



Geothermal Consultation
Geoscience Policy Division
Department of the Environment, Climate and Communications
29-31 Adelaide Road
Dublin, D02 X285
Ireland

24th February 2022

**Consultation on the Draft Policy Statement on Geothermal Energy for a Circular Economy
and associated SEA Environmental Report and AA Natura Impact Statement**

Public Consultation:

<https://www.gov.ie/en/consultation/d07f7-consultation-on-the-draft-policy-statement-on-geothermal-energy-for-a-circular-economy-and-associated-sea-environmental-report-and-aa-natura-impact-statement/>

Deadline: 5:30pm on Tuesday 1st March 2022



Dear Sir/ Madam

Note that there are 3 pages in total to this submission inclusive of the cover page.

Yours Sincerely,



SUBMISSION – from previous

1. Firstly, we welcome the fact the department are finally advancing a legislative framework to facilitate geothermal energy. This is long overdue. Unlike wind and solar which only offer intermittent forms of energy, conversely geothermal offers a means of providing a constant source of energy.
2. Furthermore the resources required to facilitate geothermal energy are far less that that required to put solar and wind systems in place. Furthermore it is not visually obtrusive as installations such as gigantic industrial wind turbines. We are alarmed at the current drive to put wind and solar in place. This is considered a scandalous waste of resources. Given the windless summer, which we just had in 2021, it should be a catalyst to put sustainable constant sources of energy in place.

3. We ask the department to quickly expedite the process with a view to putting a geothermal framework in place as a matter of urgency. The absence of Geo-thermal as an option in practical terms and also as part of the **RESS** means that only Wind and Solar are supported. This is in turn giving rise to inappropriate development proposals and is putting enormous and unnecessary pressure on communities across the country. Moreover both wind and solar are both unsustainable intermittent sources of energy and should not be supported in the manor in which they have. The state has being backing the wrong horse. The wastage of finite resources in these sources of energy is lamentable.

4. We fully concur and endorse the sentiments stated on page 11 which sate: -

'Geothermal energy is a local, secure form of energy that is not reliant on weather conditions, daylight hours or external market forces. It has proven to be very economical over the lifetime of a project, particularly for large-scale projects. Geothermal energy is zero carbon at source, although some carbon footprint may be associated with geothermal energy resources due to the methods of capturing or harnessing the geothermal heat. Geothermal energy can displace fossil fuels in heating and electricity generation schemes with significant CO₂ savings, and with the additional benefit of clean air. Geothermal energy systems are largely underground, and are thus invisible and unobtrusive, and require a small land footprint.'

5. There is too much information in this consultation for anyone in a voluntary / unpaid capacity to review in any great depth. Notwithstanding we had a fleeting look at the Draft Policy Statement.

6. This is long overdue and we commend the Department for finally taking this to a policy document and recommend that it is quickly followed up with enabling legislation and that it is included in the **RESS** scheme. This is vitally important as we are seeing a plethora of wholly inappropriate developer led wind and solar instillations across the country in recent times. Unlike geothermal, which is constant and reliable, both wind and solar are intermitted forms of energy.

7. We further draw your attention to the Eden Project in Cornwall where a closed loop geothermal plant is currently under construction. Please see: <https://www.edenproject.com/mission/our-projects/eden-geothermal-energy-project>
8. We note a reference in the document to Lady's Well in Mallow, Co. Cork. There, waters of approximately 21 °C are used to heat a public swimming pool.

OWNERSHIP

9. We have concerns about the ownership of Geothermal Energy, which is alluded to in a short paragraph at 6.2. This will need further clarity to ensure that ownership is not in conflict with a persons private property rights under the Irish Constitution.

DEVELOPER LED

10. The current regime in so far as it relates to Wind and Solar is Developer led rather than plan led. This is unsatisfactory, as developers are part of a bigger capitalist system, which is focused primarily on profit. In short there should be a top down state led focus and we would urge the department to implement a top down policy regarding Geo-thermal energy.

SUSTAINABILITY / POTENTIAL

11. In Ireland a fault line stretching from Limerick to Louth [the Caledonian fault line] exists. This is where two tectonic plates collided many millions of years ago. All along this fault line there are numerous mines; Silver Mines, Lisheen Mines, Galmoy Mines and Tara Mines in County Meath being perhaps the most notable. Indeed we understand that Tara mines have significant data on the temperatures/ underground rock formations, which can help inform research into Deep-bore geothermal energy. Kentstown Rock Formation is ideally suited for some type of deep-bore geothermal energy and we know that this lies beneath this mine. Moreover there are numerous 'hot springs' all along this line and there is in fact a townland near Enfield, County Meath known as 'Hotwell'. At times of significant rainfall events, water comes up boreholes at c.22°C, such is the geothermal activity beneath. There is enormous potential for geothermal energy on the island of Ireland given the bedrock and geological structure of the landmass.

DEEP BORE GEOTHERMAL

12. Deep-bore Geothermal Energy is essentially 'free' energy contained within the earth's crust. Briefly, it entails boring 2 boreholes to depths of between 2 and 3 miles. It is dependant on the existence of a particular type of rock to conduct water from A to B. It can also be facilitated by way of a dual core pipe (single pipe). The water coming back up is superheated to temperatures of between 100°C and 200°C. A modest enough plant is all that is required on the surface to convert the energy into electricity. There are many examples around Paris, Austria, Germany, Iceland and so on. There is comparatively small investment in this energy when compared with that required to site a wind turbine. It should be noted that Heat production by surface geothermal energy represents three quarters of the energy produced in France by geothermal energy.
13. The ADVANTAGES of Deep Geothermal over Wind are many and may be summarised as follows: -
 - a. Utilization of the knowledge built up by the mining sector.
 - b. no visually obtrusive issues,
 - c. no property devaluation,
 - d. no health issues,
 - e. no fluctuations in the availability of energy,
 - f. no spinning reserve (backup) requirement,
 - g. no wastage of finite natural resources such as sand and gravel, steel and so fourth.
 - h. There are numerous suitable geological bedrock areas in Ireland.
14. We are highlighting Geothermal because whatever resources are required to put it in place are far better invested in this in that this is a form of constant energy as opposed to intermittent energy from Wind and Solar. We know from our extensive research that wind and solar are essentially white elephants and little more than a vanity exercise, which has not been properly thought out. They are only feasible when sustained by lucrative grant assistance, which in itself should be sounding alarm bells. To make matters worse, wind and solar are extremely resource hungry of finite resources. It is a scandal that these have been pursued for so long given their inefficiency together with the devastating impacts on the landscape and the divisive impact on local communities.
15. It is essential that natural resources be conserved for the generations to come. Otherwise where will they source resources' if our generation keeps on plundering them at the current scale? Real sustainable and non-intermittent sources of energy such as Geothermal should be prioritised over wind and solar.

ENDS