



Community Roundtable: Climate Threats to Hudson



BACKGROUND

In previous workshops, with over 200 participants, held in Hudson over the past 4 years, participants noted that-

- Climate change impacts on NE Ohio are increasingly visible, prompting a need for a response at the municipal level.
- Local barriers to Renewable Energy and Efficiency should be removed
- Water Management requires additional infrastructure upgrades
- Climate change imposes new threats to Health and Safety

Needs previously identified

- New risk management strategies are needed in Hudson and the region
- Evacuation routes and other safety protocols for severe storms
- Threats from new vector borne diseases in our area
- Need for increased air and water pollution controls

Why Hudson?

- LWV Hudson climate change investigation identified local issues that can be addressed by local actions.
- Conditions are such that we (residents) are large contributors of emissions in the area.
- With home rule, our community can make a real difference now.
- The US Supreme Court tells us to address climate change as a local, rather than national, problem.

Hudson is one of the highest generators of residential greenhouse gases in the area

The New York Times

CLIMATE | The Climate Impact of Your Neighborhood, Mapped

Give this article

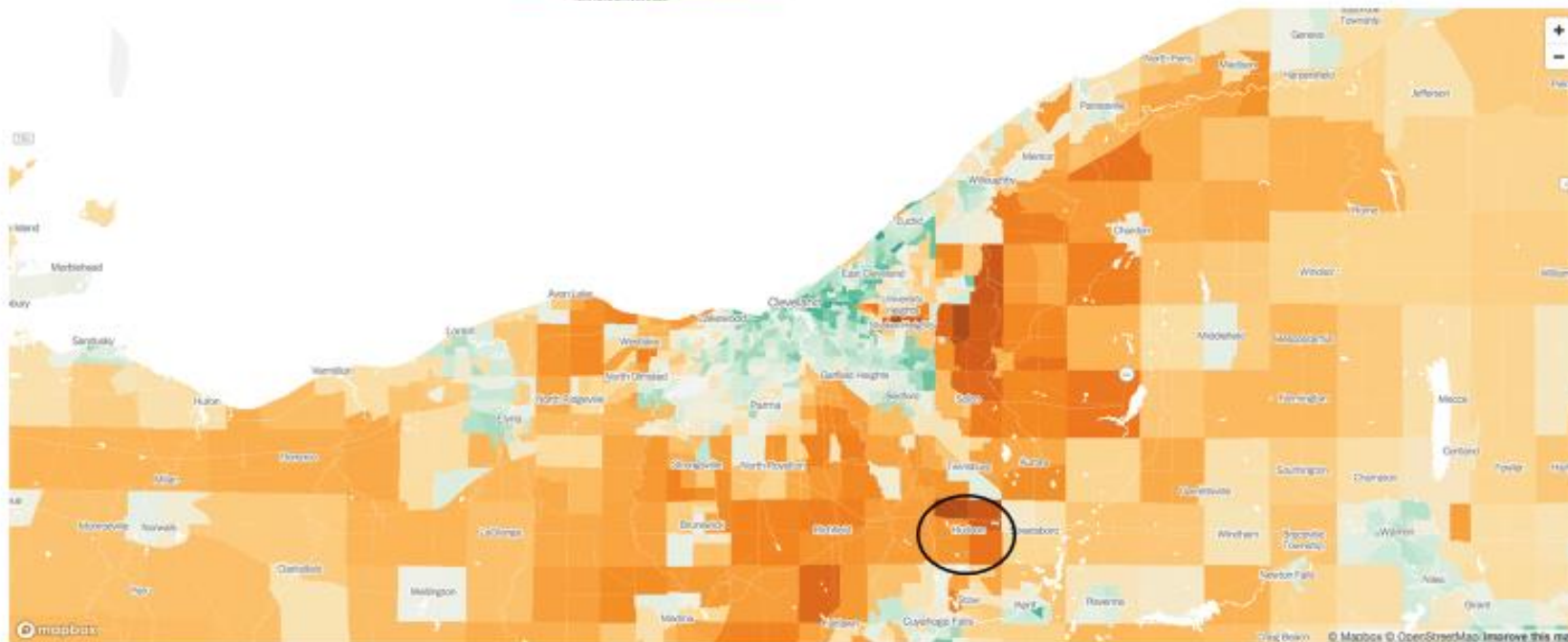


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Cleveland metro area and surrounding communities from:

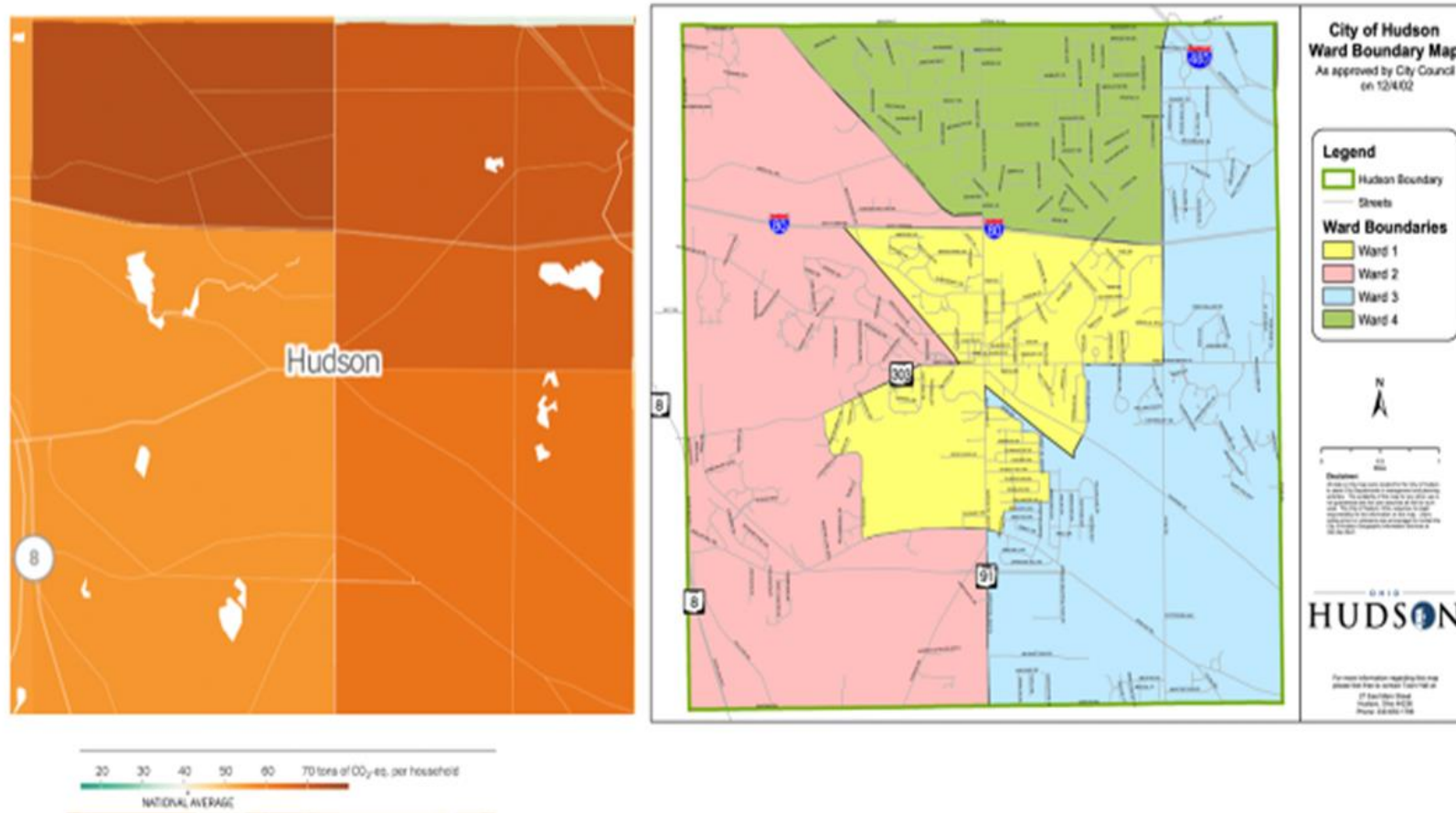
(This is our best guess for where you might be reading this article.) You can also look up another location using the search box below or zoom and drag to explore the map.

Cleveland metro area



Source: The Climate Impact of Your Neighborhood, Mapped By Nadja Popovich, Mira Rojanasakul and Brad Plumer Dec. 13, 2022
<https://www.nytimes.com/interactive/2022/12/13/climate/climate-footprint-map-neighborhood.html>

Hudson residential carbon dioxide emissions and ward map



Consumption-based emissions include:

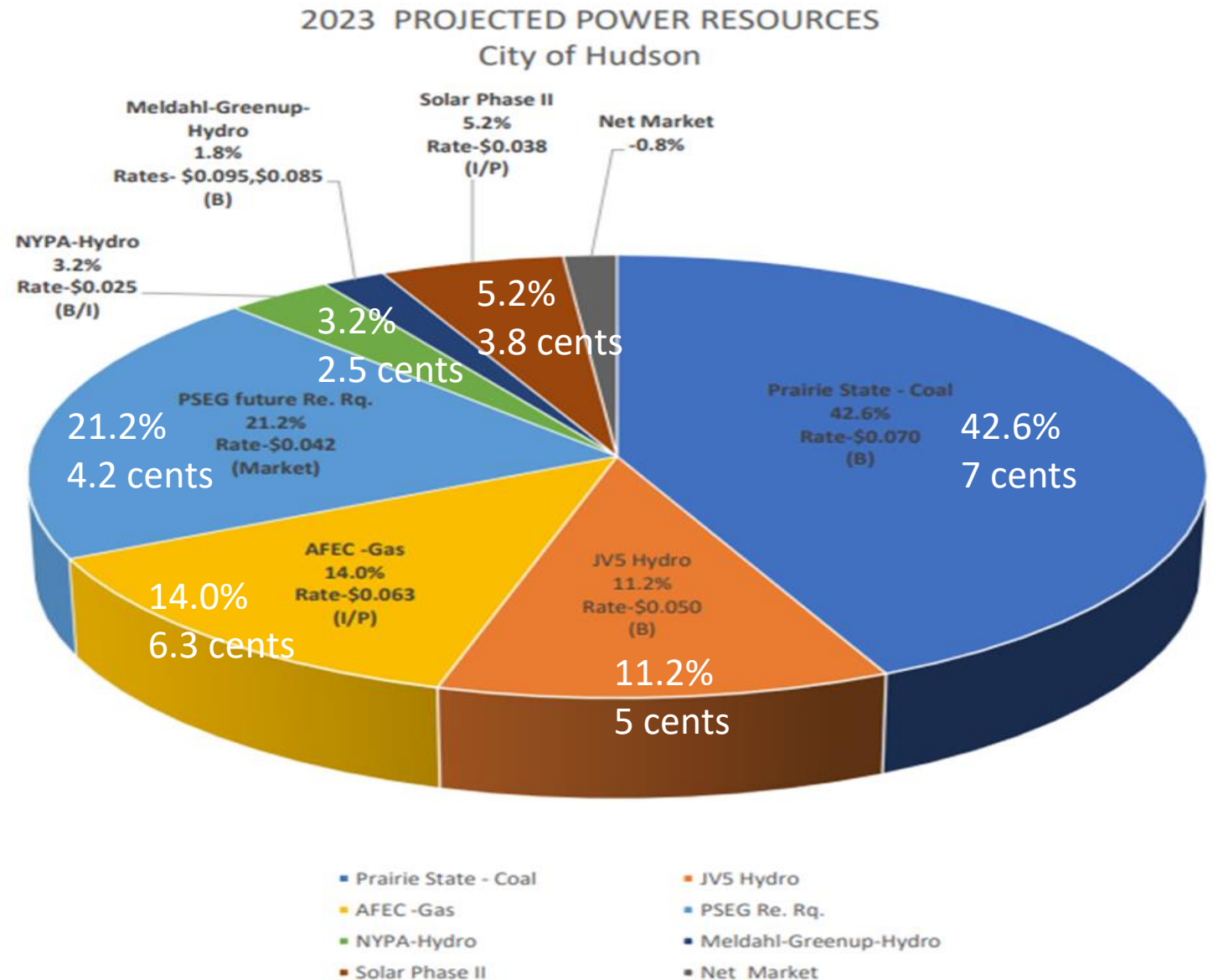
Transportation
Housing
Services
Food
Goods

The Health Policy Institute of Ohio: “A closer look at outdoor air pollution and health.”

Outdoor air quality is included in HPIO's Health Value Dashboard™, where **Ohio ranked 46th**, meaning that most other states have cleaner outdoor air.

Clean air and water, safe places to walk outside and access to healthy food are examples of conditions in the physical environment that affect the health and well-being of Ohioans.

2023 PROJECTED POWER RESOURCES City of Hudson Hudson Public Power Source, Cost Per KWH



Examples of current City of HUDSON sustainability

**Environmental
Awareness Committee**

**Permits solar
technology
installations and
large solar inverters**

**Maintains 41.4%
urban tree canopy
(Sterling Tree City USA
for 37 years.)**

**Created Barlow Comm.
Ctr. Solar Training
Facility for fire
departments, electric
power employees and
citizen education**

**Fosters recycling,
including electronic
waste**

**Recycles and uses
recycled asphalt to
lower Green House
Gas emissions**

Current City of Hudson Sustainability Solutions



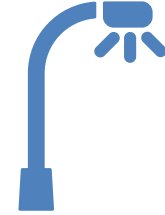
Bike and Hike trails develop connectivity and encourage efficient transportation



Maintains ~2000 acres of Parkland, open space, conservation areas that offset GHG emissions



Hudson's stormwater management, riparian and wetland protection standards and open space requirements are effective sustainability tools, if enforced



Citywide LED lights in public facilities, streetlights and City holiday lighting displays save energy

Discussion



But let's look at what impacts you are experiencing



Let's look at what we know we can do as a community

Group

Reports:

**Two Sentences or
phrases per group**

Let's find common
themes

Let's find common
solution ideas



**Putting Our Ideas into a
Plan:**

**A Peek into What
We Can Do**

What is a Climate Action Plan?

A climate action plan is a framework for measuring, planning, and reducing greenhouse gas (GHG) emissions and related climatic impacts, health and sustainability and long-term cost savings.

A greenhouse gas inventory is the first step in a Climate Action Plan.

The goal of a CAP is carbon neutrality.

The Big Question:

Do we want Hudson to be a climate smart city?

Neighboring Ohio cities' efforts: Commitments to addressing climate change

- Kent
- Mentor
- Oberlin
- Lakewood
- Cleveland/Cuyahoga county
- Shaker Heights
- Columbus

Needs Previously Identified

New risk management strategies for Hudson and the region

Update evacuation routes and other safety protocols, identify heat/cold emergency shelters

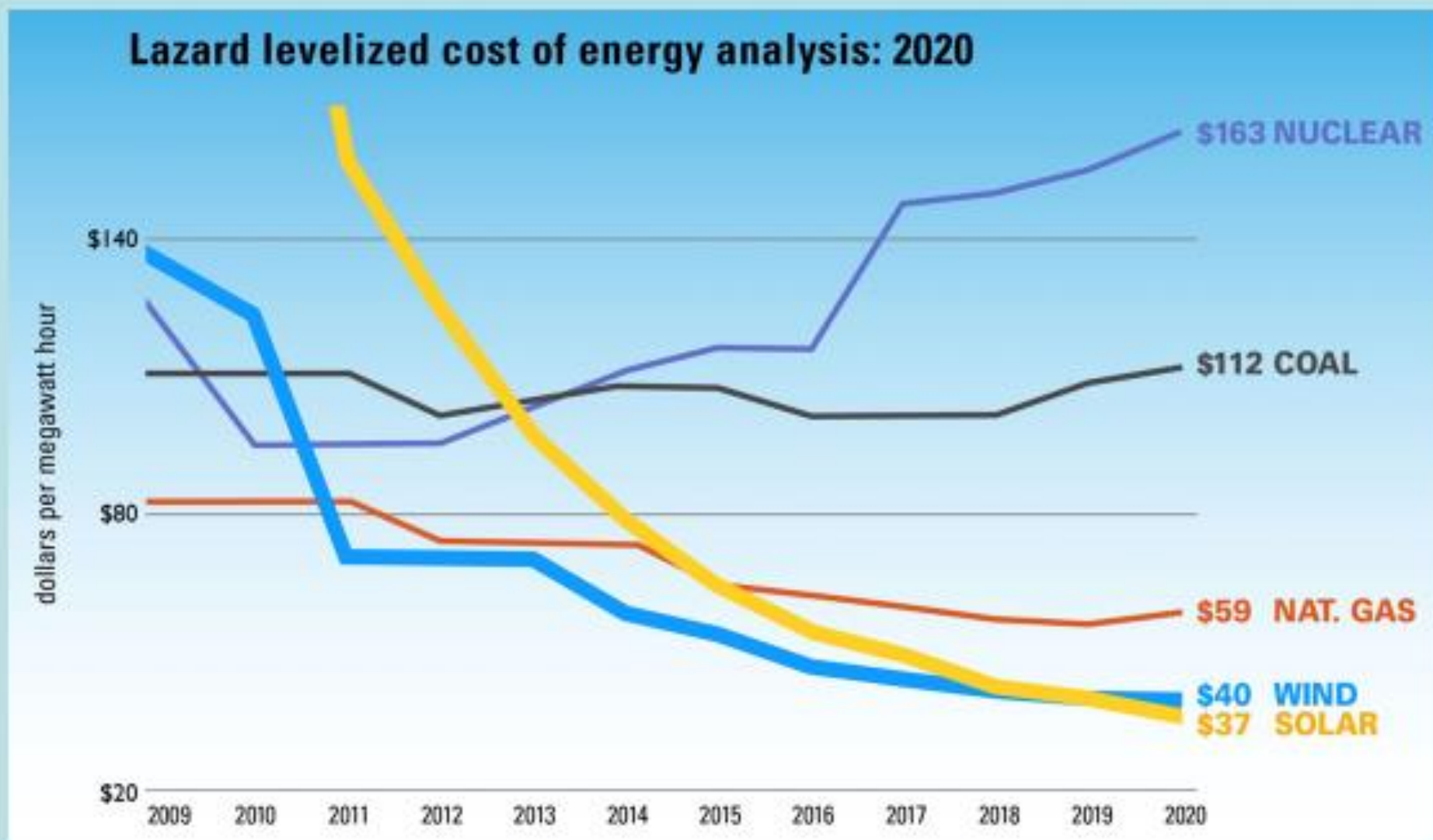
Recognize new vector borne diseases in our area (e.g., Dengue fever, more tick-borne diseases)

Increased air pollution leads to more allergies, asthma and other respiratory diseases

Stronger enforcement of current climate-related policies, fewer variances

Focus on long-term consequences rather than short-term gains

Renewable energy is now the cheapest form of electricity



Opportunities available due to Inflation Reduction Act

\$150 for home energy audits

\$250 for an exterior door (\$500
total for all exterior doors)

\$600 for exterior windows and
skylights; central air conditioners;
electric panels, natural gas, propane,
or oil water heaters, furnaces and hot
water boilers

\$2,000 for electric or natural gas
heat pump water heaters, electric
or natural gas heat pumps, and
biomass stoves and boilers.

<https://www.whitehouse.gov/cleanenergy/>

Air-sourced (reversible) heat pumps

- Electric heat pumps pull heat from the environment to heat or cool using compressors; Don't burn fuel
- Can operate in cold climates like Ohio
- COP - Coefficient of Performance (efficiency) up to 400%
- SEER- Seasonal Energy Efficiency Rating
- HSPF- Heating Seasonal Performance Ratio



Source: <https://www.energy.gov/energysaver/heat-pump-systems>

Heat pumps at Hudson City Hall Photo: J. Ortiz

TABLE 1. LIFETIME SAVINGS FOR EFFICIENT RESIDENTIAL AIR-SOURCE HEAT PUMP MODELS

Performance	Best Available	ENERGY STAR	Less Efficient
SEER/HSPF	33.1/14.0	15.0/8.5	14.0/8.2
Annual Energy Use-Heating and Cooling (kWh)	5,123 kWh	9,289 kWh	9,746 kWh
Annual Energy Cost-Heating and Cooling (\$)	\$449	\$814	\$854
Lifetime Energy Cost (15 years)	\$5,338	\$9,680	\$10,157
Lifetime Cost Savings	\$4,818	\$476	=====

Table source: <https://www.energy.gov/eere/femp/purchasing-energy-efficient-residential-air-source-heat-pumps>

Use electric lawn equipment!

Cost comparison

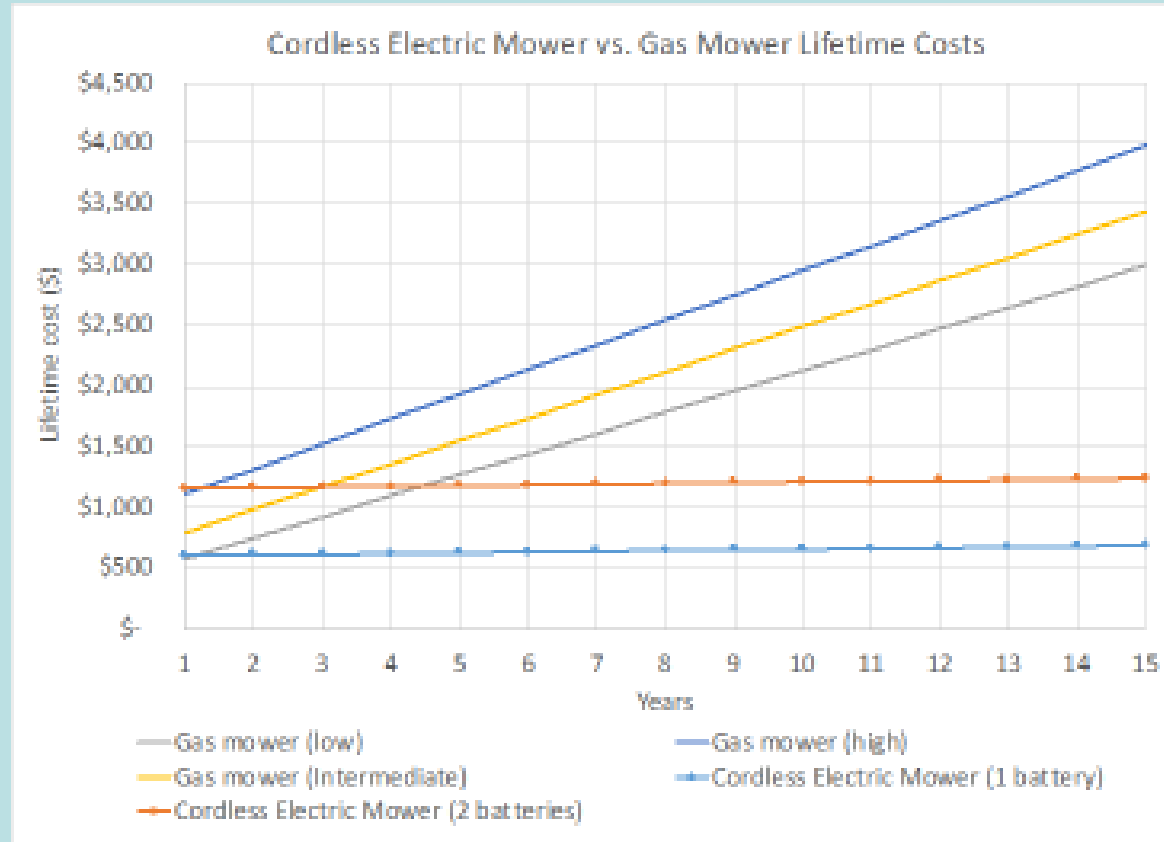
- Mower break even: 1-5 years

ICE Mower (\$400-900)

- Annual tune ups: \$24-\$56
- Fuel for 25 cuts: \$148.44 @ \$4.75/gallon

Electric Mower

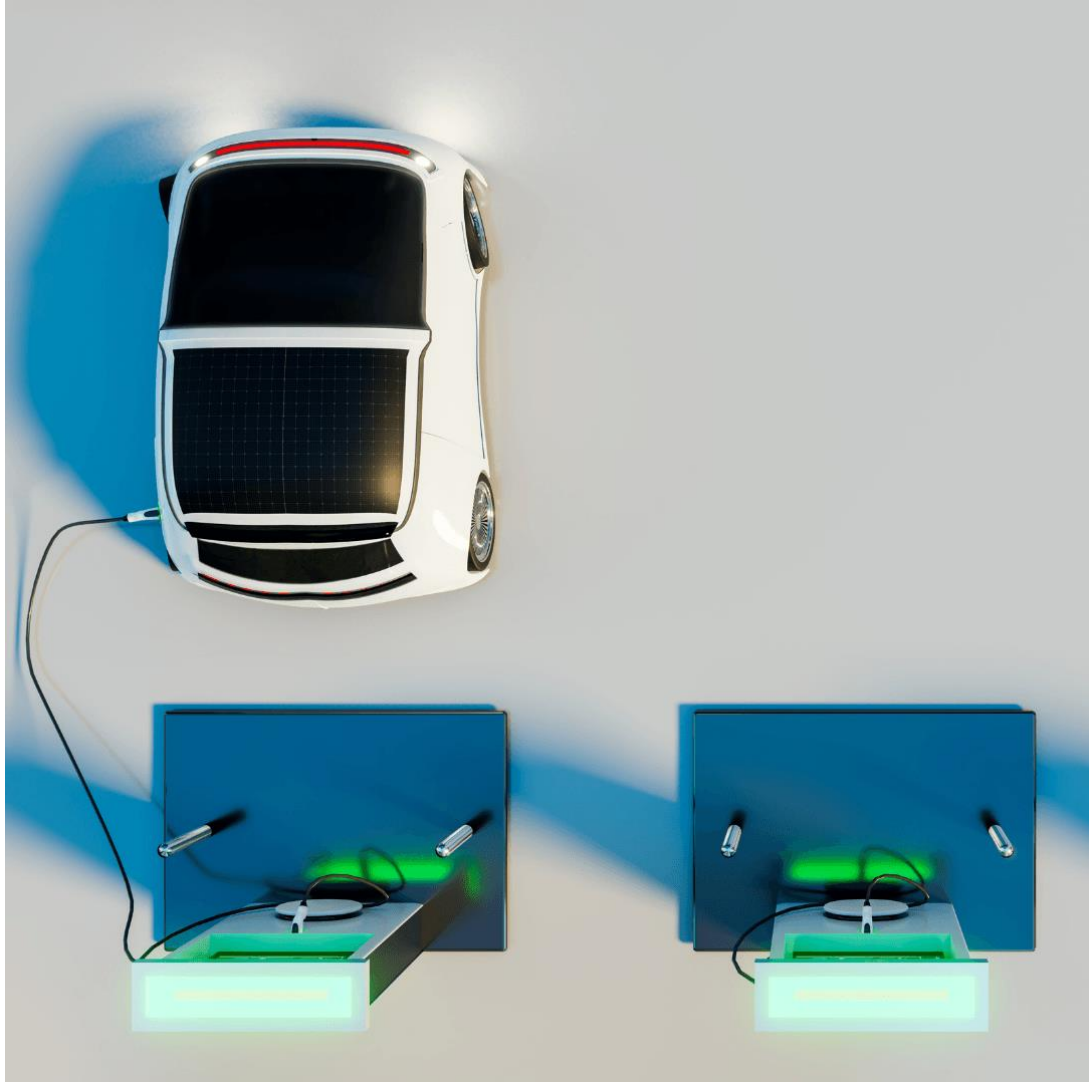
- One battery: \$599
- Two batteries: \$1148
- Electricity per cut 12 to 24 cents @ 12 cents/kWh
- Electricity for 25 cuts: \$6





Residential Clean Energy Credit

30% of the cost to install qualifying systems that use solar, wind, geothermal, biomass or fuel cell power to produce electricity, heat water, or regulate the temperature of a home, through 2032



Alternative Fuel Refueling Property Credit

30% of the costs of “qualified alternative vehicle refueling property” installed in the home, up to \$1,000, through 2032.

**NOW is a
good time to
take
community-
based
actions!**

- **Funding is available
for renewable
energy in schools**
- **Funding is available
for electric school
buses**
- **Millions of dollars of
funding are
available for
sustainability
initiatives in schools
from conservation to
renewable energy**
- **Infrastructure and
Investment Jobs Act
provides \$2.5B to
electrify school
buses**

Timing is everything

- Acting on climate and accelerating energy transition will make life better – and be cheaper than the alternative.
- Many of the tools we need for rapid emissions cuts – from better use of land resources to improving demand and efficiency to effective electric vehicles – are in our hands today.



Where Do We Go?

-
- **Plan as a Community. We can create a doable action plan.**
 - **We can make a commitment to one another to see this process through.**
 - **Join us in specifically looking at what others have done.**
 - **Join us in putting together a Climate Action Plan for Hudson.**

LWV Hudson Commits to Facilitate



Position In Brief:

LWVUS is calling for prompt action to cut this country's GHG emissions, invest in a clean energy economy, and help the world's poorest countries tackle the challenges of climate change.

LWV Hudson adopted in 2022 the LWV Hudson Climate Action and Sustainability Planning Process that is consistent with the best available climate science and that will ensure a stable climate system for future generations.

What can we do?

- Conservation efforts
 - Weatherstripping
 - LED lighting
 - Insulation
 - Upgrade windows/doors
- Replace aging AC units with heat pumps
- Install heat pump water heaters
- Switch to EVs
- Replace gas or electric stoves with induction
- Install metered Level 2 and DC fast chargers for EVs
- Switch to electric grounds equipment
- Install Wind, Solar PV or PVT generation

All are eligible for tax credits

Actions to Take

Place

Tonight's Vulnerability Assessment: Place your sticky notes with comments on your index card. Leave the card in the designated box near the map of Hudson where you are aware of climate change-related issues

Later: Pay attention to what's happening in your backyard and neighborhood.

Attend

Attend the next meetings:

March 16 – Learn about Climate Action Plans from Cities who have done this

Late April/Early May – Let's take what you have identified so far and Let's Get Started on Our Plan

Observe/ Attend/ Engage

Observe/Attend City Council and EAC Meetings, Planning and Zoning Board.

Monitor progress on the comprehensive plan

Find ways you can start a plan for yourself

Commit to becoming part of the process of Hudson's Climate Action Plan

* Before you leave tonight, please take your post-it stickies already on your card along with the rest over to where the maps are located.

We'd like you to put the ones that are specifically locational near the location of concern on the maps. Members of our excellent City of Hudson staff, who are very knowledgeable about what is on the maps can assist you with locating places and with answering questions about the information on the maps.

* If you have issues/questions/ideas that are less location specific, please leave those stickies on the 4x6 card and put the card in the basket containers provided near the maps or at the door when you leave.

* We will compile the results and report back to you by e-mail so we can learn what people's concerns are and incorporate them in the Climate Action Vulnerability Assessment of Hudson.

*Last comment before they move out: Thank all of the participants for their time and talent tonight. We hope to see you again in March. Please invite your friends and neighbors.