Biomass Cannot Be Part of a U.S. Renewable Energy Future

As the United States explores needed renewable energy strategies for the future, these efforts are marred by the consideration of dirty energy sources like biomass as "renewable." The word biomass suggests sustainable energy, but it includes archaic, polluting energy such as burning wood. Burning wood and other biomass should have no place in the U.S. plan for renewable energy generation. Only wind, solar, tidal and geothermal power can deliver the clean energy future we deserve.

Biomass has no place in renewable energy

Burning wood spews greenhouse gases that contribute to climate chaos. The year 2018 brought scorching heatwaves to the southwestern United States, more powerful storms and flooding along the east coast, and destructive forest fires to the western United States.[1] Biomass is not clean energy and has no place in the U.S. renewable energy future.

The U.S. Environmental Protection Agency (EPA), U.S. Department of Energy and U.S. Department of Agriculture all recognize and promote biomass as a renewable energy source.[2] Former EPA administrator Scott Pruitt even suggested that U.S. forests could actually offset potential carbon dioxide emissions by burning wood for energy.[3]

Most states with renewable energy mandates allow wood-fired power plants to be counted toward renewable energy goals.[4] Proponents claim that biomass is carbon-neutral because it avoids combusting fossil fuels or sending biomass to landfills, and because trees can be replanted to sequester wood-fired emissions.[5] In reality, processing, transporting and burning wood all produce greenhouse gas emissions, which can be greater than those from coal.[6]

There are more than 200 wood-fired power plants in the United States that could burn up to 260 billion pounds of wood annually.[7] These biomass facilities are anything but clean, and they typically emit up to 60 percent more carbon emissions than modern coal plants and about three times more than natural gas plants.[8]

Wood pellet production is dirty and bad for the climate

The harvesting and production of wood for incineration also causes a host of problems. Many forestry companies manufacture wood pellets for power plants from waste wood, but some have been clearcutting forests to supply biomass.[9]

Harvesting whole, healthy trees increases net carbon emissions more than burning fossil fuels.[10] Exposure to these air pollutants has been linked to respiratory irritation and infection, increased blood pressure, heart attacks and heart disease, as well as to reduced life expectancy in humans.[11] A woman whose family moved near a biomass facility in rural Texas claimed that within a year she started having respiratory problems. "I was getting sick all the time," she said, despite previously being in excellent health.[12]

Demand for U.S. wood pellet exports for energy use abroad has increased biomass production at home, meaning that locals endure health and environmental impacts for dirty exports.[13] Wood pellet facilities often produce high levels of particulate matter, nitrogen oxides, carbon monoxide and volatile organic compounds while skirting regulations.[14] In 2017, over half of U.S. wood pellet plants either violated permit pollution limits or failed to install required pollution controls.[15] In the southeastern United States, forestry companies have been increasingly clearcutting forests to supply wood pellets to European power plants.[16]

Biomass facilities pose risks to workers and communities

Biomass facility accidents have put workers and surrounding neighborhoods at risk across the country.[17] A 2018 report found that 8 of the 15 largest operating biomass facilities experienced explosions or fires within the previous four years.[18] In 2017, in Port Arthur, Texas, a fire that blazed for two months at a wood pellet facility forced several nearby residents to seek medical care and allegedly contributed to the death of a worker.[19]

Since 2012, a slew of worker safety violations have occurred at biomass facilities, with penalties totaling $161,087.[20] In the last two months of 2017, a worker was killed after being pulled into a conveyor belt at a New Hampshire biomass plant, and another worker died in a fall at a Minnesota biomass plant.[21]

The United States must reject dirty biomass

Burning, harvesting and producing wood for biomass contributes to climate change and emits air pollutants that are toxic to the environment and public health. Including dirty biomass in any U.S. renewable energy plan would be a giant step backward. It is time to invest in a just transition to a 100 percent, zero-emission, clean energy future.

Endnotes

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15 *Ibid.* at 1.

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