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Geothermal Consultation
Geoscience Policy Division
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29-31 Adelaide Road
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1st March 2022

Our Ref: SCP211002.2

Re: Draft Policy Statement on Geothermal Energy for a Circular Economy and associated SEA Environmental Report

Dear Sir/Madam,

We acknowledge your notice, dated 28th December 2021, in relation to the *Draft Policy Statement on Geothermal Energy for a Circular Economy* (the 'Policy Statement' and associated SEA Environmental Report (the 'SEA ER')). This submission is comprised of three parts, a covering letter and two appendices addressing specific comments on the policy statement itself and the SEA environmental report.

The EPA is a designated statutory environmental authority under the SEA legislation. In our role as an SEA environmental authority, we focus on promoting the full and transparent integration of the findings of the Environmental Assessment into the Plan and advocating that the key environmental challenges for Ireland are addressed as relevant and appropriate to the plan. Our functions as an SEA environmental authority do not include approving or enforcing SEAs or plans.

General Comments on the Policy Statement

We note that the Policy Statement aims to ensure a robust and transparent regulatory framework is established in a manner that supports environmentally sustainable development of geothermal energy into the future.



Regarding climate change, last year the *Climate Change 2021 – The Physical Science Basis Summary for Policy Makers* report (IPCC, 2021)¹ highlighted the urgent need to continue increasing efforts to decarbonise our societies and our economies. This is needed to avoid the potential worst impacts of climate change. In this context, the Policy Statement recognises the role that geothermal energy can play in reducing our reliance on greenhouse gases. In implementing the Policy Statement, a commitment should be made to ensure that the relevant actions of the Climate Action Plan 2021 and the relevant commitments from COP26 are taken into account.

We would welcome if implementation of the Policy Statement could be accompanied by a code of practice or statutory guidelines to help manage the development of geothermal energy into the future.

The Department of Environment, Climate and Communications (DECC) should also ensure that the Policy Statement aligns with key relevant higher-level plans and programmes and is consistent with the relevant national level objectives and policy commitments.

DECC should also ensure that the Policy Statement aligns with key relevant higher-level plans and programmes and is consistent with the relevant objectives and policy commitments of the National Planning Framework and the Regional Spatial and Economic Strategies for any projects that may arise from implementing the Policy Statement.

Future Amendments to the Policy Statement

You should screen any future amendments to the Policy Statement for likely significant effects, using the same method of assessment applied in the “environmental assessment” of the Policy Statement.

SEA Statement – “Information on the Decision”

Once the Policy Statement is adopted, you should prepare a SEA Statement that summarises:

- How environmental considerations have been integrated into the Policy Statement;
- How the Environmental Report, submissions, observations and consultations have been taken into account during the preparation of the Policy Statement;
- The reasons for choosing the Policy Statement adopted in the light of other reasonable alternatives dealt with; and,
- The measures decided upon to monitor the significant environmental effects of implementation of the Policy Statement.

You should send a copy of the SEA Statement with the above information to any environmental authority consulted during the SEA process.

¹ https://www.ipcc.ch/report/ar6/wg1/downloads/report/IPCC_AR6_WGI_SPM.pdf



Guidance on preparing SEA Statements is available on the EPA website at the following link: <https://www.epa.ie/publications/research/environmental-technologies/research-306-guidance.php>

Environmental Authorities

Under the SEA Regulations, you should consult with:

- Environmental Protection Agency;
- Minister for Housing, Local Government and Heritage;
- Minister for Environment, Climate and Communications; and
- Minister for Agriculture, Food and the Marine.

If you have any queries or need further information in relation to this submission, please contact me directly. I would be grateful if you could send an email confirming receipt of this submission to: sea@epa.ie.

Yours Sincerely,

A handwritten signature in blue ink that reads "Brian Donlon".

Dr. Brian Donlon
Senior Manager
Office of Evidence and Assessment



Appendix I – Specific Comments on the Policy Statement

General Comments

Clarification should be provided regarding the ownership of energy produced from geothermal energy developments/activities. It would be useful to clarify if thresholds will be established which will limit the States ownership, such as in the case of small-scale energy production (e.g small scale closed loop systems operating at household level for example). We suggest that consideration regarding thresholds for energy ownership could be included, where appropriate.

We would welcome if implementation of the Policy Statement could be accompanied by a code of practice or statutory guidelines to help manage the development of geothermal energy into the future.

While it is intended that no reviews of the Policy Statement are proposed, we suggest that including an objective to prepare Geothermal Energy Guidelines, with regular review periods be considered. This would align with the fourth key element of the Policy Statement which is “*Integrate with existing in environmental, health and safety and planning regulatory frameworks*”.

This would provide an opportunity for the latest advancements in renewable energy technology and potential associated environmental issues and challenges to be considered into the future. It would also provide a means for which broader national environmental challenges and commitments or updates to environmental policy at national or European level could continue to inform projects. Guidelines would also help coordinate the appropriate consideration of linkages with other subsurface practices such as groundwater abstraction or mineral exploration and mining for example.

We also bring to your attention EPA Guidance on the [Tiering of environmental assessments – The influence of Strategic Environmental Assessment on Project level Environmental Impact Assessment](#) (EPA, 2021), that may offer useful guidance in terms of future projects that may arise from the policy statement and how their environmental assessments could be linked with this SEA.

Section 5.4 – Geothermal Projects and Regulation

We acknowledge that the Policy Statement recognises that different types of geothermal energy projects may have different potential environmental impacts, and as such the Policy Statement needs to respond to those in a proportionate manner.

With regards the description on p21, that “*For shallow, open loop systems, potential negative impacts on groundwater and surface water could be addressed by making sure any water abstraction is registered with the Environmental Protection Agency and action taken according to their thresholds...*”, where reference is made to “*could be addressed*”, it would be useful to clarify this aspect with regards to the abstraction regulatory regime requirements. Activities involved in the abstraction of water would need to be registered with the EPA and take account of abstraction related thresholds that apply.



In *Section 6.1 Environmental Protection and Geothermal Energy*, we suggest that reference should be made to other relevant EU directives also, such as the Water Framework Directive.

In Section 6.6.1 – Geothermal Energy Exploration Licence (GEEL), on page 28, where reference is made to “*Other regulatory authorities assess activities that have impacts within their areas of responsibility, such as the environment, planning and health and safety*” in subsection on *Consents for Activities under GEEL* and the associated *Figure 5.1 – The types of consents/permits that may be required under a GEEL*, it would be useful to refer to the relevant aspects of the EPA licensing regime to be reflected in the process, as appropriate.



Appendix II – Specific Comments on the SEA Environmental Report

In *Table 5.1 – Summary assessment and future outlook for selected environmental policy areas and relevance to the draft Policy Statement*, we note the inclusion of selected relevant policy areas of relevance to the Policy Statement and acknowledge the information included which shows how these policy areas relate to the Policy Statement.

We also acknowledge that the EPA funded Environmental Sensitivity Mapping Webtool, (www.enviromap.ie) has been considered in the SEA. It may be helpful to identify areas of overlapping sensitivity to inform any further assessment or monitoring requirements for proposed geothermal energy projects that may arise out of the Policy Statement.

Chapter 6 – Framework for Assessment

We acknowledge the Strategic Environmental Objectives selected in the SEA, as shown in *Table 6.1*. We also welcome the inclusion of a column linking those environmental objectives to the UN SDGs.

Chapter 7 – Consideration of Alternatives & Chapter 8 – Assessment of Preferred Scenario

We acknowledge the approach taken in considering alternatives and in selecting the preferred suite of alternatives chosen, as described in detail in *Chapter 7*. We welcome that the EPA SEA guidance note on ‘*Developing and Assessing Alternatives in Strategic Environmental Assessment*’ (EPA, 2015) has been considered during this process.

In *Section 8.2 – Assessment of Geothermal Energy Project Archetypes*, and the related *Tables 8.1*, we welcome the summary of the typical environmental impacts common to most geothermal project types. These are the type of issues that could inform the preparation of a Code of Practice or Statutory Guidelines to support both the industry and regulation of the industry, as referred to in *Appendix I*.

We note the proposed mitigation measures and recommendations presented in *Section 8*. These should be integrated and taken into account in the Policy Statement and in implementing the Policy Statement.

Chapter 9 – Mitigation and Monitoring

Where the potential for likely significant effects has been identified, appropriate mitigation measures should be included to avoid or minimise these. The Policy Statement should include clear commitments to implement the mitigation measures.

We welcome the proposed mitigation measures as set out in *Table 9.1*, regarding the recommendation for additional guidance and best practice to support this policy statement and how to coordinate overall protection of the environment. We recommend that in finalising the Policy Statement, the recommendations of the environmental assessment processes are integrated into the Policy Statement.

We note that *Section 9.2 – Monitoring* discusses the environmental monitoring related aspects and we acknowledge the proposed SEA monitoring programme as set out in *Table*



9.4. The Policy Statement implementation, monitoring and reporting should be aligned with the environmental monitoring and reporting required under the SEA legislation. This will assist in evaluating the environmental performance of the Policy Statement.

Article 10 of the SEA Directive states that the significant environmental effects of implementing a plan/programme shall be monitored in order, *inter alia*, to identify at an early stage unforeseen adverse effects and to be able to undertake appropriate remedial action. A comprehensive monitoring programme alongside the Policy Statement could prove to be particularly useful in terms of filling data gaps, measuring indicators over time and monitoring the “real” effects of implementing the Policy Statement. Such information may also prove to be particularly useful for informing the development of future energy strategies in the transition away from fossil fuels.

This Monitoring Programme should be flexible enough to take account of specific environmental issues and unforeseen adverse impacts should they arise. The Monitoring Programme should also be adaptive in terms of changing environmental targets. It should consider and deal with the possibility of cumulative effects. Monitoring of both positive and negative effects should be considered. The monitoring programme should set out the various data sources, monitoring frequencies and responsibilities where possible.

Further to our submission at the scoping stage, the Policy Statement would benefit if the results of the SEA monitoring were reviewed periodically (e.g. at 2/3 year intervals). This would enable the environmental performance of the Policy Statement to be evaluated and would also provide for increased transparency during implementation. This will ensure that the effectiveness of the Policy Statement implementation and its environmental performance will continue to be taken into account.

If the monitoring identifies adverse impacts during the implementation of the Policy Statement, DECC should ensure that suitable and effective remedial action is taken.

Guidance on SEA-related monitoring is available on the EPA website at <https://www.epa.ie/publications/research/environmental-technologies/research-306-guidance.php>