provides opportunities for public comments
- Their Website:  
<https://energizect.com/eeb/about-eeb>



# Tentative CES Development Timeline

- **Sept-Dec 2022** – Technical Sessions
  - Dec 8<sup>th</sup>: Session 7
  - Dec 15<sup>th</sup>: Session 8
- **November 2022 – January 2023** – Drafting & Public Comment Periods for at least 3 White Papers
  - White papers to be based on topics covered in technical sessions
- **Q1 & Q2 of 2023** – CES Drafting, Public Comment Opportunities, & Listening Sessions

## Technical Session Topics

1. Hard-to-Decarbonize End Uses
2. Heat Pump Market Barriers & Strategies
3. Building Thermal Decarbonization Support Strategies
4. Building Thermal Decarbonization – Economic Potential & Technology Targets [written comment opportunity only – no live technical session]
5. Electric Demand Response
6. Alternative Fuels
7. Methane/Natural Gas Planning & Policies
8. Market-Based Decarbonization Programs & Low-Carbon Incentives

### CES Webpage:

<https://portal.ct.gov/DEEP/Energy/Comprehensive-Energy-Plan/Comprehensive-Energy-Strategy>



# ***Weatherization Barrier Remediation Program***





# Weatherization Barrier Remediation Program

- The program is funded through LIHEAP and ARPA funds. Eligible measures (see below) can be remediated only if they present a barrier to weatherization:
  - Asbestos or Asbestos-like material abatement (**ARPA only**)
  - Vermiculite abatement (**ARPA only**)
  - Mold remediation
  - Moisture control
  - Exhaust/Ventilation installation or repair
  - Knob and Tube wiring repair
  - Energy-related roof repairs (with pre-approval; no roof replacements)
  - Smoke/CO detectors
  - Grading: Minor re-grading of perimeter grounds to correct improper drainage and reduce excessive accumulation of water against the foundation.
  - Gutters/Downspouts: Up to 25 feet of gutter repair/replacement and up to 50 feet of downspout repair/replacement
  - Sump pump system installation/repair
  - Pest control
  - Radon testing and mitigation
  - Testing and remediation of air exchange issues, filtration, and indoor air quality (IAQ) issues
  - Combustion Testing - includes Clean Tune and Test (CTT), repair of fuel leaks, CAZ testing, distribution systems including ambient air

# Weatherization Barrier Remediation Program

- Customers are referred to the Residential Energy Preparation Services (REPS) program from either WAP or HES-IE
  - Customers apply to either of these two programs; once an energy audit has been performed and a qualified weatherization barrier(s) has been identified, they can be referred to the REPS program
  - Customers are only eligible for REPS if they have been referred from either of these two programs; if a customer wants to participate in REPS but hasn't done WAP or HES-IE, they would need to start by applying to one of those two programs
- In order to be eligible for LIHEAP funds, customers must also apply for CEAP (CT's LIHEAP program)

***Thank** you.*

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