Friends of the Earth

Response to EirGrid Public Consultation: *Shaping Our Electricity Future*

14 June, 2021

1) Introduction

1.1 Friends of the Earth Ireland is a community at the heart of the growing movement here for a just world with zero pollution. We are part of the world's largest grassroots environmental network, which celebrates its 50th anniversary in 2021. We campaign and build movement power to bring about the system change needed for a just world where people and nature thrive. Friends of the Earth supports people to come together to transform our world until social justice is the foundation of resilient and regenerative societies that flourish within the ecological limits of our one planet. We promote education and action for environmental sustainability and justice and focus on Ireland's response to the big environmental challenges of our time, including the climate emergency and the achievement of the Sustainable Development Goals. We are committed to joining forces with other organisations and networks, of diverse experiences and perspectives, to build our collective power. We support people and group working autonomously to connect their local work to the bigger national and international picture. We have particular experience in participatory education, campaign strategy, shaping public debate and driving policy change.

1.2 Friends of the Earth welcomes the opportunity to respond to this public consultation. A central theme of this response is that electricity grid expansion and impacts of different proposed approaches are fundamentally linked to other key energy policy challenges, most notably in terms of community and citizen energy and participation, data centre development, systems planning and energy security. We recognise that EirGrid does not have direct responsibility for all of these policy areas, **however we consider it is essential that EirGrid proactively engages on these related policy challenges and calls for coordinated action by relevant state authorities.** We welcome the opportunity to further engage directly with EirGrid, including as part of the National Advisory Committee

1.3 A fundamental element in ensuring the success of state climate action is citizen buy-in through long-term, inclusive and transparent public participation. We very much welcome EirGrid's approach in prioritising broad public participation and efforts to gather views of the public and stakeholders through online meetings, conferences and in the form of the individual and the group questionnaire. It is recognised that Covid has also made the process of public and stakeholder engagement more challenging. This positive focus on public participation should not be treated as a one-off endeavour and **EirGrid should continue to prioritise such public engagement measures as part of future planning and implementation** both to 2030 and beyond.

1.4 While the majority of this submission addresses EirGrid's proposals and climate and energy policies, Friends of the Earth is mindful that EirGrid's approaches must not only be informed by Ireland's climate obligations and necessary decarbonisation. Ireland has also declared a biodiversity emergency and environmental and sustainability impacts, as well as nature-based solutions, must be examined at an early stage. Choices related to technology, planning, construction and location under the differing approaches will raise differing environmental and sustainability challenges and opportunities. It is essential that **obligations relating to the delivery of Strategic Environmental Assessments, Environmental Impact Assessments, Appropriate Assessments and Ecological Assessments are respected**.

1.5 We welcome that environmental impact criterion is included as part of the consultation in the full technical report. However, it is unclear why this is information is not explicitly highlighted in all summary documentation and presentations. Further detail is necessary on how this criterion has been developed and applied and this information should be

provided as part of subsequent consultations and strategies. **An obligation should be included for all projects to meet mandatory sustainability criteria and to follow the 'do no harm' principle as set out in EU Green Deal policies.** We recommend that indicators are based on EU obligations on biodiversity protection and integrate Sustainable Development Goals targets and indicators. Friends of the Earth is also eager to facilitate discussions on these topics with other relevant NGOs and as part of the Environmental Pillar.

2) Community ownership and participation

2.1 The rollout of large-scale offshore wind and associated network infrastructure must be a shared societal project, rather than a developer-led project. In this regard, we agree with EirGrid that there are definite benefits to the proposed Generator and Demand-led approaches, whereby generators and large electricity users are directed where to locate. Equally we support a rejection of a status quo developer led-approach. However**, an absence of public participation and public ownership, risks fundamentally undermining not only EirGrid's network expansion but the state's wider energy transition**.

2.2 We welcome that EirGrid has examined the social impact of potential network reinforcements which are noted in the full technical report. However, **it is unclear how this criterion has been assessed and applied**. Again we would underline that this information should have been included in all summary documentation and presentations.

2.3 A key message of this submission is that the merits and acceptability of proposed approach(es) must not be merely informed by the renewables target, energy security, cost and infrastructure considerations. **Community participation and community ownership should be integrated as a central and ongoing priority which can enable and facilitate appropriate grid development.** This means that incentives and support for community and citizen energy should be developed and delivered as part of grid projects. We consider microgeneration and community generation to be the key important means of supporting energy democracy, citizen engagement and shared ownership. **This requires a coordinated planning and policy response between EirGrid, DECC, ESBN, the CRU and the SEAI.**

2.4 The significant challenges of grid connection and planning costs for smaller community energy projects should also be addressed and we support the ring-fencing of capacity for community generation. We appreciate that other elements of community energy policy, for example the RESS-1 scheme, is not the responsibility of EirGrid. However, **EirGrid does have a role to play in highlighting to relevant authorities the need for increased supports in subsequent support schemes**. We recommend that the 30Gwh preference category/1% of auction volume for community projects is increased in subsequent schemes.

2.5 **EirGrid scenario planning and energy security recommendations should take account of, and proactively support, increasing solar PV usage at community and domestic level**, particularly given that solar PV is currently the technology that is the cheapest and most easy to upscale. Friends of the Earth is particularly concerned that centrally-planned network development at transmission level, as well as increasing largescale renewable generation, may be entirely disconnected to significant restrictions at community and citizen level. For example regulations currently require planning permission for any solar panel installation on a homes or business that exceeds anything above an extremely small size and area. Planning permission is also required for all solar panel installations on educational or community buildings. The Department of Housing has repeatedly delayed reviews and updating of planning regulations since

2018 to address this situation. SEAI funding for solar panel installation can only be accessed by schools in very limited circumstance. **EirGrid should play a leadership role in ensuring that schools and communities are empowered and support the introduction of specific national targets and supports for microgeneration, in particular on school and community buildings**.

2.6 Again we recognise that microgeneration policy does not rest with EirGrid, however **EirGrid should not see itself as divorced from such policy questions. We recommend that targets are set to encourage widespread uptake in micro renewable electricity installations for 2025 and 2030.** These targets should focus on community, farm, business and public buildings in the first instance, and facilitate collective ownership of installations. We also note that there are restrictions in the microgeneration scheme as recently proposed by the Department (including in relation to the BER requirement, the export cap, installation size and smart meter requirement) which means the scheme will not adequately encourage or incentivise participation across Irish society. **EirGrid should be proactive in engaging both the Department and ESB Network and in calling for the removal of these restrictions**.

2.7 **Special attention needs to be given to support all demographics and economic backgrounds to participate in the energy transition.** It is important that in addition to network costs, potential increases and savings in electricity costs of different approaches for consumers are analysed and presented, with a particular focus on those already at risk of energy poverty. A cross-Government policy response is again necessary whereby efforts to mitigate energy poverty risks are integrated into EirGrid's strategy working with relevant state authorities. As noted by J.A. Kelly et al, '[g]*iven the scale of transitional changes required in energy use and heating systems across Europe over the next decade, it is vital that viable national policy interventions are not derailed by generic risks of energy poverty but, rather, that policy is supported in targeting complementary solutions*'.[1] Definitions/assessments of cost effectiveness should also take account of climate impacts and risks.

2.8 People who live in energy poverty are unlikely to have capital available to make an investment in microgeneration and retrofitting. Retrofitting programmes must focus on where there is greatest need and greatest co-benefits – this means prioritising retrofitting lower-income households and those at risk of fuel poverty and supporting retrofits of community buildings/schools which benefits a large group people and ensures greater public support. As recommended in the 2019 report of the Joint Oireachtas Committee on Climate Action, we support a policy where each local authority, individually or jointly, establishes a one-stop-shop with appropriate resources to provide expert advice on energy efficiency and renewable energy action and support renovation projects. This should include a strategy for reaching out to communities, in particular lower-income households. **This type of public-orientated measure to highlight and support the energy transition in and for communities is one such example of a targeted complementary initiative which should be supported as part of EirGrid's strategy**.

3) Demand-led Approach and Data Centre Demand

3.1 We recognise that a demand-led approach whereby Government ensure demand is located outside of the Dublin region and closer to renewable generation offers several

[1] J. Andrew Kelly, Peter Clinch L. Kelleher S. Shahab'Enabling a just transition: A composite indicator for assessing home-heating energy-poverty risk and the impact of environmental policy measures' Energy Policy, Vol 146, Nov 2020, 111791
https://www.sciencedirect.com/science/article/pii/S0301421520305127

benefits and may facilitate greater regional development. However, **the proposed expansion in electricity demand from data centres runs counter to climate obligations** and threatens the achievement of Programme for Government decarbonisation commitments.

3.2 Friends of the Earth has several concerns regarding the impact of such development on Ireland's climate and renewables objectives. **The planned growth in data centres is incompatible with the achievement of the 2030 51% emissions target to be established by the Climate (Amendment) Bill.** UCC MaREI analysis has indicated that projected data centre development will directly undermine necessary mitigation, resulting in a likely 40% emissions reduction instead of the at least 60% for the sector required if Ireland is to meet is overall 51% commitment, given the challenges in other sectors .

3.3 We have concerns that the ongoing policy incoherence around data centres may already be **adversely affecting the broader public understanding and perception of Ireland's decarbonisation objectives and EirGrid's role in facilitating this transition**. In terms of EirGrid's future consultation and ongoing public engagement, Friends of the Earth agrees that the public should be invited to address what is in the public interest in relation to current data centre policy.

3.4 The proposed expansion makes the goal of reaching 70% renewables by 2030 more complex and risks undermining wider public support for the energy transition. **This is particularly the case in the event that necessary changes in EirGrid's transmission system rollout and/or in the development of renewable generation become considered to be dominated, or led by, data centre interests**. The 2018 Government policy statement on the role of data centres in the enterprise strategy notably lacks any analysis of the future energy demand of data centres, nor does it include a climate impact assessment of data centres and is not line with Programme for Government decarbonisation commitments and climate objectives. The current system whereby data centres are given accelerated access to the planning system as they are designated 'strategic infrastructure' under the Planning and Development (Amendment) Act 2016 is also not fit for purpose. The Planning and Development Act should be amended accordingly.

3.5 Friends of Earth recognises that it is relevant Ministers, Departments and public authorities, including the CRU and IDA, who have primary responsibility regarding data centre development, that EirGrid itself has clear legal obligations regarding connection and network development, and that it is therefore not simply in EirGrid's gift to alter the current Government policy. However, **EirGrid has an important role in questioning the now outdated *Government Statement on The Role of Data Centres*** *in Ireland's Enterprise Strategy*, in particular as it does not take account of the 70% by 2030 target and more recent in developments in climate policy.

3.6 **We welcome EirGrid's proactive approach in engaging CRU regarding potential security supply challenges due to proposed data centre development**. We also welcome EirGrid's call for a change of approach regarding data centre development in the context of both energy security and the state's decarbonisation objectives.

3.7 We are aware that the CRU has launched a consultation to address electricity demand coming from data centres, with options including a moratorium on new data centre connections and new conditions for data centre connection. We note that CRU's consultation does not support the moratorium option and proposes prioritisation of data centre connections based on location and current constraints, availability of onsite generation and demand flexibility. Evidently this proposal and likely outcome of data

centres being located outside constrained areas around Dublin aligns with EirGrid's demand-led approach. Although the CRU supports this option, **it is important that the public is still given the opportunity to examine the implications of this approach and data centre development.** This is especially the case as the proposal will not impact data centres already connected.

3.8 In accordance with its legislative functions, the CRU assesses and decides upon data centre connection requirements in the context of safety, stability and security objectives and taking into account cost implications. It is unclear to what extent climate obligations to 2050, essentially requiring complete decarbonisation of the energy system, have formed part of the CRU's considerations or whether these will only be taken into account by the Department in the context of the energy security review**. EirGrid should raise the importance of coherence with climate objectives in future engagement on connection policy and generation capacity with the CRU.**

3.9 It is necessary to ensure that all data centre developments are reviewed and assessed in the context of climate and energy objectives and only approved where developments are found to be in fully in line with these objectives. **EirGrid should clarify in this regard what are the risks, including economic, climate and environmental impacts of increasing fossil gas generation and network infrastructure due to data centre demand**. New obligations are also necessary: renewable generation should be located on the same grid as the company's demand. This generation, including in the form of PPAs, should be new and additional, not merely replacing existing capacity and going beyond what would have occurred with existing policy targets or mandatory requirements for utilities.[2]

3.10 In order to guide and coordinate this approach, it is recommended that **EirGrid supports a new Government policy on data centres with a comprehensive suite of directions to the relevant public bodies.** This should include directions to (i) assess the emissions, environmental, network, planning and cost implications of proposed data centre developments in an early and integrated manner in accordance with climate and energy obligations (ii) ensure data centre demand is met through new and additional energy efficiency and renewables by the data centres themselves (iii) that associated network costs are not unduly passed to all consumers (iv) ensure community benefit rules under RESS are also applied to PPAs.

4) Assessment and Planning

4.1 We fully support EirGrid's pro-active role in both driving and facilitating decarbonisation of the electricity system and commend EirGrid's acknowledgement of the life-threatening risks of the climate crisis. However, it is important to note that the 70% renewable electricity target by 2030 and the state's net-zero 2050 target are not Paris-aligned. It is therefore important that **the 2030 70% renewable electricity and 51% mitigation target are not considered to be a ceiling**; as renewable penetration and grid development is progressed, necessary analysis should be carried out by EirGrid and other relevant authorities to provide for increases in this target, including 90% by 2030 and 100% by 2035. **Paris-compatible scenarios should be included in systems modelling in order to align with national and international commitments.**

4.2 We note that the generator and demand-led approaches are favoured by EirGrid given that they satisfy the assessment criteria to the greatest extent. We appreciate that for

[2] Greenpeace US 2020 'Oil in the Cloud' report in its recommendations for the tech sector

this public consultation it is necessary to present the main benefits and challenges that specific to the particular proposed approaches. However, given that EirGrid's strategy may entail some combination of approaches, it would be helpful to have **greater clarity on the interplay, links, sensitivities and inconsistencies between proposed approaches**. The necessary changes in government and regulatory policy should also be presented.

4.3 We note that the technology approach based on widespread usage of high-voltage DC underground electricity cables and associated converter stations presents several challenges and may therefore not be supported. However, it is important that the possible rejection of this approach does **not preclude underground options in specific instances**, in particular where its use in certain projects is found to present particular benefits for certain communities.

4.4 Electricity infrastructure planning must be transparent and free from any conflict of interest and be based on independently assessed data, scenarios and evaluation, including by the CRU. Energy infrastructure planning obviously needs not only to integrate the current minimum targets but also to anticipate the necessary increase in ambition levels towards the 1.5°C target of the Paris Agreement. We strongly recommend that EirGrid coordinates closely not only with Ervia/Gas Networks Ireland but also **with the Climate Change Advisory Council particularly in relation to measures to align with carbon budgets**.

4.5 We welcome EirGrid's recognition that integrated 'planning and operation of the energy system 'as a whole', across multiple energy carriers, infrastructures, and consumption sectors' is necessary. EirGrid should assessment should move beyond a limited generation adequacy approach and provide **an integrated assessment not only of existing infrastructure (electricity, gas, heat networks) but also of services such as demand response schemes and different storage technologies for electricity, gases and heat**. Modelling should explore more in depth how transmission grids could be eased by better matching renewable supply and demand on the distribution grid level.

4.6 Although sustainability reporting is not the subject of this consultation, **monitoring and reporting processes are significant and relevant in the context of public buy-in and ensuring proper transparency in relation to EirGrid's operations**, as well as progress and challenges in delivering proposed approach(es). We recommend that reporting includes the following elements and we welcome the opportunity to further engage with EirGrid on these areas:
- GHG emissions across all assets and entire value chain (Scope 1,2 and 3 emissions), including information on actions being taken to reduce absolute emissions in the context of sectoral targets (and carbon budgets);
-Climate risks including regarding potential stranded assets;
- Environmental indicators, particularly biodiversity protection;
- Progress against relevant SDG indicators in their annual/sustainability reports.

5) Fossil Gas Lock-in, Stranded Asset Risk & Energy Security

5.1 Friends of the Earth is particularly concerned with EirGrid directions that additional fossil gas generation is needed in order to meet higher demand and overcome generation capacity concerns. This is also true of requirements for data centres and other large users to build generators capable of continuous running for extended periods, including through new onsite fossil gas generation. As noted by EirGrid, infrastructure including for fossil gas generation that is supported today will impact citizens for next 50 years. We

are concerned that, while generation capacity concerns must rightly be assessed and addressed by EirGrid, **risks of fossil gas lock-in and potential for stranded assets have not been adequately addressed by relevant authorities**.

5.2 We recognise that fossil gas-fired generation will play a role in the medium term alongside increasing renewable generation. However, the consultation does not refer to the policy incoherence of potentially 4000MW of gas-fired generation being active on the electricity system post-2030 notwithstanding the need to achieve complete decarbonisation in the coming decades. **EirGrid's strategy should be clear that increasing gas-fired generation and associated emissions are not in accordance with Ireland's national and international climate obligations**.

5.3 EirGrid has rightly highlighted the current challenges posed by projected growth in energy demand, increasing levels of renewable generation, and the current insufficient volume of firm capacity. EirGrid has also noted that addition fossil gas generation will be required to ensure system security and to meet demand during periods of low renewable generation. **Energy security assessment should integrate climate obligations and planning must now integrate the state's ambition to reduce carbon emissions by 51 per cent by 2030.**

5.4 It is particularly important that EirGrid's **system assessment takes into account stranded asset risks in the context of fossil gas infrastructure**. In 2019 UCC, on behalf of the EPA, produced an in-depth study on how decarbonisation of the power system may undermine investment in energy generation and infrastructure. The research noted that '*in future scenarios with a tight top-down carbon constraint, difficult-to-reach projects with high capital costs, along with carbon-intensive reserves, face a high stranding risk'* [3].

5.5 The authors noted that an 80% reduction pathway indicated that the financial viability of gas generation and network assets is not guaranteed. They concluded that "*84% of a leading Irish utility's existing fossil fuel-based power generation assets may be incompatible with a 1.5 °C budget and 27% with a 2 °C budget*." The authors conclude that "***from a policy perspective, it is important that the market model and payments for energy, capacity and flexibility are designed to expedite the transition to zero carbon and are not sunk costs in fossil fuel generation and infrastructure.***"[4] UCC MaREI research has also underlined that greater mitigation efforts to reach climate targets may "*require[s] phasing out of fossil fuel based technologies before the end of their lifetime, creating stranded assets" such as gas-fired power station, as well as other economic losses*.[5] UCC MaREI research also points to significant challenges and risks in using the gas network to reduce emissions.[6] **As part of its strategy, EirGrid should assess and report on the risk of carbon lock-in and stranded assets**.

[3] EPA Research Report No 302, Fossil Fuel Lock-in in Ireland: How Much Value Is at Risk? (2015-CCRP-MS.27) Prepared by University College Cork (Authors: Celine McInerney, Conor Hickey, Paul Deane, Joseph Curtin and Brian Ó Gallachóir)
https://www.epa.ie/pubs/reports/research/climate/Research_Report_302.pdf
[4] Ibid
[5] Yue, X., Rogan, F., Glynn, J. & Ó Gallachóir, B. 2018 From 2 °C to 1.5 °C: How Ambitious Can Ireland Be? in Limiting Global Warming to Well Below 2 °C: Energy System Modelling and Policy Development 191–205 (Springer, Cham, 2018).
[6] Conor Hickey Paul Deane Celine McInerney Brian Ó Gallachóir 'Is there a future for the gas network in a low carbon energy system?' Energy Policy Volume 126, March 2019, Pages 480-493

5.6 It is not clear that the CRU has fully addressed risks of carbon lock-in through fossil gas investments. Where GNI's functions remain focused on expansion of pipeline infrastructure and where CRU's regulatory framework does not adequately respond to these challenges, it is open to question whether **GNI activities and investment may serve to actively undermine EirGrid's decarbonisation strategy and prioritisation of electrification of heat and transport.** The starting point in this regard should be to ensure that the mandates of GNI and other authorities (as detailed in Electricity Regulation Act 1999 and the Gas Act 1976) are amended. Friends of the Earth has analysed the objectives and functions of GNI, CRU (and the ESB) and put forward detailed recommendations in a 2020 research paper.[7]

5.7 We also note assertions by certain parties that additional gas generation may allow for greater emissions reductions given that such firm capacity may facilitate more renewable generation on the system. We have several reservations about such conclusions. It is not clear that market rules are sufficient to ensure that fossil gas generation would be limited and act purely as a backup. The use of such generation would, as noted above, be locked into the system for decades and ignores upstream fossil gas emissions. EirGrid's strategy should **outline how generation adequacy assessments will be updated to reflect the need to prevent carbon lock-in in accordance with climate commitments and address necessary limitations to new fossil gas generation.**

5.8 The Programme for Government recognises the risk of fossil fuel investment in the context of the finance sector. It notes stress tests will be required '*for financial institutions to look at the impact of tangible risks of higher temperature scenarios and involvement with the fossil-fuel economy on their portfolios*...' **This acknowledgement of the need for risk assessments in relation to fossil fuel investment, as well as EPA and UCC research, should inform EirGrid's deliberations as part of this consultation**.

5.9 **Gas supply and demand scenarios from Ervia/GNI must be thoroughly interrogated.** Ervia/GNI's current mandate to expand the gas network does not align with a medium-term gas phase out or longer-term need complete decarbonisation. GNI employs gas and electricity demand and supply scenarios and strategies which are highly dependent on the development of Carbon Capture and Storage facilities and biogas injection, notwithstanding the major risks and potential moral hazards associated with such developments. **EirGrid should ensure that GNI projections and assumptions of future gas demand are in accordance decarbonisation commitments and are interrogated in light of climate obligations before electricity system modelling is undertaken and published**.

5.10 It is important that **energy security is addressed in the context of a portfolio of both supply and demand responses**, as well as long-term and emergency measures, and short, medium and long-term challenges. Energy security benefits of increasing indigenous renewable electricity generation should also be recognised and examined, as recently highlighted in UCC MaREI research.[8] These issues are particularly pertinent to the energy security review currently being progressed by the Department.

5.11 The Programme for Government commitments to strengthen the policy framework to incentivise electricity storage and interconnection, and to plan further electricity interconnection in addition to the Celtic Interconnector, are fundamental to energy security considerations, as well as reliance on fossil gas and carbon lock-in risks. **Regarding storage, battery systems should be prioritised and supported ahead of**

[7] Friends of the Earth The Role of Public Bodies in Driving Ireland's Decarbonisation, 2020
[8] UCC MaREI for WEI Our Climate Neutral Future: Zeroby50 https://www.marei.ie/our-climate-neutral-future-zeroby50/

fossil gas generation in order to enhance energy security and provide necessary system services. EirGrid should set out plans to progressively increase battery systems and other zero carbon technologies as part of its strategy. We also support calls for EirGrid to provide information on CO2 emissions associated with system services from fossil gas generators.

5.12 Given the projected increases in electricity demand due to the electrification of heat and transport, as well as data centre demand, **demand side response should also incentivised ahead of fossil gas generation for system service and energy security needs**. New obligations should also be introduced to reduce consumption by major industry users with a particular focus on ensuring that efficiency gains are not taken up by new demand or rebound effects.
