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The **Alert** newsletter provides monthly updates on transportation and air quality planning activities within the Delaware Valley.

June 2023

Energy and Air Quality

EPA Proposes Stricter Carbon Emissions Standards for Power Plants

On May 11, the U.S. Environmental Protection Agency (EPA) proposed new standards that aim to reduce carbon dioxide (CO₂) emissions from fossil fuel-fired power plants. The proposed rule, which would not take effect for existing plants until 2030, sets efficiency targets for electric generating units (EGUs) in terms of carbon emitted per kilowatt-hour of energy generated depending on the plant's fuel source, frequency of operation, and other factors.

EGUs, of which a power plant may have multiple, can use a variety of processes and fuel sources to produce electricity, but the two covered by this proposal are boilers and combustion turbines. According to the [Energy Information Administration](#), boilers use the heat from coal or another fuel to boil water which in turn drives a steam turbine that generates electricity. In contrast, combustion turbines are like jet engines that use the hot exhaust gases produced from burning a fuel like natural gas to spin blades of a turbine and generate electricity. For both types of EGU, EPA hopes the new standards will add "momentum for technologies like carbon capture and storage (CCS) and clean hydrogen" by encouraging adoption of current technologies and spurring further development.

The [fact sheet](#) released by EPA emphasized that the proposal was flexible, practically implementable through the use of cost-effective strategies, and compatible with the nation's need for reliable and affordable electricity. For existing coal boilers, EPA set the new targets for efficiency based on the implementation of natural gas co-firing and CCS technologies. For combustion turbine-based EGUs units, EPA designed the limits based on the use of co-firing hydrogen from low-carbon sources in addition to CCS.

CCS encompasses a variety of technologies that aim to help address greenhouse gas emissions by intercepting CO₂ before it is released into the atmosphere. While many methods of CCS are under development, amine-based CO₂ capture is currently the most common. According to an [article from MIT](#), amine-based CO₂ capture works by running carbon-rich exhaust gases through an absorber that contains a solution of chemicals called amines. The carbon dissolves in the solution and stays in the absorber while the rest of the exhaust is released into the air. Once the solution is saturated, it goes into a regenerator which separates the amines, which are reusable, from the CO₂. The pure CO₂ can then be stored underground or sold to be utilized by another industry.

According to [EPA's press release](#), the standards would deliver net health and environmental benefits over the next two decades valued at up to \$85 billion. In 2021, the power sector accounted for a quarter of domestic greenhouse gas emissions, making it the second largest source of emissions, behind only the transportation sector. EPA estimates that, if implemented as proposed, the new standards would result in 89 million fewer metric tons of CO₂ being released into the atmosphere in 2030 alone. Additionally, the adoption of the new standards would also cut other pollutants such as particulate matter, oxides of nitrogen, and sulfur dioxide.



Save the Date

Monday, July 10, 2023

Safe Streets and Roads for All Grant Program

Applications Due

Information is available at:
transportation.gov/grants/SS4A

Friday, July 28, 2023

USDOE Ride and Drive Electric Grant Program

Applications Due (Concept Papers due June 16)

Information is available at:
energy.gov

Sustainable Urban Forestry

New Jersey Department of Environmental Protection Awards Over \$1 Million To Improve Management of Urban Forests

The New Jersey Department of Environmental Protection (DEP) recently awarded the latest round of its Urban and Community Forestry Stewardship Grant (NJUCF). The grant program, which has been competitively awarded since 2000, aims to assist local forestry programs in planning for and managing community trees in a sustainable manner. This round saw \$1.1 million awarded to 23 local governments across the state. In the DVRPC region, Trenton, Haddonfield, and Princeton were each awarded \$50,000 for planning activities, and Moorestown was awarded \$8,000 for reforestation efforts.

Well-maintained trees in populated areas are associated with numerous environmental and societal benefits. In addition to improving neighborhood appeal and property values, their shade can reduce utility and road maintenance costs by reducing the heat generated by hard surfaces and structures. Trees also benefit their environs by absorbing carbon dioxide, filtering particulate matter, and mitigating stormwater runoff.

The [announcement](#) was released on March 21 to coincide with the International Day of Forests and emphasized the importance of long-term management strategies for local forestry programs. According to the [program's brochure](#), the average downtown tree only has a 10 year lifespan because it is often neglected once planted and inhabits a stressful environment. In order to be eligible for NJUCF funds, a municipality must have an accredited forestry program and maintain an approved Community Forestry Management Program. The NJUCF compliments DEP's [Green Communities Grant](#) program which helps municipalities in creating their initial management plan. Across the state, 253 municipal and county governments have a tree management plan, 152 of which meet the training and reporting requirements for full accreditation by the state. DEP says it hopes to announce a new round of grants sometime this year.

Grant Opportunities

New Jersey Department of Transportation Opens Application for Municipal Transportation Grants

On April 26, the New Jersey Department of Transportation (NJDOT) [announced](#) the opening of the solicitation period for four transportation grants. The largest grant, with opportunities totaling \$161.25 million, is the municipal aid program. The municipal aid program is competitively awarded on an annual basis to supplement local transportation programs. While the municipal aid program supports numerous types of projects, including road resurfacing and bridge preservation, NJDOT is encouraging applicants to consider projects that promote safety for cyclists and pedestrians.

Besides the municipal aid program, NJDOT is now also accepting applications for their transit village, bikeways, and safe streets to transit programs. The transit village program funds transportation projects that enhance walking, biking, and transit ridership within a half-mile of a transit facility. It is only open to municipalities that have met the criteria to be designated as transit villages. Statewide, 34 municipalities have earned the transit village designation. Most of these are in the northern portion of the state, but four—Collingswood, Riverside, the City of Burlington, and West Windsor Township—are located in the DVRPC region.

Additionally, NJDOT's bikeway program funds bike infrastructure such as bike lanes and trails, with new bikeways that are physically separated from vehicular traffic being particularly encouraged. Finally, the safe streets to transit program funds the construction of pedestrian facilities that make transit more accessible for all. The bikeway and safe streets to transit programs are open to counties in addition to municipalities. Applications for all programs will be open through July 1.



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