Geothermal Tax Credit Signed by Governor Hochul as Budget is Adopted – New York residential customers are now eligible for a 25% tax credit up to $5,000 on the installation of geothermal systems. Here are a couple quotes from Dandelion Energy’s press release celebrating the tax credit. “The geothermal tax credit bill was sponsored by Senator Tim Kennedy and Assembly Member Jon Rivera, and co-sponsored by 47 of their colleagues. Supporters from throughout the state made phone calls, sent emails, and testified at hearings to win this victory for New Yorkers seeking to free themselves from fossil fuels and crippling energy bills.

Doreen M. Harris, President and CEO, NYSERDA said, 'Under Governor Hochul, New York is committed to pursuing ambitious and urgently-needed climate and building decarbonization priorities, and has set a nation-leading goal of two million electrified and efficient homes statewide by 2030. These new tax incentives approved in this year's budget make geothermal more affordable, helping New Yorkers to heat and cool their homes without burning fossil fuel.'"

Senate and Assembly Lead Sponsors of the Geothermal Tax Credit Bill:
Ongoing and IMPORTANT - Your Feedback is Welcome on NY’s Climate Action Council Scoping Plan – We don’t usually run the same article twice in Just In! but we’re running this one for a 3rd time – that’s how important your input is on NY’s plan which is under attack by fossil fuel interests who object to the provision banning fossil fuels in new construction. From Jen Metzger, former NY State Senator and New Yorkers for Clean Power Senior Policy Advisor - The public comment period opened on January 1, and has been extended through June 10, 2022. You can submit written comments through the portal on the Climate Action Council website, or email them to scopingplan@nyserda.ny.gov. Share your comments with your State legislators, as a number of Scoping Plan recommendations will require legislation. It is also important to attend and speak at one of the scheduled public hearings, and you can pre-register and find the addresses of the hearings here: https://climate.ny.gov/CAC-Meetings-and-Materials. So far, the following hearings have been scheduled:

**In-Person Hearings (4 pm - 7 pm)**

April 5  Bronx  April 26  Syracuse  
April 6  Brookhaven  April 27  Buffalo  
April 12  Binghamton  May 3  Brooklyn  
April 14  Albany  May 10  Tupper Lake

**Virtual Hearings**

May 7 (10 am) & May 11 (4 pm)

Make your voice heard! The Scoping Plan must be finalized by the Climate Action Council and delivered to the Governor and Legislature by December 31, 2022. Let’s make sure this Plan delivers on New York’s climate goals.

*Prepared by Jen Metzger, NYCP Senior Policy Advisor & former State Senator*

*Questions? info@nyforcleanpower.com*

**Other Resources on Testifying on the Climate Action Council Scoping Plan –**

- [Sierra Club Guide](#) on Testifying at Climate Action Council Scoping Plan
- [Public Comment Guide](#) on New York’s Draft Climate Plan: Eliminating Emissions from Buildings by Jen Metzger, New Yorkers for Clean Power
- [DEC Draft Scoping Plan Overview](#)
- [NY Renews Testimony 101 Guide](#)
A Geothermal Planned Community Deep in the Heart of Texas – The 200 houses in Whisper Valley, a development in Austin, Texas, are all equipped with geothermal heat pumps and their own solar panels. The homes have a shared GeoGrid that supplements the heating and cooling capacity of the individual homes. The system was designed by EcoSmart Solutions, and it held up beautifully through the infamous 2021 deep freeze that overtook Texas. Thanks to NY-GEO member Michael Helme for this tip to a FreeThink.com article which includes a nice 4 minute video on geothermal using Whisper Valley as an example.

Home water heaters: A new ally in making grids cleaner - Smart water heaters can soak up clean power, then turn off when the grid is stressed. A new California utility pilot will test the concept at scale. Jeff St. John – Canary Media – "Water heaters are a potentially massive resource when it comes to balancing the ups and downs of grids that are increasingly powered by renewables…Pacific Gas & Electric…California’s biggest utility intends to sign up between 5,000 and 9,000 customers to install or retrofit electric water heaters that can heat water with electricity when it’s clean and plentiful, and then store that hot water for later so they don’t have to fire up when grid power is scarce or dirtier. Full article here.
NYISO Gold Book on Winter Peak - The 2022 Draft Gold Book is out. This document presents the projections of the New York Independent System Operator (NYISO), the body that runs the State’s electric grid. This document, with its calculations for electric load and capacity, is one of the most important tools used in planning the electric capacity that will be needed as we electrify the heating and transportation sectors to meet climate goals. NYISO projects that winter peak demand attributable to Building Electrification will increase from 329 MW in 2022 to 25,004 MW in 2050. Geothermal heating, with the consistent temperature of the ground as its heat source, will be the most important instrument New York has at its disposal to minimize the increase in winter peak electricity demand. Peak demand is the strongest driver of utility bill increases. Thanks to NY-GEO member Bob Wyman for this tip.

**Figure I-3: NYCA Winter Peak Forecasts – Coincident Peak, MW**

![Graph showing NYCA Winter Peak Forecasts](image-url)
Two Clean Energy Projects Approved by State’s Public Service Commission – By Juan Manuel Benitez – Spectrum News – NY 1 – “Green energy from upstate and Canada: those are two sources New York City will soon be tapping into to produce its electricity. The Public Service Commission finally gave the go-ahead to two big projects. The first one is called Clean Path, which will bring solar and wind power from upstate through a 175-mile underground transmission line. The second one — the Champlain Hudson Power Express, also a transmission line — would bring hydropower from Canada. ‘New York City government is going to enter long-term contracts to purchase 100% of the city’s electricity needs, the city government’s electricity needs from these projects,’ said Rohit Aggarwala, New York City Chief Climate Officer and Commissioner of Environmental Protection. ‘As a result, every school, every police precinct, every city office building, our wastewater treatment plants, wherever they need electricity, after these projects are in service in a couple of years, it will be a 100% renewable power.’” Article by Lissa Harris in the River on environmental and climate groups’ reaction to these decisions Climate World Fractures Over an Extension Cord to Canada here
Wind! - Maria Virginia Olano – Canary Media – “Twenty countries generated more than 10 percent of their electricity from wind in 2021, according to Ember’s 2022 Global Electricity Review. Denmark is at the top of the list, with a staggering 47.8 percent of its grid powered by wind energy. Full article here.

Countries generating more than 10% of electricity from wind

- Denmark: 47.8%
- Uruguay: 43.0%
- Ireland: 32.7%
- Portugal: 27.0%
- Luxembourg: 25.4%
- Spain: 23.2%
- United Kingdom: 21.1%
- Germany: 19.9%
- Greece: 19.8%
- Kenya: 16.0%
- Sweden: 16.0%
- Nicaragua: 15.2%
- Netherlands: 14.8%
- Croatia: 13.9%
- Belgium: 12.7%
- Costa Rica: 12.4%
- Morocco: 12.4%
- Finland: 11.4%
- Brazil: 11.3%
- Romania: 11.1%

Based on 2021 data as available; otherwise based on 2020 data.

Chart: Canary Media • Source: Ember’s Global Electricity Review 2022 • Embed • Download image
Solar! - Maria Virginia Olano – Canary Media - Solar energy generation around the world grew by 23 percent last year, according to Ember's 2022 Global Electricity Review. Six countries generated more than 10 percent of their electricity from solar in 2021, and several others are getting close to that level. Full article here.

The 10 countries getting the biggest share of power from solar

<table>
<thead>
<tr>
<th>Country</th>
<th>Share</th>
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<tbody>
<tr>
<td>Luxembourg</td>
<td>17.9%</td>
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<tr>
<td>Yemen</td>
<td>14.5%</td>
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<td>Chile</td>
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<td>Australia</td>
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<td>Jordan</td>
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<td>Honduras</td>
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<td>Vietnam</td>
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<td>El Salvador</td>
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<td>Spain</td>
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<td>Netherlands</td>
<td>9.5%</td>
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</tbody>
</table>

Based on 2021 data as available; otherwise based on 2020 data.

Chart: Canary Media - Source: Ember's Global Electricity Review 2022 - Embed - Download image

Hydrogen??? Where It Fit In the Future Energy Picture? Or does It?- Can hydrogen replace natural gas for space heating? Why has the Department of Energy allocated so much funding to hydrogen? Will hydrogen be a competitor to geothermal heating? Is it safe? Will it be affordable? These questions and more are answered on “Assessing the Viability of Hydrogen Proposals”, a 58 minute video from the non-profit Energy Innovations.
“The Global Sprint Away from Fossil Fuels • With his barbaric war on Ukraine, Vladimir Putin has set in motion every outcome he dreaded, including shaking up global energy markets. Now, energy security is at the forefront of the minds of national and regional policymakers, investors, businesses, and consumers alike. Now is a time to act. [CleanTechnica] ” (from 2022 04 12 Green Energy News)

From the article: “In 2019, the EU is responsible for 9 percent of global fossil fuel demand and none of the growth. EU fossil fuel demand peaked in 2006, and has since fallen by 27 percent. However, Europe depends on fossil fuel imports for 60 percent of its total energy.”
Tesla Model 3 And Model Y Score About 100,000 US Sales In First Quarter Of 2022 • Based on well informed estimates of US Tesla sales, the Tesla Model Y and Tesla Model 3 dominated sales of electric cars in the US in the first quarter of 2022, just as in previous quarters. The Tesla Model S and Model X took the third and fourth spots in the ranking. [CleanTechnica]” (from 2022 04 12 Green Energy News)

US Electric Vehicle Sales (Q1 2022)

New York Enacts First-In-Nation Plan to Electrify All State School Buses • An agreement reached on New York’s annual state budget builds on Governor Kathy Hochul’s State of the State and Executive Budget proposals. It aims for all new school bus purchases to be zero emission by 2027 and all buses in operation are electric by 2035. [CleanTechnica]” (from 2022 04 13 Green Energy News)
Contractor’s Corner:

Tax Credit Started January 1st – Contractors should know that the 25% tax credit on residential projects applies to projects placed in service since the beginning of this year. From section ff (8) of the bill:

(8) When credit allowed. The credit provided for herein shall be allowed with respect to the taxable year in which the geothermal energy system equipment is placed in service and shall be allowed only for geothermal energy system equipment placed into service after January first, two thousand twenty-two. However, the taxpayer shall be allowed a credit for only one such system in any taxable year.

Governor: Budget Supports Geothermal Heating & Cooling in Schools – From Governor Hochul’s Budget Message - “…The Clean Green Schools initiative provided in the "Clean Water, Clean Air and Green Jobs Environmental Bond Act" will serve more than 1,000 public schools and benefit nearly 1 million students. The program will drive significant infrastructure upgrades, such as geothermal heating and cooling, solar, green roofs, and indoor air quality/ventilation. This vital investment will not only boost the state’s economy but advance climate justice by bringing clean energy and a healthier indoor environment to under-resourced public schools.” The message then moves to the Climate Friendly Homes bullet point – “As part of the Governor’s commitment to support the development of at least 1 million electrified homes and up to 1 million electrification-ready homes by 2030, the Enacted Budget provides funding for a $25 billion, five-year Capital Housing Plan that will create and preserve 100,000 affordable homes and electrify an additional 50,000 homes.” Full CLEAN ENERGY INFRASTRUCTURE, CLIMATE RESILIENCE AND PRESERVATION message

NYSERDA Buildings of Excellence Competition - aims to accelerate the design, development, construction, and operation of very low or zero carbon emitting buildings. The Early Design Support Request for Proposals (RFP 3928 Rd3-D) will identify and partner with selected professionals that demonstrate the greatest potential for success and replication in the market. Through this RFP, selected design firms are eligible to receive up to $250,000 in direct funding per project, as well as support for initiatives focused on broad marketing and public awareness. Click here for details.
Doe Technology Reviews - In recent weeks, the DOE has published a number of Notices of Proposed Rulemaking and Requests for Comment on technologies that are of interest to NY-GEO members. Webinars are generally held to provide an opportunity to learn about these. Thanks to NY-GEO member Bob Wyman for providing these links:

- **Standards for Room Air Conditioners, Webinar, May 3**, Comments due June 6
- **Standards for Air-Cooled Three-Phase, Small Commercial Package Air Conditioning and Heating Equipment and Air-Cooled, Three-Phase, Variable Refrigerant Flow Air Conditioners and Heat Pumps, Webinar, May 16**, Comments due May 31
- **Standards for Consumer Pool Heaters, Webinar, May 4**
- **Standards for Room Air Conditioners, Webinar, May 3**
- **Test Procedures for Central Air Conditioners and Heat Pumps, Webinar, April 18**, Comments due: May 23
- **Standards for Variable Refrigerant Flow Multi-Split Air Conditioners and Heat Pumps**, Comments due: May 2

Wetchester Geopossibilities Tool – “Sustainable Westchester is continuously working to make clean energy more approachable and accessible for properties in Westchester. Our partner, NYSERDA, offers a free, online tool – “Westchester GeoPossibilities,” [geopossibilities.ny.gov](http://geopossibilities.ny.gov) in an effort to expand clean energy. This online resource enables Westchester County property owners to easily assess the feasibility of geothermal heating and cooling for any building or property in the county. The user-friendly tool provides knowledge for this gas-constrained area by providing information and assistance on energy efficiency and clean heating solutions that reduce carbon emissions.”
Climate Updates:

US House Climate Committee Delves into Pipeline Policy, Gas Bans, China and Putin - Robert Walton – Utility Dive “Democrats are considering a slimmed-down version of the Build Back Better reconciliation package, which they previously failed to advance in the Senate. An energy-focused version could include efficiency tax credits and the bipartisan Hope for Homes Act, which would provide training for energy-saving retrofits for home builders and contractors. But the hearing ultimately shifted away from efficiency and towards global events, domestic gas policy and how to manage international foes like Russia and China.”

Alliance to Save Energy President Paula Glover Testified at the hearing.
Climate Change Stress Relief at the University at Buffalo – from UB Sustainability News - “Solid mental health is foundational to the sustainability of the soul. The world we live in makes it difficult to not feel anxious or depressed. The eco-anxiety caused by climate change can be alleviated through meditation and restorative practices. Health Promotion has infused sustainability themes at their weekly Meditations Groups on Fridays throughout April.” On Fridays at 3:00 PM, click here for the zoom link.
Inter Faith Power & Light “Flood the Phones, Not the Planet” - *National call-in days of action run from April 1-25* “We are phoning U.S. Senators and urging them to ACT NOW on climate change by investing in jobs, environmental justice, and climate action. [Make a call to your Senators today!](#)

In 2021, the U.S. House of Representatives passed a historic bill with more than $550 billion in investment for clean energy, transportation, clean air and water, plus critical assistance for children and families. But the legislation remains stalled in the Senate. “

![Flood the Phones, Not the Planet](image)

**April 1–25**

Call the Senate to tell senators: 
climate can’t wait, we need action now!

1–877–215–0983

“COP26 Promises Will Hold Warming Under 2°C • The carbon-cutting promises made at COP26 would see the world warm by just under 2°C by the end of this century, according to an analysis. The study finds that if all the pledges that countries made are implemented “in full and on time,” temperatures would rise by 1.9° to 2°C. [BBC](https://www.bbc.com) ” (from 2022 04 14 Green Energy News)

**Frequent Sources for Just In!:**

- Green Energy Times
- City & State First Read
- POLITICO Weekly NY & NJ Energy email)
- Bill McKibben’s weekly New Yorker *Climate Crisis Column*
- Canary Media
- National Building Electrification Network & *Sunstone Strategies*
- The Guardian