

# Local Energy Solutions

Save Money  
Reduce Emissions  
Drive the Energy Transition

## Lakes Region Planning Commission

June 26, 2023



**CLEAN ENERGY NH**

Your Voice in All Energy Matters



# ABOUT CLEAN ENERGY NH

*New Hampshire's leading clean energy advocate, dedicated to:*



**Strengthening  
NH's Economy**



**Protecting Public  
Health**



**Reducing  
Emissions**

*Learn more & become a member at [www.cleanenergynh.org](http://www.cleanenergynh.org)*

# Who is Clean Energy NH?

- 501(c)(3) nonprofit
- Statewide advocacy & support for clean energy
- Member-based
  - 35 Municipal Members
  - 100+ Business Members
  - 200+ Individual Members
- Three spheres of focus

Business  
NH Clean Tech  
Industry

Policy  
Legislative &  
Regulatory

Municipalities  
Local Energy  
Solutions



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# Business and Municipal Members

Clean Energy	Clean Transportation	High Performance Building	Legal and Financial Services	Manufacturing & High Tech	Municipal Members	Organizing Partners	Utilities
     	 	     	      	   	<p>ATKINSON, NH</p> <p>BEDFORD, NH</p> <p>CLAREMONT, NH</p> <p>DOVER, NH</p> <p>EXETER, NH</p> <p>HANOVER, NH</p> <p>KEENE, NH</p> <p>LEBANON, NH</p> <p>RYE, NH</p> <p>STRATHAM, NH</p> <p>WEBSTER, NH</p>	     	  

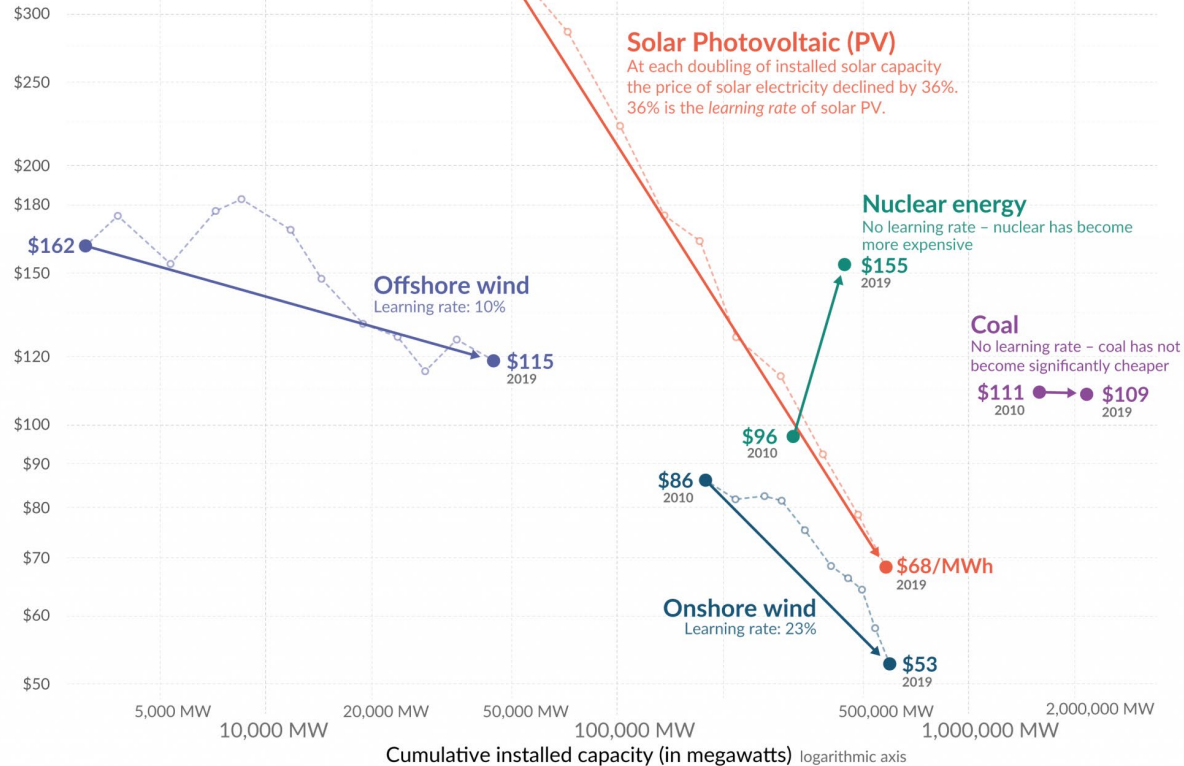




# Electricity from renewables became cheaper as we increased capacity – electricity from nuclear and coal did not

## Price per megawatt hour of electricity

This is the global weighted-average of the levelized costs of energy (LCOE), without subsidies logarithmic axis and adjusted for inflation



Source: IRENA 2020 for all data on renewable sources; Lazard for the price of electricity from nuclear and coal – IAEA for nuclear capacity and Global Energy Monitor for coal capacity. Gas is not shown because the price between gas peaker and combined cycles differs significantly, and global data on the capacity of each of these sources is not available. The price of electricity from gas has fallen over this decade, but over the longer run it is not following a learning curve.

# Levelized Cost of Energy Comparison—Historical Utility-Scale Generation Comparison

Lazard's unsubsidized LCOE analysis indicates significant historical cost declines for utility-scale renewable energy generation technologies driven by, among other factors, decreasing capital costs, improving technologies and increased competition

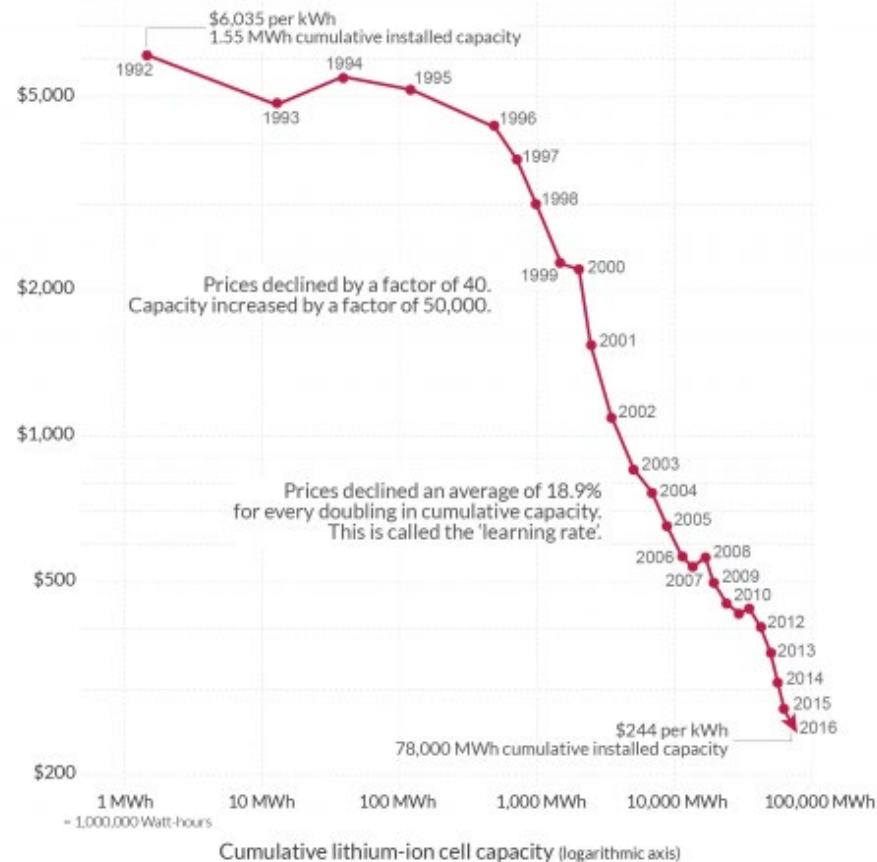
Selected Historical Mean Unsubsidized LCOE Values<sup>(1)</sup>



# Price and market size of lithium-ion batteries since 1992

Price per kilowatt-hour; kWh (logarithmic axis)

\$10,000



Prices are adjusted for inflation and given in 2018 US-\$ per kilowatt-hour (kWh).

Source: Micah Ziegler and Jessika Trancik (2021), Re-examining rates of lithium-ion battery technology improvement and cost decline.

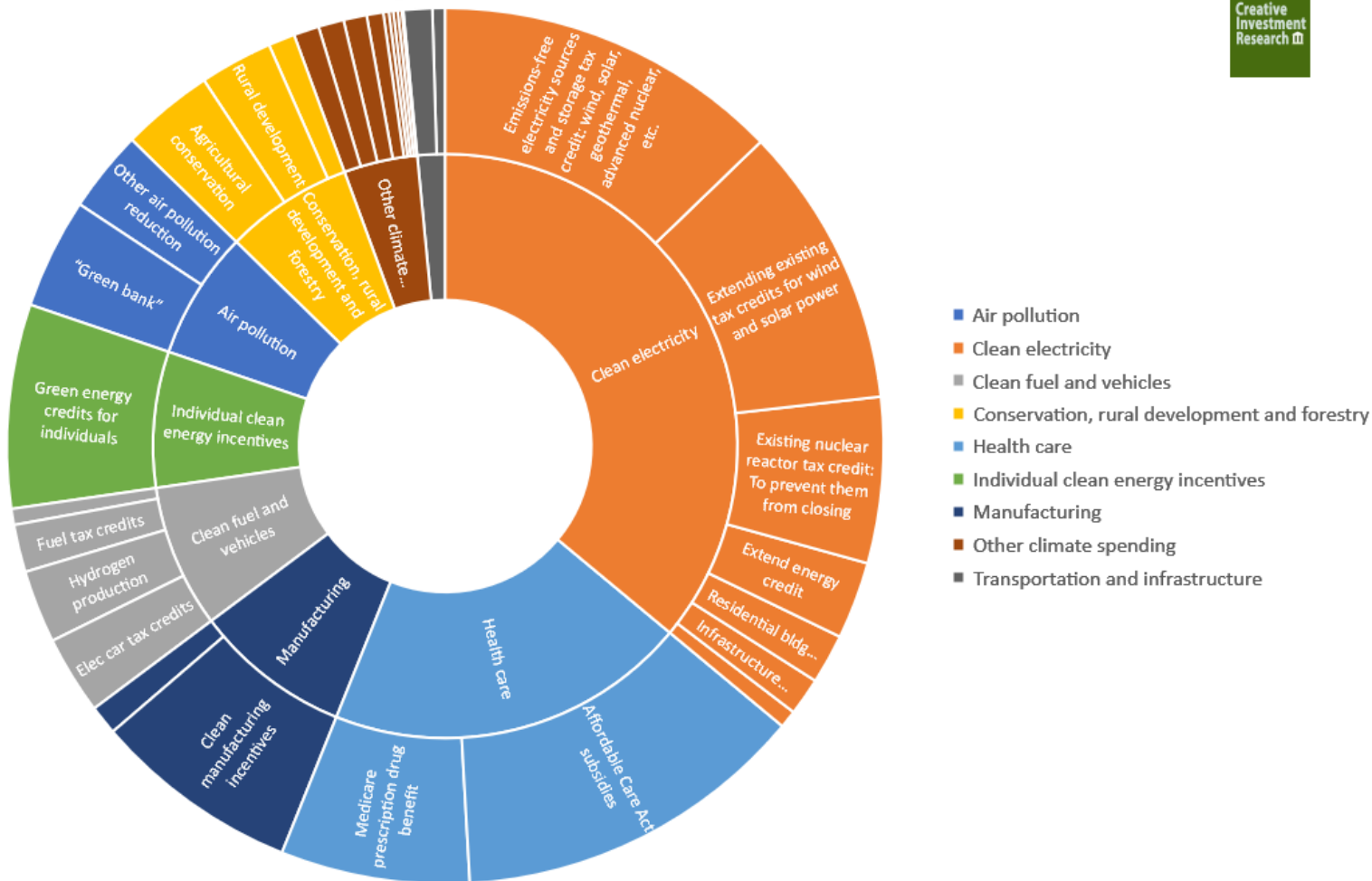
OurWorldInData.org - Research and data to make progress against the world's largest problems.

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# Inflation Reduction Act Spending and Tax Rebates

Detail by Area, Billions of US dollars



# What is the Energy Circuit Rider Program?

- Focus areas are 1) project identification, 2) energy use benchmarking, and 3) funding and implementation.
- Identify projects, leverage funding opportunities, **make connections**, assist with presenting and marketing projects to voters, write RFPs, write grants, and assist new Energy Committees.



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## IN THE NORTH COUNTRY

As the **North Country Energy Circuit Rider**, Melissa Elander assists high energy-burden communities with implementing **energy projects** that **reduce operating costs and improve sustainability**. In 2021, Melissa worked with North Country communities to assist with providing resources and securing investments to **save hundreds of thousands of dollars annually**. In 2022, we will expand the program in the North Country with the Community Energy Coordinator focused on public outreach and engagement with residents and small businesses.



North Country  
Projects

### TOWNS & SCHOOLS

GORHAM

LED lighting for the Town Hall, Fire Station, Public Works, and Salt Garage

PITTSBURG

LED streetlights

STRATFORD

LED lighting and weatherization for the Fire Station and Town Hall, and solar array at the Town Hall

SUGAR HILL

Municipal solar array

WHITE MOUNTAINS  
REGIONAL HIGH SCHOOL

LED lighting

### PROJECTS

\$3.1M

invested in clean energy  
projects in the North Country

CO<sub>2</sub>  
26,692

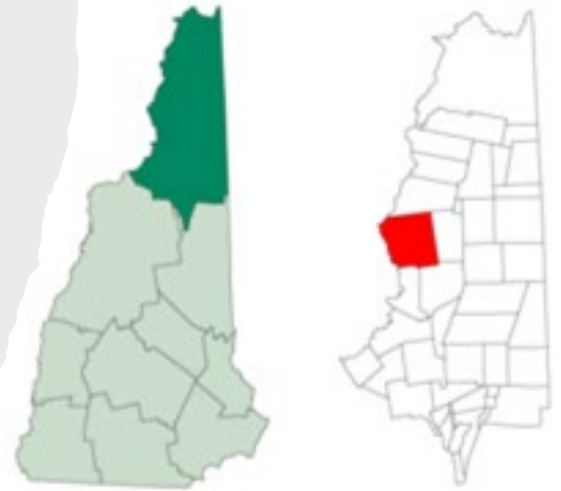
tons of emissions  
avoided

\$199,161

annual energy savings

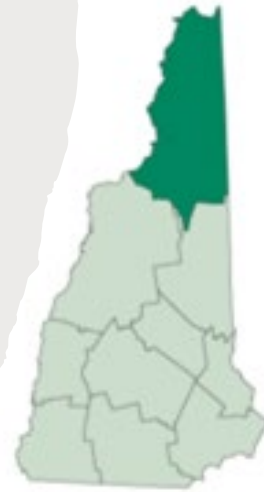
# Stratford

- Worked with the Select Board to create and fund a Solar Capital Reserve Fund.
- Received funding from Eversource and CDFA to complete energy audits at the Town Hall, Fire Station, and Library.
- Completed lighting and insulation upgrades using NH Saves incentives.
- Assisted with USDA Community Facilities grants to install solar at the Town Hall and Transfer Station.



# Gorham

- LED lighting upgrades at schools and municipal buildings with NH Saves incentives and USDA grants.
- Helped develop Energy Committee.
- Assisted with CDFA grants to complete engineering assessments of roof systems and energy audits.
- Energy Benchmarking using EPA Portfolio Manager.
- Outreach to voters ahead of Annual Meeting.
- Worked with Town Manager to establish (with approval from the voters) a Solar Capital Reserve Fund.
- Assisted with USDA Community Facilities grant for solar at the elementary school, to be installed 2023.
- Solar at the Public Works Garage to be funded using Congressionally Directed Spending, USDA grant, capital reserve funds, and NH CDFA loan





# Community Power



- Save money for residents of all income brackets
- Easy introductory project for new energy committees
- Can bring the benefits of community scale renewable energy to all customers

# Start an Energy Committee or Commission

- Familiarize yourself with what an Energy Committee is, and why they exist - Take a look at our fact sheet on RSA 38 D: 1-6
  - [NH Energy Commissions and Committees Fact Sheet](#)
- Your Municipality may adopt or rescind a Town Sponsored energy Committee or Commission at any appropriately warned meeting
  - Energy Committees or Commissions can be created for the purpose of study, planning, and utilization of energy resources for municipal buildings and built resources.
  - Energy Commissions must annually research town energy use and cost and make a report available to the town. They can also make recommendations to local boards and committees around energy, including your local zoning practices.



**LOCAL ENERGY SOLUTIONS**  
Conference

**SAVE-THE-DATE**

**THURSDAY, NOVEMBER 2, 2023**  
**MANCHESTER, NH**

**#LES2023**