

## Happy Earth Day!

## THE LATEST NEWS IN GEOTHERMAL ENERGY

Geothermal heat pumps are among the most earth-friendly home energy sources, experts say <a href="https://www.washingtonpost.com/business/2022/03/29/home-geothermal-heat-pumps/">https://www.washingtonpost.com/business/2022/03/29/home-geothermal-heat-pumps/</a>

#### **ORMAT COMPLETES MCGINNESS HILLS COMPLEX EXPANSION**

HTTPS://WWW.ORMAT.COM/EN/COMPANY/NEWS/VIEW/?CONTENTID=9137

At sweltering Southwest Georgia military bases, pioneering a cleaner cooling system <a href="https://www.wabe.org/in-sweltering-southwest-georgia-pioneering-a-cleaner-cooling-system/">https://www.wabe.org/in-sweltering-southwest-georgia-pioneering-a-cleaner-cooling-system/</a>

New Toronto Green Standard Pushes Local Developers to Embrace Clean Energy <a href="https://storeys.com/subterra-sts-renewables-toronto-geothermal-energy-systems/">https://storeys.com/subterra-sts-renewables-toronto-geothermal-energy-systems/</a>

WaterFurnace Expands Commercial Offerings https://www.achrnews.com/articles/146265-waterfurnace-expands-commercial-offerings

Climate change three-star general joins CeraPhi's deep geothermal crusade https://www.renewableenergymagazine.com/geothermal/climate-change-threestar-general-joins-ceraphia-s-20220117

Geothermal energy lies right beneath our feet. Could Philadelphia tap into it? https://whyy.org/articles/geothermal-energy-lies-right-beneath-our-feet-could-philadelphia-tap-intoit/?utm\_source=Energy+News+Network+daily+email+digests&utm\_campaign=01c3577405-EMAIL\_CAMPAIGN\_2020\_05\_11\_11\_42\_COPY\_01&utm\_medium=email&utm\_term=0\_724b1f01f5-01c3577405-89313072

#### Watch Ormat's CD4 Community Benefit Video

https://ormat.us2.list-manage.com/track/click?u=c5a30ef8e9874213fa41116ce&id=122822d37f&e=730fc8c117

A net-zero future for gas utilities? Switching to underground thermal networks. https://www.canarymedia.com/articles/utilities/a-net-zero-future-for-gas-utilities-switching-to-underground-

thermal-networks



NREL's REopt Web Tool: Geothermal Heat Pump Module Now Available - The National Renewable Energy Laboratory (NREL) recently developed and released a new geothermal heat pump technology module as part of the REopt<sup>™</sup> web tool. The new module allows users to simulate the impacts that converting conventional heating and cooling systems to geothermal heat pumps have on on-site consumption of fuels and electricity, utility costs, and CO2 emissions. The REopt web tool enables users to optimize system sizes and battery dispatch strategies to minimize energy costs by entering their facility data, including utility rates, billing history, and local weather. REopt can also be used to estimate how long a system can sustain critical loads during a grid outage, informing resiliency strategies. Check out the updated tool!

| Step 2: Select Your Technologies |                      |          |                        |       |
|----------------------------------|----------------------|----------|------------------------|-------|
| <b>マ</b> PV 🅸                    | 🕑 Battery 📼          | 🛃 Grid 🖡 | <mark>□</mark> Wind i↑ | CHP 🖿 |
| Chilled Water 🛠<br>Storage       | Geothermal Heat Pump |          |                        |       |

Excerpt from the REopt Tool showing Geothermal Heat Pump as a selection

Global Geothermal Power Market is projected to grow at a CAGR of 5.0% By 2032 - Yahoo Finance ... Market Segment by Technology (Ground Source Heat Pumps, Direct-Use Geothermal Power, Deep Geothermal Power Systems, Enhanced Geothermal Power ...

#### Traunreut geothermal plant in Bavaria sold to British investment group - ThinkGeoEnergy

British investor Equitix acquires the **combined heat and power** ... The plant was sold by Grünwald Equity, which was advised by Augusta & **Co**.

Italy's Mt Etna volcano erupts for first time this year https://www.bbc.com/news/av/world-europe-60351395

#### CHING-SHUI INAUGURATION CEREMONY IN TAIWAN

https://www.ormat.com/en/company/news/view/?ContentID=9182

#### CeraPhi Energy and Climate Change Ventures collaborate for baseload Green Hydrogen

https://ceraphi.com/ceraphi-energy-and-climate-change-ventures-collaborate-for-baseload-green-hydrogen/



**Financing Helps Meet Rising Demand for Residential Geoexchange** – "Over the last five years, Toronto-based VCIB has amassed a track record for financing geoexchange projects that provide low-carbon heating and cooling to buildings across a range of asset classes, types, and geographies — from new builds to refinancing successful projects as they move into the next operational life cycle, and from single-family homes and subdivisions to large condo complexes." In true Canadian fashion, the article calls it "Skating to where the puck will be." Thanks to NY-GEO member Paul Coons for this tip. <u>Full story here</u>.

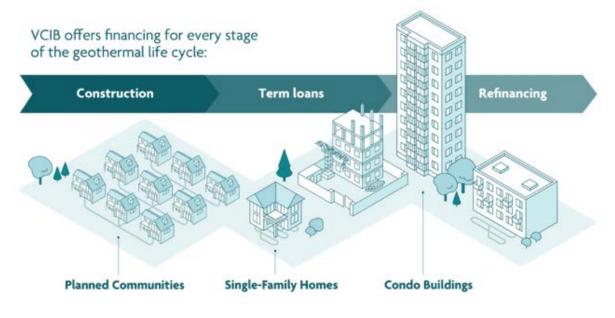


Image credit: VCIB.

#### Request for Information: Department of Defense Seeks Information Related to Geothermal Energy

The Department of Defense (DoD) recently <u>issued a request for information (RFI)</u> seeking information related to the feasibility of implementing a firm-fixed-price renewable energy supply agreement for geothermal energy for use at multiple DoD locations.

#### State's climate council wants heat pumps in all new homes by 2024

https://www.timesunion.com/environment/article/Climate-council-wants-heat-pumps-in-all-new-homes-16735773.php

#### Colleges see untapped potential in geothermal district energy systems

https://energynews.us/2022/02/07/colleges-see-untapped-potential-in-geothermal-district-energysystems/?utm\_medium=email&utm\_source=rasa\_io\_



## **ELECTRIC POWER and ENERGY TRENDS**

#### **Economist Lord Stern to Receive Top Energy Policy Prize**

Lord Nicholas Stern, professor at the London School of Economics and Political Science (LSE), author of the groundbreaking Stern Review on the Economics of Climate Change, and former chief economist and senior vice president of the World Bank will accept the Carnot Prize on Penn's campus in April. Read more

#### U.S. Electricity Regulator Grapples with Barriers to a Clean Grid

Who will pay for the electric grid of the future? The Federal Energy Regulatory Commission explores options to incentivize and finance a vast transmission network to support clean energy. Listen

#### The Biden Administration's Offshore Wind Fantasy

https://www.manhattan-institute.org/lesser-biden-administrations-offshore-wind-fantasy#notes?utm\_source=mailchimp&utm\_medium=email

#### A Brief History of Geothermal Energy Use

http://web.mit.edu/nature/archive/student\_projects/2009/bjorn627/TheGeothermalCity/History.html

#### A Brief History of Geothermal Heating and Cooling

https://dandelionenergy.com/the-history-of-geothermal-heating-cooling

# Bellingham - Washington's 3<sup>rd</sup> city to require electrification of new commercial and large residential buildings

https://www.re-sources.org/2022/02/bellingham-sets-strong-standards-for-climate-and-health-friendly-electricbuildings/

#### IEEFA: Solar recharging of electric vehicles is a far more efficient use of land than ethanol

**crops for blended fuel in India** Charles Worringham and Press Release India: Ethanol Blending is Inefficient 23 March (IEEFA): India's 2025 target for 20% ethanol blending in petrol requires large increases in ethanol from sugar and grains. A new report by the Institute for Energy Economics and Financial Analysis (IEEFA) shows that generating solar energy to recharge electric vehicle (EV) batteries would be a far more efficient use of land than [...]

Read in browser »

#### Biden's proposed budget includes nearly \$45B for climate and clean energy, a 7% increase for DOE

https://www.utilitydive.com/news/biden-proposed-budget-2023-climatedoe/621168/?utm\_source=Sailthru&utm\_medium=email&utm\_campaign=Issue:%202022-03-29%20Utility%20Dive%20Newsletter%20%5Bissue:40716%5D&utm\_term=Utility%20Dive



### **UPCOMING EVENTS** (please let us know of any upcoming events that we should share)

The sixth annual NY-GEO Renewable Heating & Cooling Conference at the Albany Wolf Road Marriott Hotel on April 27th & 28th 2022

May 11, 2022 @ 11:30 ET: IGSHPA Virtual Town Hall (Session 1 of Two-Part Series- Residential Geothermal Application: How does it compare to Conventional? Tech Portion) Register here.

October 6<sup>th</sup> – International Conference on Geothermal Systems. Thu Oct 6 – Fri Oct 7.



World Geothermal Energy Day – October 17

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- Access to social media cards from site •
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