



Friends of the Earth

**Response to Department of Environment, Climate and Communications
Consultation on EU TEN-E Regulation Proposal.**

17 February, 2021

1) Introduction

- 1.1 Friends of the Earth campaigns for environmental justice and sustainability. We believe in sustainable development - meeting the needs of the current generation without compromising the ability of future generations to meet their needs. Internationally, Friends of the Earth is the world's largest network of environmental groups with over one million supporters and campaigners organized in 70 countries. In Ireland, Friends of the Earth was launched in October 2004. We promote education and action for environmental sustainability and environmental justice and focus on Ireland's response to the big environmental challenges of our time such as climate change and energy.
- 1.2 Friends of the Earth welcomes the opportunity to respond to this public consultation. We very much support the Department's approach in gathering views of stakeholders in order to develop a negotiating position on the European Commission's Proposal on the Trans-European Energy Infrastructure (TEN-E) Regulation. We would welcome the opportunity to again engage with Department both as the negotiations on this proposal develop and in relation to other legislative proposals under the EU Green Deal. We would also request that further public consultation is carried out in relation to Ireland's submission to the fifth Projects of Common Interest (PCI) list, which is due to be prepared at the end of this year.
- 1.3 To be in line with science and the 1.5°C objective of the Paris Agreement, the EU needs to reach climate neutrality by 2040. A full decarbonisation of the economy will require the EU to halve energy demand and triple primary energy supply from renewables by 2050, by integrating significant amounts of renewable energy sources into all sectors. This means achieving at least 65% greenhouse gas emission cuts, 45% energy savings and a 50% share of renewable energy by 2030. It will also require a high level of direct electrification of the heating and cooling and transport sector.¹
- 1.4 Friends of the Earth considers that the European Commission's proposal on the TEN-E Regulation is a step forward in certain areas, including in ending direct support for fossil gas projects and in requiring environmental assessments. However, it does not address key structural risks regarding hydrogen and fossil gas development, as well as a lack of independence and oversight in terms of fossil gas supply and demand planning.
- 1.5 The future TEN-E Regulation must fully cater for a future energy system based on the energy efficiency first principle and based on significant and increasing integration of renewable and storage technologies. It is particularly important that Ireland's negotiating position fully respects and aligns with relevant commitments on the PCI process, decarbonisation, renewables and energy efficiency, in the 2020 Programme for Government.
- 1.6 The sections below address these issues and briefly set out what we consider to be the main gaps in the proposed Regulation at this stage. It also includes recommendations on how to enhance the proposed text. It is particularly important that Ireland seeks to resolve weaknesses in the following three areas:
- a) In order for the EU to meet at least 55% mitigation target for 2030 and net zero emissions by 2050 (and further action in accordance with the Paris Agreement), it is not appropriate for new provisions to be introduced which run the risk of expanding and locking-in fossil gas infrastructure. The introduction of a new category in support of 'smart gas grids' creates serious risk that the TEN-E will continue to subsidise

¹ See CAN Europe's and EEB's PAC Scenario report which describes an EU climate neutrality pathway by 2040 <https://caneurope.org/building-a-paris-agreement-compatible-pac-energy-scenario/>

investments in fossil gas infrastructure. It should be noted that risks of fossil gas lock-in and stranded fossil gas assets are particularly acute in the Irish case, **as noted in recent [EPA research](#)**.

- b) Support for hydrogen projects must not be used as a 'back door' for further usage and development of fossil gas. Such support should be limited to renewable hydrogen. The Commission's proposed introduction of a new hydrogen category as currently drafted also runs the risk of subsidisation of fossil gas infrastructure.
- c) The proposed Regulation does not go far enough in removing the fossil gas industry from its central role in the project selection process. Analysis, assessments and recommendations of ENTSO-G cannot be considered to be impartial or independent and run the risk of undermining EU Green Deal objectives without adequate oversight. The future TEN-E regulation and energy infrastructure planning must be transparent and free from any conflict of interest and be based on data, scenarios and evaluations by an independent body.

These issues have been addressed in a **detailed [joint briefing](#) by EU NGOs** (including Friends of the Earth Europe) on the revision of the Trans-European energy infrastructure regulation, produced earlier in 2020. The joint briefing is attached to this submission. We welcome the Department's consideration of this paper and intend to provide further analysis of the legislative proposal from our EU counterparts over the coming months as negotiations progress.

2) Programme for Government Commitments

- 2.1 In reaching a decision on a negotiating position, it is essential that recommendations and proposed amendments proposed by Ireland in the EU Council first and foremost **respect Programme for Government commitments**.
- 2.2 In examining submissions from industry and state stakeholders, including Transmission System Operators, alignment with the Programme for Government (PfG) should be the main lens for guiding Ireland's negotiation position. We would also request that all submissions are published on the Department's website.
- 2.3 The 2020 **Programme for Government includes the specific commitment to *'support the tightening of the sustainability assessment rules prior to the approval of any projects on the EU PCI list'***. The PfG also includes commitments to remove support for the development of LNG terminals importing fracked gas, to withdraw the Shannon LNG terminal from the EU Projects of Common Interest list in 2021 and to end new licenses for the exploration and extraction of fossil gas. It is also noted that *'the reliable supply of safe, secure and clean energy is essential in order to deliver a phase-out of fossil fuels'* and that electrification of heat and transport, combined with greater energy efficiency and renewables, are essential elements of this transition. In this context, we expect the Irish position to strongly support improved amendments on sustainability assessments and on preventing indirect support for fossil gas projects (see further below).
- 2.4 Regarding fossil gas, it is important that any references in the revised Regulation to EU objectives on gas interconnection and LNG access take account of these PfG commitments and Ireland's unique position in having a high degree of interconnection with the UK as a third country. It is important to ensure that the same requirements in terms of planning, consultation, oversight and assessment for Projects of Common Interest (PCI's) are also applied to Projects of Mutual Interest with third countries. We

would welcome the opportunity to address Ireland's proposed position regarding Projects of Mutual Interest with the UK in more detail at a later date.

- 2.5 In the context of fossil fuel risks, the PfG 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 should inform Ireland's response to potential fossil gas development under the TEN-E Regulation.
- 2.6 The PfG includes a commitment to invest in research and development in 'green' hydrogen (generated using excess renewable energy) as a fuel for power generation, manufacturing, energy storage and transport. This commitment to R&D specifically on green hydrogen is appropriate and does not align with an entire new category of support for hydrogen as put forward in the Commission's TEN-E proposal.
- 2.7 As the Department is well aware, the Programme for Government includes several detailed commitments on reaching 70% renewable electricity by 2030, including in relation to offshore wind and interconnection. The most relevant statements in the context of the TEN-E Regulation and PCI/PMI selection are the commitments to '*commence planning for future interconnection with our neighbours*' and to develop a plan on '*how Ireland can become a major contributor to a pan-European renewable energy generation and transmission system, taking advantage of a potential of at least 30GW of offshore floating wind power in our deeper waters in the Atlantic...*' Evidently PCI support offers major opportunities for Ireland in this regard. We suggest that this prioritisation of electricity interconnection and offshore wind is reflected not only in terms of future PCI selection but also in terms of revisions to the TEN-E Regulation.
- 2.8 In relation to the requirement for EU Member States to define the amount of offshore renewable generation to be deployed within each sea basin by 2050, with intermediate steps in 2030 and 2040, we would welcome further information on how and when this will be consulted upon.
- 2.9 It is also important that Ireland's approach to the negotiations fully aligns with the PfG commitment to an average 7% annual reduction in emissions and legally-binding 5-year carbon budgets, to be introduced through new amending legislation in the Oireachtas.

3) Fossil Gas Risks [Article 4, Annex I, II, Annex IV]

- 3.1 Friends of the Earth welcomes the removal of fossil gas infrastructure as an eligible category of projects. However, we have concerns with the Commission proposal to create a new investment category for 'smart gas grids', in order to enable the introduction of new gases into the grid. Decarbonisation of the fossil gas sector cannot be achieved where expansion of gas supplies and gas infrastructure continues to be subsidised.
- 3.2 As noted by [Climate Action Network Europe](#), the Commission and the International Energy Agency have scaled down gas demand projections for 2030 and according to Paris Agreement-compatible energy scenarios, Europe needs to phase out fossil gas by 2035. A significant [study](#) by Artelys found that the gas projects included on the 4th PCI list were not necessary for energy security as existing gas infrastructure is capable of meeting future gas demand scenarios even in cases of extreme supply disruption.² The

² See <https://www.artelys.com/wp-content/uploads/2020/01/Artelys-GasSecurityOfSupply-UpdatedAnalysis.pdf>

reintroduction of the fossil gas category opens up the use of EU public funds on projects which run the risk of **becoming stranded assets**.³

3.3 The Commission's recent sustainability report, which will be used for the 5th PCI list and the revised TEN E, does not take into account full life-cycle emissions of projects, i.e. from extraction and transmission to end use. The operationalisation of the "energy efficiency first" principle during any stage of project evaluation and planning, should also be prioritised.

3.4 **In the Irish context**, UCC MaREI research has highlighted the challenges posed by decarbonisation commitments in relation to fossil fuel demand. They note that "*policy requirements for fossil fuel demand destruction, may lead to a fossil fuel supply glut, which will reduce fossil fuel prices, reducing the effectiveness of low carbon technology policies, incentives, carbon taxes and make the transition to a low carbon economy more volatile.*"⁴

3.5 MaREI research has 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 They further note that "[a]dhering to the existing [low] nearterm emission target may raise risks of 'lock-in' to an energy system configuration that meets the near-term target but is unsuitable for a long-term 1.5 °C roadmap." They also point to significant challenges and risks in using the gas network to reduce emissions.⁶

3.6 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 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." Their analysis of **standing asset risks in Ireland** "point to a potentially significant level of disconnections from the distribution network from 2030 to 2050, caused by fuel switching and energy efficiency, resulting in less system throughput." It is stated that "the levels of disconnections could lead to the decommissioning of sections of the network, which presents a risk to the network operator." 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.**"⁷

3.7 There are also major questions surrounding the viability, sustainability and cost effectiveness of renewable and so-called "low-carbon" new gases. E3G research notes

³ CAN Europe briefing on the risks of continuing subsidisation of gas infrastructure in the EU.

<https://caneurope.org/content/uploads/2020/10/Fossil-gas-should-not-receive-public-funds.pdf>

⁴ Glynn, J., Chiodi, A. & Ó Gallachóir, B. Energy security assessment methods: Quantifying the security co-benefits of decarbonising the Irish Energy System. Energy Strategy Reviews 15, 72–88 (2017).

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

⁷ 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

that biogas may be best targeted at harder-to-abate sectors, such as heavy industry. However, the authors of the report point to significant uncertainties regarding the technical and economic potential of renewable and decarbonised gas, as well as the lifecycle emissions of these options and their infrastructure implications. They underline that the focus should be on alternative options for decarbonisation and conclude that “the future prospect of renewable and decarbonised gases is no reason to slow down electrification or efficiency at this stage.”⁸

3.8 Regarding proposed biogas development in Ireland, research from the SEAI⁹, the Irish Academy of Engineers¹⁰ and McMullin et al¹¹ all highlight significant challenges and concerns regarding biogas development, including of methane leakage, increases Nitrogen Oxide emissions, land availability, development and transportation costs, planning, permitting, timescales, public acceptance and gas quality control.

3.9 UCC research notes that investment in gas infrastructure assets, including biogas, may extend the life of the network. However, several risks are noted regarding fossil gas infrastructure:

- Investment in gas infrastructure with long payback periods “carries a significant investment risk in terms of ‘carbon lock-in”;
- Increasing investment in gas network assets “puts a greater value at risk in the long term”;
- The customer base for natural gas will decrease resulting in higher fees and investment needs of gas-fired generators may results in increases in transmission tariffs.¹²

3.10 In conclusion, PCI status for ‘smart gas grids’ should be limited and come with a clear stipulation that fossil gas network expansion is not supported. We recommend that the currently vague definition of smart grids is improved to ensure that such supports cannot be to expand existing gas assets used to transport fossil fuels. Vague text concerning “low carbon” gases should also be removed and the blending of renewable gases with fossil gas should be explicitly excluded.

4) Hydrogen [Articles 4, 11 and Annex I]

4.1 It is recognised that hydrogen, where produced from renewable electricity, may constitute a promising technology to ensure decarbonisation of energy demand that cannot otherwise be achieved through electrification or storage. However, as renewable hydrogen is not a primary source of energy but an energy carrier requiring conversion from renewable electricity, its use is currently considered to be limited, and its development and ability to deliver at the scale and speed necessary requires careful, independent assessment.

⁸ E3G Renewable and Decarbonised Gas Options for a Zero-Emissions Society, Lisa Fischer June 2018

⁹SEAI. Assessment of Cost and Benefits of Biogas and Biomethane in Ireland, 2017
<https://www.seai.ie/publications/Assessment-of-Cost-and-Benefits-of-Biogas-and-Biomethane-inIreland.pdf>

¹⁰ http://iae.ie/wp-content/uploads/2018/08/IAE_Natural_Gas_Energy_Security.pdf

¹¹ McMullin et al, 2018. Is Natural Gas “Essential for Ireland’s Future Energy Security”? Independent academic review commissioned on behalf of Stop Climate Ireland. <https://tinyurl.com/sjutvfm>

¹² 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 McNerney, Conor Hickey, Paul Deane, Joseph Curtin and Brian Ó Gallachóir)
https://www.epa.ie/pubs/reports/research/climate/Research_Report_302.pdf

- 4.2 Given that almost all hydrogen currently comes from fossil fuels, there is a significant risk that the EU hydrogen sector could fail to shift to renewable hydrogen and instead becomes a way to justify continued investments in fossil fuels and maintaining legacy or building new infrastructure that should instead be decommissioned. **This issue has been examined in detail by CAN Europe in a recent briefing paper.**¹³ |
- 4.3 The Commission has noted that “The future EU hydrogen network is expected to consist to a great extent of natural gas assets repurposed for hydrogen transport, but it will also require new infrastructure.” While EU support may be appropriate in certain instances to make fossil gas infrastructure “hydrogen-ready”, this must be limited and come with the clear stipulation that such support does not extend to increasing development and/or use of fossil gas assets. Concerns regarding the potential for ‘smart gas grids’ to allow for continued fossil gas investment and gas lock-in risks, as outlined in section 3, are equally applicable to the proposed inclusion of hydrogen infrastructure as a category in the proposed TEN-E Regulation.
- 4.4 Because only renewable hydrogen is aligned with the goals of the Paris Agreement and the EU’s climate targets, the proposal should be changed to only support hydrogen projects from renewable sources. Additionally, given the low volumes of renewable-hydrogen currently available, it should be used only be used for sectors that cannot be electrified.
- 4.5 Given the low expected volumes of hydrogen produced from 100% additional renewable electricity, and the cost and technical difficulties involved in transporting hydrogen over long distances, **the construction or repurposing of existing gas grids for hydrogen should not be a priority.** The potential requirement for renewable hydrogen for some very specific and hard to abate sectors, does not justify investments in building extensive network assets (as proposed by the fossil gas industry) given that this would only deepen the gas lock in effect. References to a EU-wide hydrogen network as part of a new hydrogen category in the proposed regulation should be removed.
- 4.6 When compared to energy efficiency measures or wind and solar energy, both fossil and renewable hydrogen are both energy intensive and expensive. It is in this context that any support for hydrogen infrastructure should not come at the expense of already effective, increasing and cost effective energy solutions.
- 4.7 The Commission’s inclusion of hydrogen infrastructure among priority infrastructure in the TEN-E also does not specify the kind of hydrogen that should be transported. The proposal is also inconsistent in its use of terms such as “clean” and “low-carbon” hydrogen, risking uncertainty about whether fossil fuel-based projects can be included. So-called ‘blue hydrogen’ relies on carbon capture and storage (CCS) to reduce emissions. However, CCS remains an unproven technology that has failed to materialise despite decades of support and billions in investment. It also does not address upstream emissions. A transitional use of fossil-based hydrogen is highly problematic as infrastructure developed will be different than that built for renewables-based hydrogen, leading to a combination of fossil fuel lock-in or stranded assets.

¹³ CAN Europe Position on Hydrogen, February 2021
https://caneurope.org/content/uploads/2021/02/CAN-Europe_position-on-hydrogen_February-2021.pdf

5) Role of ENTSO-G [Articles 11 to 13]

- 5.1 Under the current PCI process, Transmission System Operators, and especially ENTSO-G, play a leading role both in infrastructural planning and evaluation of projects, and also in modelling. This has led to undue influence over the selection process for identifying priority EU energy infrastructure projects and a consistent overestimation of gas demand projection and infrastructure needs. **This conflict of interest, including the level of subsidies to PCIs backed exclusively by ENTSO-G members, has been [examined in detail](#) by Global Witness.**¹⁴
- 5.2 ACER (Agency for the Cooperation of Energy Regulators) and CEER (Council of European Energy Regulators) noted in a joint position paper in June 2020 that “most of the problems that arose during the past implementation of the Regulation could be ascribed to the regulatory role inappropriately attributed to the ENTSOs, despite their conflict of interest”.¹⁵
- 5.3 The Commission’s proposal does not alter the current process. As with the current Regulation, in the Commission’s proposal ENTSO-G enjoys outsized influence over the creation of PCI lists. Future projects must first be included in ENTSO-G’s project list: the Ten Year Network Development Plan. ENTSO-G are also to draft the guidelines that determine which projects can be on the list approved by the Commission or Parliament.
- 5.4 The concern is that without significant amendments, ENTSO-G members will remain largely responsible for determining EU infrastructure needs and selecting priority energy projects without regard to Paris Agreement objectives or EU climate and energy targets.
- 5.5 It is positive that the methodologies by which cost-benefit analyses will be developed must undergo consultation. However, a conflict of interest again arises in that ENTSO-G are tasked with producing the methodologies. It is also not appropriate to mandate only ENTSO-G to develop hydrogen scenarios - as proposed in Annex III 2 (4).
- 5.6 ENTSO-Gs must not be mandated to identify infrastructure priorities. Decisions on PCI proposals and assessment of demand scenarios should be taken independently by an ad hoc technical expert body or by Commission/ACER with the oversight of an independent expert panel (and subsequently reviewed and approved by the European Parliament). It is not enough for ACER and the Commission to merely provide opinions on ENTSO-G methodologies. ENTSO-G’s role should be limited to technical implementation.
- 5.7 Regarding consultation with “relevant stakeholders” before publication, as well as during the scenarios development process, it is essential that “relevant stakeholders” is defined and includes representation from both impacted communities/individuals and civil society organisations

6) Sustainability Criteria [Article 2 and 4, Annex II and IV]

- 6.1 As noted in section 2, the 2020 Programme for Government includes the specific commitment to ‘*support the tightening of the sustainability assessment rules prior to the approval of any projects on the EU PCI list*’.
- 6.2 The 2020 decision by the European Ombudsman concerning gas projects on the 4th PCI list highlighted that sustainability was not assessed correctly. The Commission’s

¹⁴ Global Witness, Pipe Down, June 2020 https://www.globalwitness.org/documents/19909/Pipe_Down.pdf

¹⁵ See <https://www.ceer.eu/documents/104400/-/-/c4f763dd-27e7-7113-9809-1ec50f530576>

inclusion of sustainability as priority criteria across most infrastructure categories is welcome. However, the sustainability criteria against which projects on the PCI list are assessed are too vague and need to be revised. It is also important to note that the integration and transmission of renewable energy alone does not ensure sustainability.

6.3 Sustainability criteria should include EU obligations on biodiversity protection and integrate the principle of sustainable development. The latter should be clearly defined in the context of Member States' commitment to achieve the Sustainable Development Goals which addresses all three dimensions of sustainability – social, environmental and economic.

6.4 Without a clear definition of sustainability, there is a risk that the definition is created during the PCI selection process or that such a broad definition of sustainability is included to render the provision meaningless. Indeed, the current sustainability assessment by ENTSO-G consists of comparing fossil gas projects against coal projects which is entirely inappropriate.

6.5 An obligation should be included for all projects, including electricity infrastructure projects, to meet mandatory sustainability criteria and to follow the 'do no harm' principle as set out in the Green Deal.

7) Carbon Capture and Storage and Pipelines [Articles 2 and 4]

7.1 Carbon capture, storage, and transport infrastructure should be removed from the categories eligible under regulation. CCS is still unproven on the large scale required under several climate mitigation scenarios, it requires large amounts of energy and raises concerns about safety and significant leaks.

7.2 Studies and projections also show that significant levels of CCS are not expected before 2030, at the earliest, which makes the technology incompatible in view of increasingly small carbon budgets.

7.3 Several risks and challenges associated with CCS development and reliance have been raised, including in the Irish context:

- Ervia acknowledge a “legacy risk” that CO₂ may leak from such facilities in the future. They also note that in the case of transportation to Norway, it is currently not clear to which country the carbon credit would be applied (Ireland or Norway).¹⁶
- McMullin et al (2019) note that the expectation of successful sequestration through CCS raises a considerable moral hazard risk to the effect that insufficient decarbonisation would be deemed acceptable on the basis that ongoing shortfalls may be compensated at some future point by CO₂ removals through CCS (or other technologies).¹⁷ McMullin (2018) also points out that potentially limited capacity for geological carbon storage within Ireland.¹⁸

¹⁶ See

https://www.oireachtas.ie/en/debates/debate/joint_committee_on_communications_climate_action_and_environment/2019-10-15/3/

¹⁷ McMullin B, Price P, Jones MB, McGeever AH (2019) Assessing negative carbon dioxide emissions from the perspective of a national “fair share” of the remaining global carbon budget. Mitigation and Adaptation Strategies for Global Change <https://tinyurl.com/y6tkw383>

¹⁸ McMullin et al, 2018. Is Natural Gas “Essential for Ireland’s Future Energy Security”? Independent academic review commissioned on behalf of Stop Climate Ireland. <https://tinyurl.com/sjutvfm>

- The EPA note international studies which show that negative emissions technologies including bioenergy with CCS may only extend the 2050 carbon budget by modest amounts and that they are subject to significant uncertainty.¹⁹
- E3G have highlighted the production of natural gas is characterised by significant methane emissions along the supply chain and as a result, CCS alone is unlikely to bring emissions down to zero.²⁰

7.4 If carbon projects are retained in the proposal, they should include requirements that 100% renewable energy is used in the process of capture, transport and storage and strict safety measures and provisions against leaks, and standards for the choice of the storage sites linked to a CO2 transport PCI.

¹⁹ See Caldecott, B., Lomax, G. and Workman, M., 2015. Stranded Carbon Assets and Negative Emissions Technologies. Smith School of Enterprise and the Environment, University of Oxford, Oxford as noted in https://www.epa.ie/researchandeducation/research/researchpublications/researchreports/Research_Report_302.pdf

²⁰ E3G Renewable and Decarbonised Gas Options for a Zero-Emissions Society, Lisa Fischer June 2018