

Episode 56DV May 1, 2023. The “Drax wood burning may take guidance, rather than be regulated by the United Kingdom, campaigners object” issue.

Residents Against Wood Smoke Emission Particulates (see RAWSEPresidents.wordpress.com and Scroll Down for PDFs of articles with U R L’s to search on. On RAWSEPresidents.wordpress.com are links to 30 minute Youtube videos, and podcasts on Spotify, podcasts.google.com, Amazon Music Prime (free for Prime subscribers), Cast Box, and Pocket Cast (Pocket Cast is only free on the phone App. The phone App works on Apple phones).

United States

California, Modesto in the San Joaquin Valley

[Valley Air District rebates to replace old stove, fireplace - Modesto Bee](#)

Modesto Bee

... reduce emissions from wood or pellet-burning stoves or fireplaces. ... the old wood-burning device that will be replaced through the program, ...

Excerpts edited by RAWSEP for brevity and clarity and relationship to Residents Against Wood Smoke Emission Particulates.

April 29, 2023. The Valley Air District offers up to \$5,000 through the Fireplace & Woodstove Change-Out Program to help reduce emissions from wood or pellet-burning stoves or fireplaces. Residents can save thousands of dollars through a San Joaquin Valley Air Pollution Control District incentive program if they replace their home heating and cooling with an electric heat pump system. The Valley Air District offers up to \$5,000 through the Fireplace & Woodstove Change-Out Program to help reduce emissions from wood or pellet-burning stoves or fireplaces. These appliances emit particulate matter that worsens air pollution, according to the district. Here’s how to receive a voucher, including how to apply and who is eligible, according to the district’s website: How the voucher works. Residents can submit an application with all required documents for district approval to receive a voucher that would help cover the costs of removing and replacing old units. Existing gas and electric units are not eligible for the program.



Heat Pumps with moving fire logo on the front can be purchased for about \$2,000 more than ordinary Heat Pumps. See white brick façade photo. Facebook comments follow.

This is a heat pump fireplace prototype. Basically it's a heat pump disguised as an electric fireplace. It is expected to cost about \$2K more than a regular wall mounted mini-split system.

What are your thoughts? Worth it for the "ambience?"

1)Concept 9, style 4 2)Why? You could save so much space! And do something more productive or fun than staring at some 'fake' fire! 3)This is the very definition of a solution looking for a problem. 4)Does it also do cooling or just heat ? I assume so as a mini split - it is heat and cooling 24/7 ? Or just when you put the fireplace on ? 5)Big fan - this has real potential! What is inside the box? Side-mounted short duct "pancake" head unit? Or something unitary like Ephoca? 6)Good idea, but keep working on the design! 7)I agree. It could be worth it, but the mantle should be thicker and probably overhang a bit more. And of course you will want to offer multiple surfaces- some that are shipped with the finished exterior, and some that could take a site ins... 8)Yes, and although I hate fake anything, if the 'fire' is going to be there, it better look more authentic IMO.



Colorado, Aspen

Smoke will be from planned burns: 1,500 acres at Collins Creek, 750 acres at ... - Aspen Times

Aspen Times

Prescribed fire smoke may affect health. For more information, visit colorado.gov/pacific/cdphe/wood-smoke-and-health .

RAWSEP View: The artist Philip Moulthrop uses wood to create bowls and other serviceable art pieces.

Georgia, Marietta

<https://www.craftinamerica.org/artist/philip-moulthrop/>

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Philip Moulthrop began turning wood in 1979 after learning the technique from his father, Ed Moulthrop. He Begins with green sections of native southeastern trees and a chain saw. The green log is first roughed into the initial shape, using a hand-made lathe and hand-forged tools. The piece is then treated for several months to prevent cracking, next, the wood must dry for more than a month. It is then re-turned on the lathe where it is refined to its final form. The bowl undergoes sanding and several coats of finish. The entire process may take from four months to more than a year.

RAWSEP View: Continuing to use a wood burning stove when there are modern clean alternatives, and polluting the air of your own home and polluting the air in the yards and infiltrating the homes of near neighbors is not just “naïve, close minded, and downright wrong,”. Wood smoke is 90% PM2.5, particulate matter of 2.5 micrometer size, the perfect size to infiltrate the human lung, setting off a cascade of human health problems and early deaths. Continuing to use a wood burning stove when there are modern clean alternatives, affects the health and lives of near neighbors of the wood burner. The book author’s grandmother, in the article below used a wood burning stove alongside her electric oven throughout her life. The book author at first thought of this as “naïve, close minded, and downright wrong,”. This tentative criticism of the practice of wood burning is criticism ultimately taken back by concluding that using the wood stove had historical value. The book author’s revisionistic history of cooking practices, looking back to a past that never was right because it romanticized pollution, ignores the scientific truths about wood burning we all now know, or should know today, making the book’s romanticism of wood burning “naïve, close minded and downright wrong.”

North Carolina

[Putting It All On The Table - The Assembly NC](#)

The Assembly NC

After all, this was a woman who kept her wood-burning stove alongside her electric oven throughout her life. But those presumptions of her ...

Excerpts edited by RAWSEP for brevity and clarity and relationship to Residents Against Wood Smoke Emission Particulates.

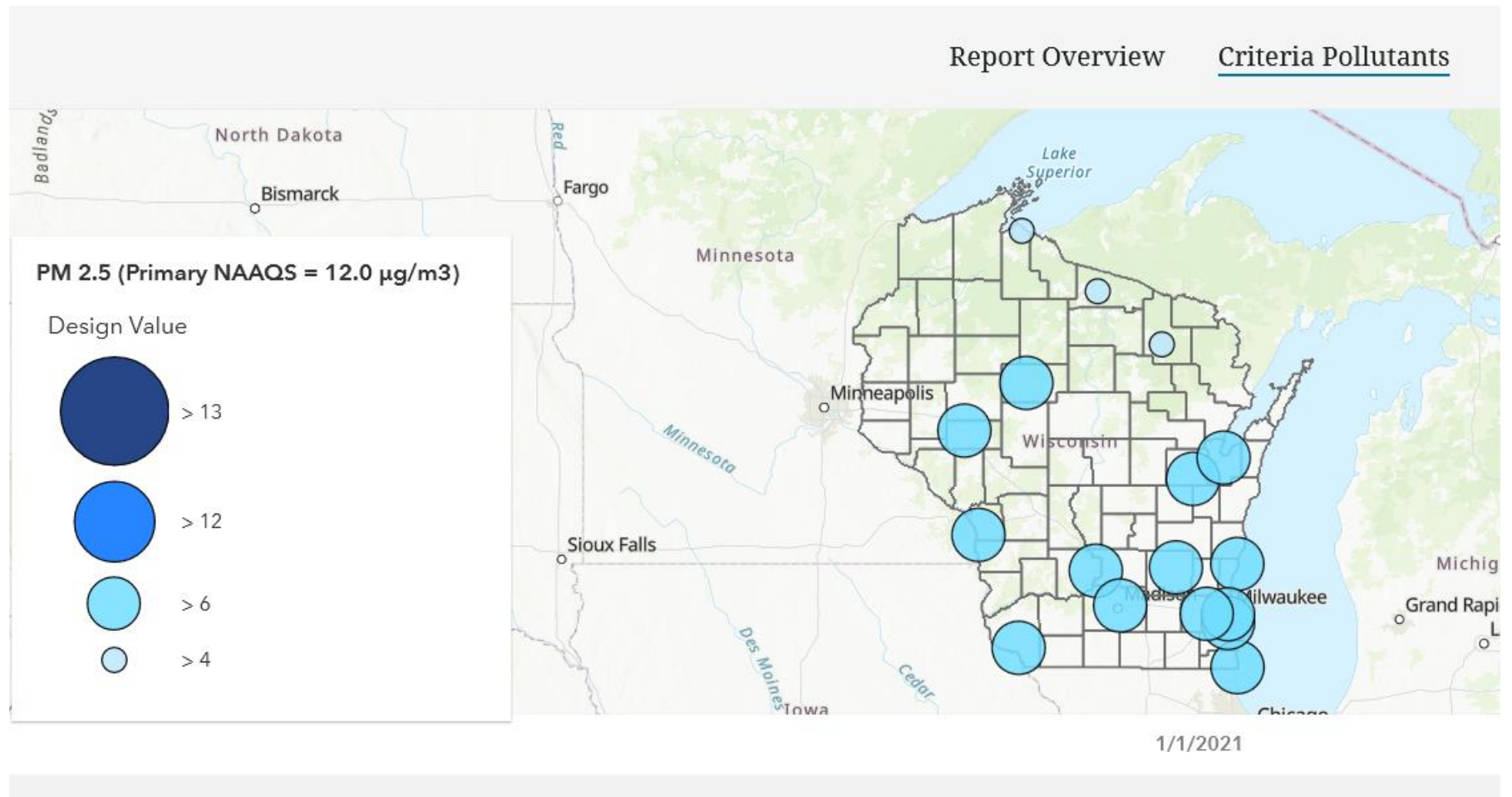
This literary column highlights books in the Old North State, North Carolina. In 2016, North Carolina's Erica Abrams Locklear (E A L) discovered an old handmade cookbook with recipes from 1936 to 1952. E A L had thought her grandmother, a fifth-generation North Carolinian, was a cook of traditional mountain recipes. But these recipes included "Baby Ruth cookies," "Jiffy featherweight biscuits," and "Kellogg's Krispies Marshmallow Squares." Had E A L had unrealistic notions of old-time ways, and overlooked modernity in her grandmother's kitchen? E A L's grandmother kept her wood-burning stove alongside her electric oven all her life. E A L had thought her grandmother's ways were "naïve, close minded, and downright wrong,". E A L's book wades through why current people from Appalachia have the same misconceptions of old ways as "naïve, close minded, and downright wrong,". Besides recipes, E A L looks at novels set in North Carolina from the 1850s to the present. Robert Gipe's novels show a North Carolina convergence of traditional foodways with more commercial, processed products. Gipe's Appalachia is one in changeover, like E A L's grandmother's kitchen: the old sitting beside the new.

RAWSEP View: Near neighbors of residential wood burners experience health effects from PM2.5 emissions in hyper-localized areas. Low cost \$249 PM2.5 monitors should be handed out to any near neighbor of a residential wood burner who experiences health effects and complains to their municipality in Wisconsin, so regulation and shut down of the polluting wood burning can occur. A Citizen Resolution to this effect was passed by the Wisconsin Conservation Congress on 4/13/2023. The wording of the resolution follows:

Dane County 131523 Wisconsin government (should) provide citizen-scientist residents 2.5 micrometer Particulate Matter PM2.5 air quality monitors to end residential wood burning, which emits excessive hyper-localized PM 2.5 health harm to near neighbors. (requires legislation)

https://dnr.wisconsin.gov/about/wcc/2023_Resolutions

PM2.5 from wood burning is not mentioned in this excerpt from the Wisconsin DNR, although the PM2.5 emitted by wood burning surpasses that of coal burning. There are approximately 11 Environmental Protection Agency (E P A) standard \$100,000 PM2.5 monitors in the state of Wisconsin. There are approximately 55 PurpleAir \$249 PM2.5 laser monitors in the state of Wisconsin, correlated to E P A monitors with a simple mathematical formula with data from both kinds of PM2.5 monitors placed side by side on U S E P A Airnow Maps of Smoke and Fire for the State of Wisconsin. <https://fire.airnow.gov/>



The Wisconsin DNR interactive map for 2022 PM2.5 “safe” levels, found at <https://storymaps.arcgis.com/stories/145881003c0c467eb2783cfe2ef00fc5>

shows levels up to 6 micrograms per meter cubed were measured in around one quarter of Wisconsin. The national Environmental Protection Agency annual current “safe” level is up to 12 micrograms per meter cubed. E P A hearings were held in February 2023 where commenters overwhelmingly requested that the E P A lower the “safe” limit for annual PM2.5 levels to 9 micrograms per meter cubed. [Videos](#)

<https://www.youtube.com/watch?v=s9B5b51z7pY> February 21, 2023, Recording, 8 hours

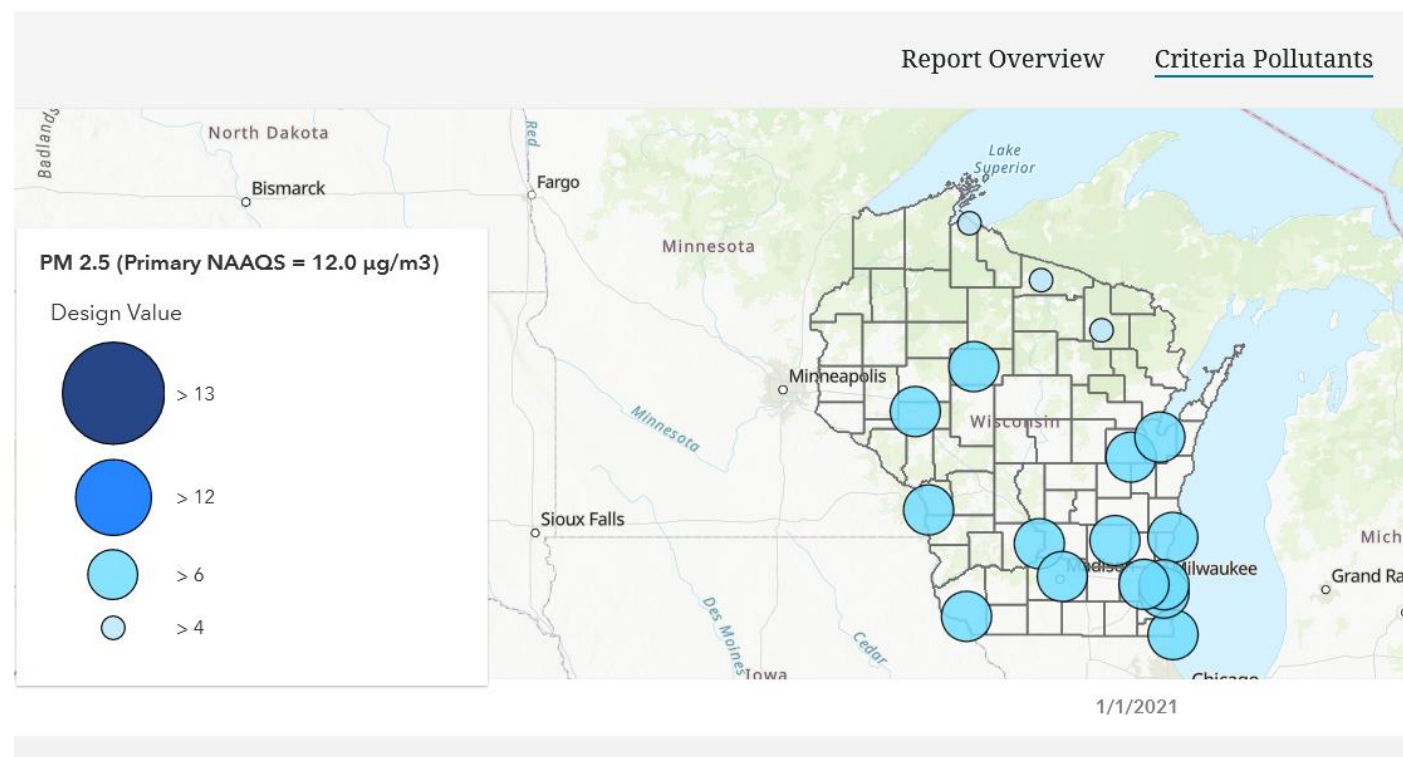
<https://www.youtube.com/watch?v=crzJ1g8aCKI> February 22, 2023, Recording, 8 hours

<https://www.youtube.com/watch?v=GlfHXXeiVew> February 23, 2023, Recording, 8 hours

[Youtube recordings of EPA Testimony about PM2.5 on 2/21/2023, 2/22/2023 and 2/23/2023 CST 10 AM to 6 PM](#)

From the Wisconsin DNR website “PM 2.5 is composed of inhalable particles with a diameter of 2.5 micrometers and smaller making the largest of these particles roughly 30 times smaller than the width of a human hair. The primary source of PM 2.5 is combustion such as [gas engines and coal and natural gas power plants](#). Since PM 2.5 is so small, these particles can make their way deep into the respiratory system and eventually into the bloodstream. Health effects associated with exposure to PM 2.5 include increased rates of respiratory diseases and depressed lung functionality.

Air Reporting System Updates – The web-based program, used by facilities across the state to submit Emissions Inventory (EI) Reports, was updated this year. The updates streamline the user experience, improve data quality, and increase the efficiency of inventory processing. The data submitted to this system is not only used to determine compliance with permitting requirements, but it also helps the DNR make informed policy decisions and provides an understanding of the total emissions in the state.”



Iceland, immigrant the United Kingdom brings wood burning pollution.

RAWSEP View: This Wikipedia article states that 70% of total energy used in Iceland comes from geothermal sources as of 2020. Geothermal energy use does not emit particulates, as wood burning for heat does.

https://en.wikipedia.org/wiki/Geothermal_power_in_Iceland

Wikipedia excerpts edited by RAWSEP for brevity and clarity and relationship to Residents Against Wood Smoke Emission Particulates. Geothermal power in Iceland.

[Geothermal power](#) in [Iceland](#) refers to the use of [geothermal energy](#) in [Iceland](#) for [electricity generation](#).

Iceland's uniquely active [geology](#) has led to natural conditions especially suitable for harnessing geothermal energy. Icelanders have long used geothermal energy for direct applications, such as heating homes and baths. The more recent, widespread adoption of geothermal energy as an [energy source](#) in Iceland was spawned by a need to stabilize energy prices and increase [energy independence](#), allowing Iceland to increase reliance on geothermal energy for direct applications alongside electricity generation and contributing significantly to diminishing Iceland's [carbon footprint](#).

The growth of geothermal power in Iceland is due to its continued support from the [Icelandic government](#).^[4] As of 2020, Iceland's installed geothermal power production capacity is 799 [megawatts](#) (MW). Geothermal energy produces over a quarter of Iceland's total electricity.

As Iceland is situated in a highly geothermal location, 70.38% of total energy used in the country comes from geothermal sources as of 2020. This means 173.2 [petajoules \(PJ\)](#) of the total 246.1 PJ of primary energy used by Iceland in 2020 is from a geothermal source. The geothermal energy is then used in two main ways: direct application and indirectly via electricity generation.

RAWSEP View: The economic argument for wood burning is not made in the article below. The woman from the United Kingdom came to a new country, and created a polluting, semi-mobile source of wood smoke pollution. She spent \$800 for a bus and \$36,000 to create a wood burning polluting bus.

[A woman bought a broken-down school bus in Iceland for \\$800 and spent 2 years and ...](#)

Business Insider Africa

The shop, open since 2020, has a wood-burning fireplace, a library, and seats and tables. ADVERTISEMENT. Recommended articles. I flew from Guatemala ...

A woman bought a broken-down school bus in Iceland for \$800 and spent 2 years and \$36,000 transforming it into a coffee shop. Take a look inside.

Asia London Palomba.

April 28, 2023.

Excerpts edited by RAWSEP for brevity and clarity and relationship to Residents Against Wood Smoke Emission Particulates.

In 2018, an immigrant from the United Kingdom (U K) purchased a broken school bus in Iceland and transformed it into a coffee shop with a library and indoor fireplace. She spent two years and \$36,000 transforming a school bus into a coffee shop in Iceland. After moving to Iceland from the UK, she bought an old school bus for \$800. The shop has been open since 2020.

United Kingdom

U K, Selby, Drax wood burning plant

RAWSEP View: If the U K government only provides guidance to, instead of regulation of, wood burning power plants, then PM2.5 and CO2 pollution will continue, and will continue not to be counted, hastening climate change. The Environmental Campaigners mentioned in the article only speak about destruction of forests, not the pollution from wood burning. Drax pushes the idea that Carbon capture is the answer to questions about pollution, but Carbon Capture is expensive and doesn't work. Not burning wood in the first place prevents pollution.

<https://www.thetimes.co.uk/article/ff0827a8-e50d-11ed-92e1-c61d17e3691f?shareToken=cd4c21a2aca17a9b8bf74bb9dd0b90fc&fbclid>

RAWSEP View: The article below does not address the health impacts of PM2.5 particulate matter of 2.5 micrometer size, emitted when wood is burned. Wood smoke is 90% PM2.5, particulate matter of the perfect size to infiltrate the human lung, setting off a cascade of human health problems.



Drax's idea of Carbon Capture is to "take trees and biomass that have absorbed carbon while growing, burn them to generate electricity, and then capture the resulting carbon emissions for storage below the bedrock of the North Sea." Like previous attempts at Carbon Capture this seems expensive and futile, with unknown implications for the bedrock of the North Sea.

With Carbon Capture, Drax is negotiating with the U K government for further subsidies, in addition to the current subsidies Drax receives for burning wood which is now designated as renewable and now considered Carbon Neutral.

Further, the U K government is considering relaxing rules around biomass, considering making them guidance rather than environmentally protective laws. The breaking news in the article below is that "Slides in a presentation by the U K Department for Energy Security and Net Zero show that officials are considering making criteria for the biomass sustainability of new projects guidance rather than legally binding. The document from last month, which was marked "official sensitive", shows three options being proposed to ensure that trees and other biomass companies source is sustainable." "One is a guidance document, which could take two years to establish. The second is legislation, taking up to five years. The third is guidance followed by law further down the line. The guidance-only route would mark a significant break from today's law-based approach, environmental campaigners said.

A senior advocate at the Natural Resources Defense Council (NDRC), an environmental advocacy group based in New The NDRC advocate said: "Making these standards voluntary would mean signing a blank cheque — paid for by people's energy bills — for these companies to burn trees. And in return they're happy to ask for no assurances that wildlife and forests aren't destroyed in the process."

Biomass (wood) burning (called sustainable bioenergy because it is considered Carbon Neutral and so Drax's wood burning PM2.5 or CO2 emissions are not counted in the pollution summation required as a yardstick of meeting U K's Climate Goals) is "essential" if the UK is to meet its net zero goals, (because by not counting biomass (wood) burning the U K can by this ignorance meet its Climate Goals). Experts anticipate more use of biomass, if these emissions continue to not be counted.

The government has not yet taken a final decision on sustainable biomass. A strategy is due from the Department for Energy Security and Net Zero by the end of June.



RAWSEP believes that wood should not be burning in the first place, and instead wood burning power should be replaced by wind, solar or geothermal power, which are such cost-effective sources of energy that they require no government subsidies to be economically viable, unlike wood burning. Money for biomass burning subsidies could be better put into helping start the economically practical industries of wind, solar and geothermal power plants in the United Kingdom.

Leaked paper reveals government proposal to relax rules around burning biomass.

Sustainability laws protecting crops and forests used to generate electricity could be changed simply to 'guidance'.

April 27, 2023. The Times.

Excerpts edited by RAWSEP for brevity and clarity and relationship to Residents Against Wood Smoke Emission Particulates.

Drax burns wood pellets from the US and Canada, to supply 6 per cent of the UK's electricity.

Leaked documents show the government is considering having no legal requirement to ensure new energy projects that intend to use trees and crops as fuel do not harm the environment.

Campaigners said relying on guidance for the sustainability of biomass, instead of legislation, risked the destruction of important forests and wildlife.

This week Drax completed a switchover from coal to "sustainable biomass".

Questions have been raised about Drax's wood pellet sources after a BBC Panorama team tracked biomass used by Drax to clearance of an old forest in British Columbia, Canada. Energy regulator Ofgem has launched a probe into the firm's compliance with sustainability rules, which are enshrined in legislation.

Today biomass in the UK is mostly only used for generating electricity, with a smaller amount used to produce heat and create transport fuels.

Drax wants to expand its use of biomass by building a pioneering new power station that could be considered "carbon negative" because it reduces the net amount of carbon in the atmosphere using a carbon capture and storage (BECCS) plant.

Drax receive subsidies for electricity generation. The company is negotiating with the government for incentives for its mooted (Carbon Capture) BECCS plant.

Drax expects most wood pellets to come from North America.

Under the government's guidance-only proposal, Drax's BECCs scheme would face a weaker regulatory environment.

Selaine Saxby, Conservative MP for North Devon, said: "With the public increasingly concerned about the environmental impact of burning wood for electricity, we must strengthen sustainability criteria to ensure we don't fuel deforestation while reviewing the future of bioenergy in Britain. The government should use this review to reassure the public by toughening up sustainability rules."

A Drax spokeswoman said: "Drax supports robust government policy and legislation, backed up by extensive third-party verification."

A government spokesman said: "(the U K will be) strengthening our already strict criteria where required. The biomass strategy will present further detail on this area."

