

OFFICE OF ENERGY POLICY

#### OCTOBER, 2021

### OEP Staff Notes: The Best of What We're Reading

Amazon, DOE, PJM urge FERC to support proactive transmission planning for an evolving grid (UtilityDive Oct. 15, 2021)

#### Carbon Capture: Solved by Software?

The approach of burying CO2 emissions deep underground has struggled to be economically viable, but that could be changing (Scientific American Jan. 23, 2020)

<u>Duke Energy Foundation awards \$170k grants for environmental programs;</u> <u>three are in NKY</u> (Northern Kentucky Tribune Oct. 22, 2021)

Natural gas heating your home? This could be the most expensive winter in 13 years (WHAS Nation World, Oct. 13, 2021)

### About Us



The OEP staff are committed to our mission to utilize Kentucky's energy resources for the betterment of the Commonwealth while protecting and improving our environment. Visit our <u>Energy Website</u> to learn about the new <u>KYE3 Energy Strategy</u>.

Partner Spotlight



### Viz of the Month

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Billion-Dollar Weather and Climate Disasters: Time Series

## **OEP Updates & News**



### Kentucky Energy and Environment Cabinet Releases New State Energy Strategy

Governor Andy Beshear, on October 20, 2021, in collaboration with the Energy and Environment Cabinet, announced Kentucky's energy strategy for a transitioning energy landscape. The strategy is known as <u>KYE3: Designs for a Resilient Economy.</u>

KYE3 takes a new approach to state energy planning that identifies high-level goals that the state wants to achieve but leaves the process of how to develop policies and strategies up to various stakeholders in the state.

The intended result is a community and stakeholder-driven process that is flexible and adaptable to changing situations. Several recommendations were made to support this strategy, including attracting coal-to-advanced carbon product

opportunities, increasing innovation and sustainable business investments, improving resiliency throughout the energy

economy, and leading by example through state agency changes and expanding resilient funding options.

The OEP is tasked with overseeing the implementation of Kentucky's comprehensive energy strategy and will be reaching out to communities to discuss the strategy and obtain input on how to achieve these goals. For further information, please contact the OEP at <u>energy@ky.gov</u> or <u>visit their webpage</u> for more information on their programs and data products.

#### Kentucky Governor Andy Beshear announces KYE3: Designs for a Resilient Economy, a new energy strategy.



## Governor Beshear Announces October Energy Awareness Month

FRANKFORT Ky. (Oct. 6, 2021) – In an effort to increase energy awareness and encourage citizens to make a difference by reducing their energy use, Gov. Andy Beshear has proclaimed October as Energy Awareness Month in Kentucky with October 6 designated Energy Efficiency Day. Learn more.

To learn more about Kentucky's energy efficiency potential visit the National Renewable Energy Laboratory's fact sheet. (Kentucky Residential Energy Efficiency Potential (nrel.gov)



## KY Habitat for Humanity - Appliance Rebate Program Provides Savings to Habitat Affiliates and Families

During the past several months, <u>KY Habitat for Humanity</u> affiliates have been getting back into the swing of things, utilizing volunteers on site as well as serving families. Through a partnership with the Kentucky Energy and Environment Cabinet Office of Energy Policy, KY Habitat launched the 2021 Appliance Rebate program. Supported by grant funds from Kentucky's State Energy Program, the rebate program pays for \$1,000 in rebates per household, for energy-efficient appliances or mechanical systems installed in Habitat new construction or for critical home repairs. The grant funds will benefit up to 30 low-income families. In the first two weeks of the program, Habitat affiliates from Union County and Hardin County have already participated in the program. To learn more OEP's State Energy Program, contact <u>Kenya Stump</u>, Executive Director, Office of Energy Policy, Kentucky Energy and Environment Cabinet.

## **Out and About**

October 13 – Lona Brewer participated in the Kentucky Federal Highways Resiliency Workgroup and presented on the VW Settlement funding.

October 20 and 21 - OEP staff participated in the 45th Governor's Conference on Energy and the Environment. October 22 - Lona Brewer and Eileen Hardy participated in an electric school bus demonstration that was on-site at the EEC 300 Sower Building. The demonstration was sponsored by Kentucky Clean Fuels Coalition and Boyd Truck Centers.

## Resources



2022 Kentucky Legislative Preview Conference -Friday, December 17, 2021 Kentucky Chamber of Commerce

Registration is open for the <u>2022 Kentucky Legislative Preview Conference</u> hosted by the Kentucky Chamber of Commerce. The one-day event is an opportunity to hear many of Kentucky's top public officials discuss their plans, priorities, and predictions for next year's legislative session – you'll get the inside scoop from those who know. <u>Click or tap here to register now</u>.

## DOE Announces Clean Energy Cybersecurity Accelerator Program to Modernize the Grid

Program Will Accelerate the Deployment of Cyber Solutions to Combat Threats to the Power Grid

WASHINGTON, D.C. — The U.S. Department of Energy (DOE) and the National Renewable Energy Lab (NREL) today announced the launch of the Clean Energy Cybersecurity Accelerator, a technology partnership of federal experts, industry partners in the energy sector, and innovators to accelerate the development of new cybersecurity solutions for the nation's evolving grid. The program will support efforts to modernize the grid, address cybersecurity vulnerabilities, and create a grid that will withstand the transition to a clean energy economy in the effort to reach net-zero emissions by 2050. <u>Read</u> more.

## Better Plants Partners Save More Than \$9 Billion in Energy Costs

Better Plants partners with leading manufacturers and water utilities to improve energy efficiency and competitiveness in the industrial sector, helping partners save energy and money in the process.

On Oct. 20, 2021, the U.S. Department of Energy announced that <u>Better Buildings, Better Plants</u> partners have cumulatively saved more than \$9 billion in energy costs and 1.9 quadrillion British thermal units (Btus). Over 250 manufacturers and water and wastewater treatment organizations, representing more than 14% of the U.S. manufacturing footprint and 3,500 facilities, now partner with DOE through Better Plants. Thirty Better Plants partners are also part of the newly launched Low Carbon Pilot. Read more about the accomplishments of Better Plants partners in the <u>2021 Better</u> Plants Progress Update.



Independent Statistics & Analysis U.S. Energy Information Administration TODAY IN ENERGY U.S. Energy Information Administration

#### OCTOBER 20, 2021

#### EIA projects non-OECD Asia to become the largest importers of natural gas by 2050

In the *International Energy Outlook 2021* (IEO2021), U.S. EIA projects that non-OECD countries in Asia will collectively become the largest importers of natural gas by 2050. In 2020, the countries of OECD Europe were collectively the largest importers of natural gas, followed by Japan and South Korea combined, and then non-OECD Asia, which includes China and India. See graph and read more...

#### OCTOBER 19, 2021

#### Drilling and completion improvements support Permian Basin hydrocarbon production

The Permian Basin, which spans western Texas and eastern New Mexico, represents the most prolific hydrocarbon production region in the United States. They accounted for about 30% of U.S. crude oil production and 14% of U.S. natural gas production (measured as gross withdrawals) in 2020. Technology innovations, such as longer lateral wells and multi-well pad drilling, has helped reduce costs and increase productivity in developing oil and natural gas resources in the Permian Basin. See graph and read more... OCTOBER 14, 2021

#### U.S. natural gas prices likely to remain elevated through the winter

In the October *Short-Term Energy Outlook* (STEO), U.S. EIA forecasts that natural gas spot prices at the U.S. benchmark Henry Hub will average \$5.67 per million British thermal units (MMBtu) between October and March, the highest winter price since 2007–2008. The increase in Henry Hub prices in recent months and in our forecast reflect below-average storage levels heading into the winter heating season and strong demand for U.S. liquefied natural gas (LNG), even

though we've seen relatively slow growth in U.S. natural gas production. We expect Henry Hub prices will decrease after the first quarter of 2022, as production growth outpaces growth in LNG exports, and will average \$4.01/MMBtu for the year.

### See graph and read more...

#### WINTER HEATING FUELS

The U.S. EIA publishes weekly, national, regional, and state average prices for residential heating fuels. During the week of Oct. 18, Kentucky's average price for residential propane was \$2.67 per gallon and the price for No. 2 heating fuel is \$3.09 per gallon. For the full report and prices for natural gas and electricity, <u>click here.</u>

the U.S. EIA <u>Short Term Energy Outlook</u> was released Oct. 13, 2021. The report forecasts that average U.S. household expenditures for all major home heating fuels will increase significantly this winter primarily because of higher expected fuel costs as well as more consumption of energy due to a colder winter. Average increases vary by fuel, region, and weather assumptions. Compared with last winter, we forecast propane expenditures will rise by 54%, heating oil by 43%, natural gas by 30%. Learn more.



#### **ENERGY STAR for Commercial Buildings and Industrial Plants**

# The Empire State Building lights will turn blue on October 27 in honor of ENERGY STAR certified buildings!

On October 27, the Empire State Building's tower will once again light up ENERGY STAR blue to recognize the more than 38,000 buildings and plants (including the Empire State Building itself) that have earned EPA's ENERGY STAR certification. Learn more. Kentucky is currently home to 796 ENERGY STAR certified buildings, representing 69,207,277 square feet of conditioned space. <u>Click here for details</u>.

## **Energy in Education**



### K-12 Spotlight: Creek Day at Julius Marks Elementary Bluegrass Greensource

"We're looking at earth science, relationships in ecosystems, animal traits, and how they function," said Rachel Patton of Bluegrass Greensource. "Environmental education has to start close to home so the kids make these connections."

Bluegrass Greensource educators Pattie Stivender and Rachel Patton, recently led a creek day at Julius Marks Elementary, Fayette County Public Schools. Tammy Lane, FCPS Webmaster, joined one of the classes and wrote a great story about the experience. <u>Read the full article.</u>

## GEV EV Well Underway!

#### UK Center for Applied Energy Research

The University of Kentucky Center for Applied Energy Research (UK CAER) GEN EV, STEAM Electric Vehicle Program for elementary-school students is well underway. Eighteen Kentucky schools are participating in the program.

Pictured are students from East Perry Elementary, Perry County School District. An elementary teacher from the school reports, "The program Is going great!" Students are getting a start on building the car--they are so excited, I had to tell them it was time to stop working!"



The GEN EV Program is supported in part through the Kentucky Energy and Environment Cabinet State Energy Program. To learn more, contact <u>Shiela Medina</u>, at UK CAER or <u>Kenya</u> <u>Stump</u>, Executive Director Office of Energy Policy, Kentucky Energy and Environment Cabinet.



# Behold, the power of hydrogen!

To celebrate Oct. 8, <u>National Hydrogen and Fuel Cell Day</u>, the Department of Energy published a new clean hydrogen explainer video, narrated by Secretary of Energy Jennifer M. Granholm.

Clean energy sources like, hydrogen, will help us combat climate change by addressing industrial emissions that are often hard to decarbonize. And, it can be produced from a variety of clean energy sources including renewables and nuclear.





Energy & Environment Cabinet Office of Energy Policy Newsletter, July 2019 300 Sower Blvd Frankfort, KY 40601

Contact Us



502-564-3350

