Please be sure to check out the Events and Career Opportunities section below and here on our website. Several interesting new webinars coming up!

Con Edison Seeks More Funds for Heat Pump Incentives – On February 24th Con Edison filed a request with the Public Service Commission “to support clean heat market growth through transfer of unspent and previously authorized funding…the total request for potential transfer to the Clean Heat Program is $418 million. The Company expects to transfer a total of up to $348 million to the Clean Heat Program in 2022 and up to an additional $70 million in 2023, if necessary… to remain consistent with Commission policy that the Clean Heat program be designed to ‘provide a clear and stable market signal,’ any short-term market disruption, such as an interruption of the Clean Heat program due to lack of funding, must be avoided during the market’s growth…As of January 31, 2022, Con Edison’s Clean Heat Program had achieved 97 percent (965,700 MMBtu) of its cumulative NENY MMBTU savings target, electrifying approximately 3,000 homes in 2020, and just under 10,000 in 2021.” Click here for the request filing.

**Figure 1: Con Edison’s Clean Heat Program Achievement and Spending by Year**
NY-GEO 2022 Early Bird Discount Extended – NY-GEO 2022 will be held April 27th and 28th in Albany. The program schedule was released last week and registration for exhibitors has been reopened as exhibit space has been expanded. The early bird discount (15% or ~ $50 on a full conference registration) has been extended to midnight, March 8th. Click here for the conference website.
DOE Sees New York Leading on Geothermal Installations – In 2019 The US Department of Energy released its Geo Vision report, looking at the potential of geothermal energy in its many forms. The report includes a look at geothermal heat pumps and projects a growth from a current 2 million homes employing geothermal heating and cooling in the US to a projected 28 million by 2050, serving close to 25% of the entire U.S. heating and cooling market. It also cites the potential for 17,500 geothermal district heating installations, and as the chart below shows, DOE is projecting the highest penetration of geothermal heat pump systems in New York State. On February 17th the Geothermal Technology Office (GTO) within DOE released its 2022-26 Multi-Year Program Plan (MYPP), a high-level strategy and five-year roadmap to “Operationalize Geothermal Energy’s Key Role in Reaching U.S. Clean Energy Goals.” Thanks to JR Rath, NY-GEO’s Director of Operations for this tip.

Figure 4-6. Economic potential for geothermal heat-pump systems by state in 2050 under the Business-as-Usual (left) and Breakthrough (right) scenarios, with the top 10 states listed separately

Capital Region Scholarships for NY-GEO 2022 !!- Heat Smart Capital Region Campaign is offering 15 scholarships to NY GEO 2022 – the two day conference in Albany on April 27th and 28th. Students, and people who are interested in getting into the ground source heat pump industry, are invited to apply. You must live in the 8-county region that we serve. Click here for the application link.
“Why Ireland Is the Worst Country in The EU at Using Renewables to Make Heat Energy • Only 6% of the energy required for heating and cooling in Ireland came from renewable sources in 2020 – the lowest proportion of any EU country. For the EU as a whole, 23.1% of the energy used for heating and cooling in 2020 was renewable. [TheJournal.ie] ” (from 2022 02 12 Green Energy News

![Graph showing renewable energy used for heating and cooling in EU countries]

Source: Eurostat

“Renewable Energy: Zero Blackouts, Millions Of New Jobs: Mark Z Jacobson • Mark Z Jacobson and his team recently published an updated study building on prior research to show switching to 100% renewable energy would virtually eliminate the electrical grid blackouts that have plagued many areas of the country in recent years. [CleanTechnica] ” (from 2022 02 22 Green Energy News)
**NY Wind Energy Auction Results** - Marie French from POLITICO Weekly NY & NJ Energy tweeted the graphic below with this text – “Wild nearly $4.4 billion auction for offshore wind leases. Here are the winners. And my trusty spreadsheet with final bids and per acre/per MW figures. Pretty surprising.”

<table>
<thead>
<tr>
<th>Lease area</th>
<th>Acres</th>
<th>Bid</th>
<th>Per acre</th>
<th>Installation per MW</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>537</td>
<td>71522</td>
<td>$765,000,000.00</td>
<td>$10,696.01</td>
<td>868 $</td>
<td>$881,336.41 between both NY/NJ, farther offshore</td>
</tr>
<tr>
<td>538</td>
<td>79438</td>
<td>$795,000,000.00</td>
<td>$10,007.80</td>
<td>964 $</td>
<td>$824,688.80 between both, farther south than 537</td>
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<tr>
<td>539</td>
<td>114277</td>
<td>$1,100,000,000.00</td>
<td>$9,625.73</td>
<td>1387 $</td>
<td>$793,078.59 farther south than 538</td>
</tr>
<tr>
<td>541</td>
<td>76139</td>
<td>$780,000,000.00</td>
<td>$10,244.42</td>
<td>924 $</td>
<td>$844,155.84 farthest south, close to NJ</td>
</tr>
<tr>
<td>542</td>
<td>76894</td>
<td>$645,000,000.00</td>
<td>$8,388.17</td>
<td>934 $</td>
<td>$690,578.16 behind 541, farther offshore</td>
</tr>
<tr>
<td>544</td>
<td>43056</td>
<td>$285,000,000.00</td>
<td>$6,619.29</td>
<td>523 $</td>
<td>$544,933.08 closest to NY</td>
</tr>
</tbody>
</table>
Virtual Peaker: Working to Convert Home Devices into Grid Assets - The scrappy Kentucky-based startup has landed $16.6M and a slew of big contracts – Jeff St. John – Canary Media - Bill Burke, CEO of Virtual Peaker, has spent the past 15 years figuring out how to turn everyday household devices like thermostats and water heaters — and less-everyday devices like batteries and electric vehicles — into the building blocks of a flexible and responsive electric grid...Virtual Peaker, the company Burke launched in 2015, took this experience and packaged it in a cloud-based software platform that’s being used by more than a dozen U.S. utilities to connect to, communicate with and provide real-time control over a wide range of household devices...(including) smart water heaters from Rheem, Aquanta, Apricity and e-Radio Full article here.
Report: Gas Declining for Power Generation - Long-term decline will be driven by soaring renewable energy and battery installations - “...renewable generation is expected to grow so fast this year and next that it will cut into the market for both coal- and gas-fired power. High gas prices have also prompted utilities to lower use. In 2021, the two fossil fuels generated just over 59% of electric-sector output; in 2023, the Energy Information Administration (EIA) expects the figure to fall below 56%. Meanwhile, renewable output is expected to rise from almost 19% to about 23%.” Thanks to JR Rath, NY-GEO Director of Operations for this tip. IEEFA U.S.: Power sector gas consumption has likely hit its peak.

Deep Geothermal for Electricity Generation - By Adele Peters - 2 minute Read – “Iceland was one of the first countries to move to 100% renewable electricity, in part because it was able to tap into geothermal energy from its unique volcano-filled geology. In many other places, that energy isn’t as readily available. But a new technology could make geothermal power accessible anywhere—and this company is aiming for one specific use case: putting the geothermal wells at power plants that currently run on fossil fuels... Using a new technology that employs energy waves to melt rock, the wells can do deeper than standard geothermal, potentially making the renewable energy work anywhere on earth.” Thanks to NY-GEO member Dan Silvestri for this tip. Full article here.
“Why The Future Of Long-Haul Trucking Is Battery Electric • There is increasing consensus among European truck makers and industry stakeholders that battery electric trucks will play a dominant role in the decarbonization of road freight. Low fuel and maintenance costs make battery EVs very competitive for long-haul transport. [CleanTechnica]” (from 2022 02 18 Green Energy News)
Hydrogen Hubs – by Jeff St. John, Canary Media - “‘We use over 10 million metric tons of hydrogen a year in this country for things like petroleum refining and ammonia production,’ Jigar Shah, head of the Department of Energy’s Loan Programs Office, said in an interview. Almost all of that hydrogen is made via methane steam reforming, which uses steam and pressure to break the bond between carbon and hydrogen in fossil gas — a process that emits significant amounts of carbon. ‘That hydrogen has to be decarbonized,’” he said. (Editor’s note – with so many current uses of hydrogen facing an expensive road to decarbonization, as documented in this article, it would be foolish to expend valuable renewable electricity on producing more hydrogen to fuel the heating sector. Better to use the renewable electricity directly to power heat pumps. We’re including this article because we feel it is important for electrification stakeholders to be tracking hydrogen initiatives) Full article here

Contractor’s Corner:
NYSERDA Seeks Residential Services Providers- “By 2030 we must be on pace to upgrade more than 200,000 homes per year to all-electric and energy efficient. To accomplish this, we need to engage with a broad spectrum of market actors with expertise in the residential sector – spanning across single-family to multifamily, retrofits and new construction. NYSERDA as issued Request for Qualifications (RFQL) 4902 to establish a pool of contractors who have expertise in one or more areas of residential energy efficiency and clean energy. NYSERDA will conduct an Informational Webinar on March 10, 2022, at 2:00 p.m. ET during which NYSERDA will review the requirements of this solicitation and answer questions. Qualifications are reviewed in multiple rounds throughout the year. The next review dates is hursday, March 24, 2022. For Additional Details, and Associated Documents click here:
Decarbonization for NY’s Municipal Power Communities – NY State has ~50 municipal utilities and rural electric cooperatives that receive inexpensive hydropower through agreements NYPA. In many of these communities, electric resistance heating is common due to lower power costs. NYSERDA has put together a funding package (RFP 4592) to support the rapid decarbonization and increased resilience of these communities. NY-GEO members might want to explore/propose the installation of GSHPs in these areas as both a decarbonization strategy and improved business model for these smaller utilities. Proposers may submit to one or more of the following categories:

- Climate Impact Vulnerability Assessments & Resilience Planning (Up to $100k award),
- Renewables and Innovation Analytics / Pre-Feasibility / Feasibility Studies (Up to $200K award)
- Demonstrations of Net Zero / Deep Decarbonization Solutions. (Up to $500K award)

For Additional Details and Associated Documents click here.

Weekly Nugget from NY’s Climate Action Draft Scoping Plan: NY-GEO is running pertinent quotes from the Climate Action Council’s Scoping Plan weekly in Just In!

“Expand training: Training for incumbent and new clean energy workers and adjacent industries needs to be increased dramatically, through investments in training infrastructure/delivery, career pathways, on-the-job-training, and industry partnerships. The State should support expanded or new training in the following priority areas: (5 of the 9 areas listed in this section of the Scoping Plan are shown below)

- Training and resources for contractors, technicians, and designers on sizing, selection, and installation of heat pumps and supporting measures.
- Training and resources for contractors, technicians, and designers to reduce HFC emissions, addressing both leak reduction and proper disposal of HFCs already in use in building equipment and the transition to low-GWP alternatives for building equipment and spray foam insulation.
- Continuing education on building decarbonization as part of existing or new licensing and/or registration requirements for architects, engineers, trades, contractors, building operators, and real estate professionals, such as brokers and inspectors.
- Training and industry partnership to increase the number of qualified geothermal drillers.
- Training for workers in fossil fuel industries to transfer their skills to clean energy opportunities.

This week’s quote from page 140 of the Climate Action Council’s Draft Scoping Plan.
Climate Updates:

There are many reasons our customers prefer geothermal heat pumps – saving money, superior comfort, health and safety. Their impact in totally eliminating greenhouse gas emissions is also a key benefit for many customers, and a key reason New York State is providing incentives and attempting to rev up the heat pump market. **Just In!** provides a limited number of important climate updates most weeks to keep you in the know on this crucial topic that is important to so many New Yorkers.

“NOAA Sea Level Rise Report: Now It’s Personal • Some people complain that stopping climate change will be expensive. There is no question the cost of doing something will be high, but the cost of doing nothing will be much, much higher. The latest report from the National Ocean Service about sea level rise makes that abundantly clear.  [CleanTechnica](https://www.cleantechnica.com/2022/02/17/noaa-sea-level-rise-report-now-its-personal/)” (from 2022 02 17 Green Energy News)

**Figure 11:** Schematic (not to scale) showing physical factors affecting coastal flood exposure. Due to the clear and strong relative sea level rise signal (i.e., combination of sea level rise and sinking lands), the probability of flooding and impacts are increasing along most U.S. coastlines.

“Texas Supreme Court Tells Exxon to Go Pound Sand • In a brazen attempt by Exxon to stop lawsuits against it filed by eight California cities and counties, it argued that the suits violated Texas’ sovereignty and that it had every right to hide the truth about its products because its “free speech” was protected. Texas’s Supreme Court was not impressed.  [CleanTechnica](https://www.cleantechnica.com/2022/02/22/texas-supreme-court-tells-exxon-to-go-pound-sand/)”  (from 2022 02 22 Green Energy News)
“Storm Eunice Carves Deadly Trail Across Europe • At least 16 people have been killed as Storm Eunice carved a deadly trail across Europe. Deaths were reported in the Irish Republic, the UK, Belgium, the Netherlands, Germany, and Poland. Millions of homes and businesses lost power across Europe and transport networks were left in disarray. [BBC] ” (from 2022 02 20 Green Energy News)

“Greenland’s Ice Is Melting From The Bottom Up, And Far Faster Than Previously Thought… • The ice sheet covering Greenland is melting rapidly at its base and is injecting far more water and ice into the ocean than had been understood, according to research. That could have serious ramifications for global sea level rise. [CNN] ” (from 2022 02 23 Green Energy News)
NY City Plans for Shoreline Climate Resiliency – by Nathan Kensinger in Gothamist - “New York City is rolling out a new batch of climate resiliency plans to shore up its coastlines affecting more than 8 million residents living along 520 miles of coastline and hundreds of neighborhoods built on creeks, wetlands and islands.” (from 2022 02 24 – City & State First Read) [Full article here].

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