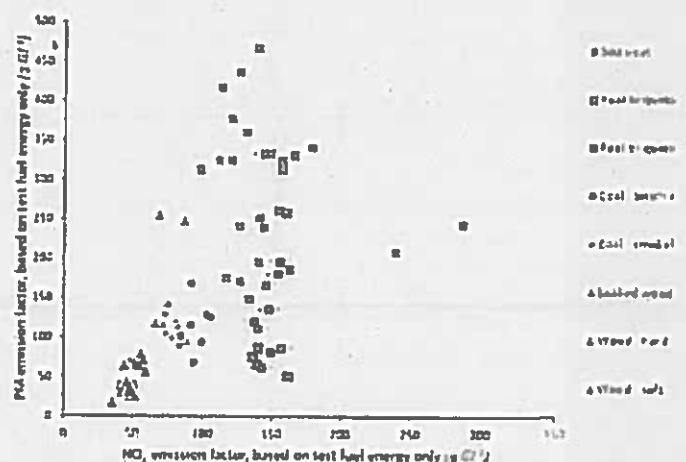


Public Consultation on The Development of New Solid Fuel Regulations for Ireland

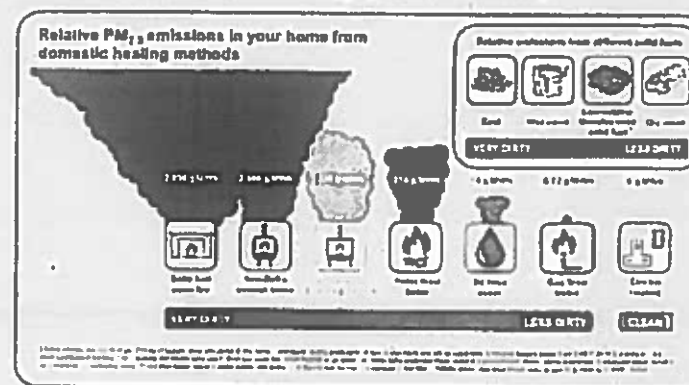
- Solid fuel is the source of home heating for a large amount of Ireland's homes. It is used by many low-income households who are dependent on it to heat their homes affordably, and it is also used by many mid/high income households who want to see a flame.
- The government's National Air Pollution Control Programme Report states that "*Combustion of bituminous coal, other coal products (such as manufactured ovoids and anthracite), wood and peat in the residential sector is a significant source of harmful toxic emissions to air, including PM2.5*". This statement directly quoted from the NAPCP and echoed during the Virtual Town Hall meetings associated with this public consultation is not sufficiently nuanced. A distinction must be made between wet wood and dry wood. Dry wood is a clean burning solid fuel that does not contribute significantly to PM2.5 emissions, and can reduce carbon emissions by replacing these dirty solid fuels. It should not be included among dirty solid fuels (coal/peat/wet firewood) and as such, it is imperative that government make it clear that dry firewood's use is positive and it should be encouraged.
- The burning of fossil fuels (coal and peat) releases a large amount of CO2 which greatly increases GHG emissions, and is counter to our environmental responsibilities as an EU member state and the overall objective of preventing climate catastrophe. From an air quality perspective, these fossil fuels produce large amounts of PM2.5 emissions when burned which has an adverse effect on public health, leading to >1000 premature deaths per year. Banning these particular solid fuels would result in a massive reduction in Ireland's carbon emissions and PM2.5 emissions, greatly improving air quality and public health.
- Wet firewood (firewood that is above 25% moisture) produces a large amount of CO2 emissions but it produces a large amount of PM2.5 emissions when burned. Hence, a move to ban wet firewood would reduce PM2.5 emissions and improve air quality.
- Dry firewood is quite different. When dirty solid fuels (coal/peat/wet firewood) are replaced with dry firewood, PM2.5 emissions are reduced by 70-90%.<sup>1</sup> Dry firewood also contains more heat and burns with greater efficiency, and as a result, is much better value for consumers.

EFDOSOF Project Report



<sup>1</sup> W.J Smith and C. Quinn, EPA Research Report No.324, Emissions Factors from Domestic-scale Solid-fuel Appliances (EFDOSOF)  
<https://www.epa.ie/researchandeducation/research/researchpublications/researchreports/research324.html>

- Lack of regulation is a significant challenge in the firewood industry. There is a lot of inferior, sub-standard wet firewood out on the market and this is often firewood that was growing as a tree yesterday. The burning of sub-standard wet firewood is unnecessarily contributing to poor air quality, so if wet firewood is eliminated, air quality is significantly improved. This was highlighted in the EPA's EFDOSOF Project Report stating that, "the moisture content of wood fuels has a significant bearing on both the emission intensity and the efficiency of the combustion process. This report recommends considering the regulation of fuel quality for commercially traded wood fuels".<sup>2</sup>
- A sensible firewood market regulation proposal has been put forward by the Irish Bioenergy Association (IrBEA) to the DECC. Under this proposal, ISO 17225-5 would become mandatory for all firewood producers. The proposal outlines a two-phase strategy whereby a maximum moisture content requirement of 25% would come into force on 1 Sep 2021, with the requirement moving to 20% max moisture content on 1 Jan 2023. Decision makers should adopt this proposal in a timely fashion as it will eliminate wet firewood and significantly improve air quality.
- Not only should dry firewood be allowed, but it should be encouraged. The move to ban coal, peat and wet firewood can only come into force if there is an alternative, otherwise fuel poverty will increase exponentially. It was estimated in 2015 that 2,800 deaths occurred annually across Ireland due to inadequate heating.<sup>3</sup> Thus, it is critical to also address this issue alongside the estimated 1,300 air pollution related deaths.
- Dry firewood can fill this gap and deliver PM<sub>2.5</sub> emissions reductions in the order of 70-90%. Hence a Domestic Support Scheme for Renewable Heat (D-SSRH) should be considered. Under this proposed scheme, homeowners would receive an incentive to burn dry, certified firewood. After a certain period, the homeowner would be required to install an EcoDesign stove. This scheme therefore would modernise home-heating appliances via encouraging the installation of these EcoDesign, low emission, clean-burning stoves over a 3-5 year timeframe.
- The modernisation of current appliances would lead to a further PM<sub>2.5</sub> emissions reduction of 70-90%.<sup>4</sup> To my knowledge, no other plan or strategy has delivered this level of PM emissions reductions over such a short period of time.



<sup>2</sup> See note 1.

<sup>3</sup> A. Zeka, S. Browne, The association of cold weather and all-cause and cause-specific mortality in the island of Ireland between 1984 and 2007 - <https://ehjournal.biomedcentral.com/articles/10.1186/1476-069X-13-104>

<sup>4</sup> DEFRA, Clean Air Strategy 2018 Consultation, pg. 51. See also AIRUSE Project which also demonstrates 70-90% reduction when switching from fireplace/woodstove to an EcoDesign stove ([http://airuse.eu/wp-content/uploads/2013/11/R27\\_AIRUSE-TechGuide-biomass-burning-emissions-reduction.pdf](http://airuse.eu/wp-content/uploads/2013/11/R27_AIRUSE-TechGuide-biomass-burning-emissions-reduction.pdf))

- The benefits of such a scheme are significant and far-reaching. It is win-win for Ireland's obligations to improve air quality and reduce carbon emissions and Ireland's economy. Air quality would be significantly improved via encouraging the homeowner to switch from highly-polluting dirty solid fuels (coal/peat/wet firewood) to clean burning dry firewood, coupled with encouraging them to modernise their appliances to reduce PM 2.5 emissions further. Carbon emissions from the domestic heating sector would be massively reduced via elimination of fossil fuels, which are accountable for the lion's share of GHG emissions. By utilizing our own indigenous supply of biomass instead of importing our home heating fuels, we will keep that money in the Irish economy. According to the Western Development Commission, 1000T of firewood leaves a quarter of a million euro in the Irish economy. The same usage of oil leaves a mere €15,000.
- Allowing and encouraging dry firewood use is absolutely essential if coal/turf/wet firewood are to be banned within the next few years. As outlined, if government take these products off the market, something must fill the gap left and dry indigenous firewood can fill this gap. If the gap is not filled, fuel poverty and associated deaths will increase greatly. Addressing fuel poverty is critical for a just transition, and to address wider social justice.
- This strategy makes homeowners part of the energy transition – it disincentivises the use of dirty solid fuels by making them aware of their emissions, while providing a carrot that rewards them directly for switching to cleaner heating that is gentle on the environment. As demonstrated by efforts overseas in the UK/USA, consumer education is a massive part of any policy to encourage consumers to switch to cleaner heating and government/local authorities play the key role in informing the public. The adoption of a firewood market regulation proposal/a Domestic SSRH must include a public awareness strategy so consumers are empowered to make the right decisions.
- This strategy has been inspired by the EU model of carrot, stick and tambourine where we 1. Incentivise people to do the right thing, 2. Discourage them from doing the wrong thing and 3. We advertise the benefits of doing the right thing. This has been a very successful strategy in Europe where high levels of biomass use has been successfully achieved (e.g. Austria).

In an ideal world, we'd burn nothing. However legislators need to bring the people with them. Fuel poverty, lack of finance and poorly insulated old housing stock are realities, so the idea that everyone will be able to afford to install a heat pump/deep retrofit their home is not realistic. We mustn't overlook biomass as a means of growing our sources of renewable energy. It has a key role to play in improving air quality and decarbonising our domestic sector.

It is vital that legislators do not alienate these marginalised homeowners as such course of action could result in protests such as those seen in France with the Gilets jaunes, and throughout Ireland during the Irish Water debacle. Banning all solid fuels would be a guaranteed recipe for these protests. Specifically here, the perfect solution to decarbonising domestic heat is 100% electrified heat generated from 100% renewable electricity. But currently, not all electricity is 100% renewable and not everyone can afford a heat pump or to retrofit their home. We must be practical and pragmatic and not overlook biomass. We need to continue to scale up bioenergy's role. Let us not allow perfection to be the enemy of the good.

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Cotter Bros Firewood is a firewood producer based in [REDACTED] owned and run by brothers [REDACTED]. We are members of the Wood Fuel Quality Assurance scheme and the business is based on supplying high-quality firewood to the domestic sector. That is firewood that is Dry (under 25% moisture content), certified by the WFQA and produced in conformity with international ISO standards.

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For further information/clarification contact [REDACTED]

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