



Facts about...

ODEC Cypress Creek Power Station

Old Dominion Electric Cooperative (ODEC) has proposed building a 1,500 megawatt, coal-fired power plant – the Cypress Creek Power Station – in Dendron in Surry County, Va. If built, the plant would be the largest coal-fired power plant in Virginia. The Chesapeake Bay Foundation is very concerned that the plant will add significant additional pollution to an already polluted Chesapeake Bay, threaten human health, and exacerbate climate change and sea level rise in the Chesapeake Bay.

NITROGEN POLLUTION – MORE WILL HURT THE BAY

- A primary goal of the federal-state Chesapeake Bay cleanup is reducing nitrogen pollution.
- The Cypress Creek plant would add **1.9 million more pounds of nitrogen pollution*** to the air above the Chesapeake Bay and surrounding lands. A significant portion of that airborne nitrogen pollution will settle or run off into the James and other Virginia rivers and the Chesapeake Bay, a system already so plagued by excess nitrogen pollution that it is on the Environmental Protection Agency’s official “dirty waters list.”
- Nitrogen pollution promotes excess algae in the Bay that cloud the water, stunt underwater grasses, and rob the water of oxygen vital to fish, crabs, and oysters. Nitrogen pollution is a chief cause of the massive “dead zones” that appear annually in the Bay.

TOXIC MERCURY – A THREAT TO PEOPLE AND WILDLIFE

- A primary goal of the federal-state Chesapeake Bay cleanup is a Bay free of toxic chemicals.
- The Cypress Creek plant would release **118 pounds of mercury*** into the air, making it the 7th largest emissions source of mercury in Virginia.
- Some of the airborne mercury falling into lakes, rivers, and wetlands quickly converts to a toxic form of mercury that contaminates fish, birds, and other wildlife.
- Already, approximately 1,300 miles of Virginia rivers and nearly 40,000 acres of Virginia lakes are contaminated by mercury, including the Meherrin River, parts of the Nottoway, Blackwater, Mattaponi, and Pamunkey rivers, Dragon Run, Lake Drummond, Lake Whitehurst, Lake Trashmore, Chickahominy Lake, and Harrison Lake. All are in close proximity to the proposed power plant site.
- Mercury is toxic to humans, especially fetuses, infants, children, and pregnant women. Mercury affects learning ability, language, motor skills and, at high levels, causes permanent brain damage.
- One gram of airborne mercury falling on a 20-acre lake over the course of a year can contaminate fish enough to trigger Health Department fish consumption advisories. The proposed Cypress Creek plant would release 53,524 grams of mercury annually.

NITROGEN OXIDES – MORE SMOG, MORE HEALTH PROBLEMS

- Ozone smog and soot released by coal-fired power plants are associated with increased risk of asthma, heart and respiratory problems, increased absences from school and work, increased hospitalizations, increased medication, and increased risk of premature death.
- The Cypress Creek plant would release **6.2 million pounds of nitrogen dioxide* (NO_x)**; this is 8.5 times more NO_x pollution than now produced by the entire County of Surry. NO_x is a major component of ground level ozone (smog). NO_x pollution from the power plant would threaten air quality in Surry County and worsen existing smog problems in Hampton Roads and Richmond, two regions soon to be designated by EPA as unhealthy for smog.
- According to EPA, power plants are the second-largest source of NO_x in the atmosphere; in Virginia, power plants produce 18 percent of the annual airborne NO_x pollution.

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GREENHOUSE GASES – WORSENING CLIMATE CHANGE, SEA LEVEL RISE

- Climate change caused by excess greenhouse gases will worsen sea-level rise in the Chesapeake Bay region, the second-most vulnerable area in the United States to impacts of sea level rise. This poses significant threats to the region's environment, economy, and military.
- The Cypress Creek plant would release **14.6 million tons of carbon dioxide*** into the air each year (the equivalent of an additional 2.5 million passenger cars), adding more greenhouse gases to the earth's atmosphere and exacerbating climate change problems.
- Recent scientific studies suggest that increased carbon dioxide levels in the Chesapeake Bay may increase the acidity of Bay waters and seriously threaten restoration of the native oyster.
- Coal-fired power plants are among the worst greenhouse gas polluters. To date, no technology exists to feasibly capture and contain carbon dioxide from coal-fired power plants (carbon sequestration).

ALTERNATIVES TO A NEW COAL-FIRED POWER PLANT ARE AVAILABLE

- Energy Efficiency and Conservation – A 10 percent reduction in energy through efficiency and conservation will reduce Virginia's 2016 estimated power shortfall by 97 percent; a 14 percent reduction in energy through efficiency and conservation will eliminate all shortfalls and produce an excess 1,055 megawatts of electricity.**
- Renewable Energy – Virginia has enough untapped renewable energy resources, including wind, tidal, solar, biomass, municipal solid waste, and others, to develop nearly 44,000 megawatts of electricity.**

* *ODEC-provided estimates*

** *2007 Virginia Energy Plan*