



**Submission to the review of the security
of energy supply of Ireland's electricity
and natural gas systems**

To:

Wholesale Electricity and Gas Policy Division

Department of the Environment, Climate and Communications

Date: October 28th 2022

Email to energyconsultation@decc.gov.ie

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“It’s a really bleak moment, not only because of the reports showing that emissions are still rising, so we’re not delivering on either the Paris or Glasgow climate agreements, but we also have so much scientific evidence that we are very, very close to irreversible changes – we’re coming closer to tipping points.”

Prof Johan Rockström, director of the Potsdam Institute for Climate Impact Research in Germany. ¹

¹ <https://www.theguardian.com/environment/2022/oct/27/world-close-to-irreversible-climate-breakdown-warn-major-studies>

Appropriate Action

It is paramount that all recommendations from the energy review are consistent with the latest science and that actions taken are appropriate to the fact that we are charging towards complete climate, ecological and societal collapse.

This week, multiple reports were published by the UN and the World Resources Institute about the Global Gap in Climate Action and the fast approach of 'irreversible' climate breakdown. At the same time the fossil fuel industry is reporting astronomical profits and consumers are choosing between eating and heating.

According to the latest figures of the European Commission relating to energy use, Ireland is the only EU member that reported an increase in gas consumption in the second quarter of 6.4% year on year, despite growing concern that the energy supply won't meet the demand this winter. For the third quarter figures show that the gas demand increased by 10%, compared to the same period last year.

<https://www.farmersjournal.ie/irelands-gas-use-increases-as-prices-plummet-730683>

Closer to home, in 2019 studies showed how vulnerable Clare is to flooding, from global warming impacts such as heavy rain and rising sea levels.

60,000 homes at a 'significant risk' from flooding

Clare and Louth are the counties where dwellings are most likely to be affected, with **10%** and **9%** of homes respectively at risk.

<https://www.irishexaminer.com/news/arid-30916190.html>

Newspapers and our inboxes are full of warnings, tragedy, loss and pain:



Elephants and other wildlife are dying in **STAGGERING NUMBERS** in Kenya's worst **DROUGHT** in nearly a half-century. **We're URGENTLY RUSHING LIFE-SAVING WATER - but we desperately need your help to SAVE LIVES!** *There is no time to spare!*



Floods in Africa, Europe, Australia:

Weather tracker
Nigeria

Analysis

Weather tracker: Nigeria flooding and US blows hot and cold

Nicholas Lee for MetDesk

Authorities partly blamed after months of deadly flooding in African nation; jet stream causes temperature divide in US

Fri 21 Oct 2012 09:00 BST



© A flooded road in Lokoja, Nigeria. Photograph: Reuters

Spain – Floods in Catalonia and Valencia, Policeman Dies in Flood Rescue in Benissa

REPORT BY JONATHAN HARRIS FOR THE IRRAWADDI

Storify weather including heavy rain affected the regions of Catalonia and Valencia in eastern Spain from 16 September 2022



Floods in Valencia's Burjassot district, Spain, 17 September 2022. Photo: F. J. J. de la Cruz via AP WireImage

According to the Meteorological Service of Catalonia, 90mm of rain fell in the Port of Valencia area in 60 minutes on 16 September.

Emergency services received a total of 187 calls for 138 accidents during the storm winds in Murcia. Floods in Murcia and Castellón also saw contacts. Around 28 calls were received for accidents in Benissa, Valencia.

Spain – 1 Killed in Murcia Flash Floods After 29mm of Rain in 10 Minutes

REPORT BY JONATHAN HARRIS FOR THE IRRAWADDI

Storify weather including heavy rain affected the regions of Catalonia and Valencia in eastern Spain from 16 September 2022

Torrential rain has caused devastation in parts of Murcia region in south-eastern Spain. Floodwaters recede one day after flash floods destroyed a hotel, while emergency services rushed to dozens of casualties needing flood rescue.



<https://floodlist.com/europe/spain-murcia-floods-september-2022>

Pakistan floods; killed nearly 1,700 people and affected 33 million people, 2,000 of their hospitals and health centres are damaged.

Pakistan floods: 'It's like fighting a war with no end'

By Rajni Vaidyanathan



Three-year-old Gulistan is still from flooding in eastern Punjab, Pakistan.

By Rajni Vaidyanathan
BBC News South Asia Correspondent

The United Nations has issued a new appeal for more than \$600m (£390m) for flood-hit Pakistan. The funds, a five-fold increase on the previous request, would help families and children battle malnutrition and infection in what is now a public health emergency.

It comes as the country struggles to cope after more than 2,000 hospitals and health centres were damaged or destroyed in recent floods, which left almost 1,700 people dead.

<https://www.bbc.com/news/world-asia-63080101>

Pakistan floods: Six month wait for water to recede, warn relief agencies



<https://news.un.org/en/story/2022/09/1127051>

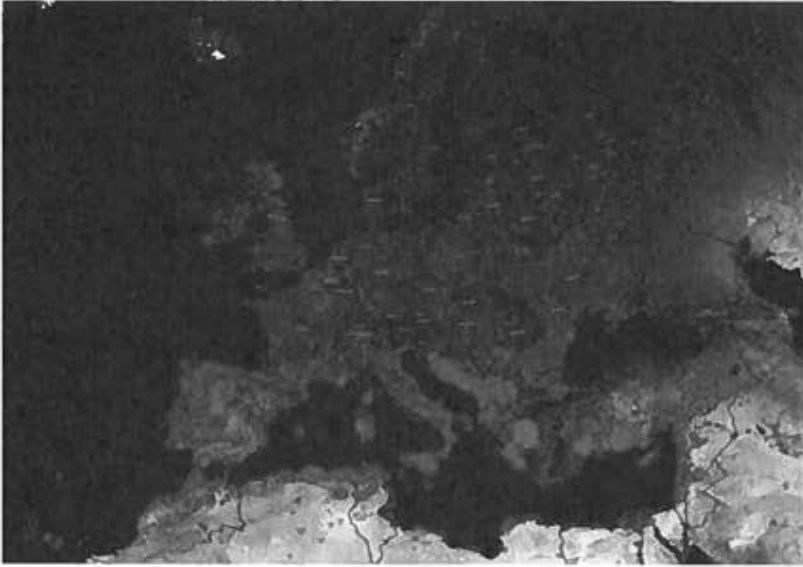
Fires in Europe:

Black Summer - European Wildfires



***With Europe experiencing vast destruction of land,
and disruption to life, AirMed&Rescue considers if
Europe was ready, and with climate change
increasing, what can we learn?***

<https://www.airmedandrescue.com/latest/long-read/black-summer-european-wildfires>



Forest fires in the pan-European region in 2021
© EU, 2022

my.europe EUROPE NEWS

Forest fires: Nine member states now have new burned area records COMMENTS

By Euroneews - Updated: 07/10/2022



A forest burns during a wildfire near Alora, eastern Spain, on Friday, Aug. 19, 2022. - COURTESY AP PHOTO/SENDA SAG

"As of October 1, more than 771,000 hectares had been scorched by forest fires in the 27-country bloc, itself the highest tally observed since records began in 2006, according to the European Forest Fire Information System (EFFIS).

Nine countries saw new records. They were Austria, the Czech Republic, France, Germany, Hungary, Romania, Slovakia, Slovenia, and Spain.

For six of them, the records were shattered by large margins because the annual averages recorded between 2006 and 2021 were extremely low.

This is the case of the Czech Republic, where 1,436 hectares were burned this year compared to an average of just 9.06 in the 2006-2021 period — about 160 times higher."

<https://www.euronews.com/my-europe/2022/10/07/forest-fires-nine-member-states-now-have-new-burned-area-records>



<https://edition.cnn.com/2022/07/17/weather/europe-heat-wave-wildfires-climate-change-intl/index.html>

A study published in June in the journal *Environmental Research: Climate* concluded it was highly probable that climate change was making heatwaves worse.

At least 1,000 deaths have been attributed to the heatwave in Portugal and Spain so far. Temperatures in Spain have reached as high as 45.7 degrees Celsius (114 degrees Fahrenheit) during the nearly week-long heat wave.



The heat wave is due to end in Spain Monday, but firefighters are still tackling wildfires in northern regions including Puntaxero de Torá near Zamora.

<https://edition.cnn.com/2022/07/17/weather/europe-heat-wave-wildfires-climate-change-intl/index.html>

Wildfires [+ Add to myFT](#)

Wildfires rage across Portugal as intense heatwave grips Europe

Dangerous blazes are becoming more common as climate change brings winter droughts and very hot summers



A man hoses flames during a forest fire in Canecas, on the outskirts of Lisbon, Portugal. © Mario Cruz/EPA-EFE/Shutterstock

Wildfires rage as another heat wave bakes western Europe



Firefighters struggle as they work to contain a fire in Saône-et-Loire, as wildfires continue to spread in the Grande région of France. © EPA-EFE

<https://www.japantimes.co.jp/news/2022/08/12/world/wildfires-rage-europe/>

Heatwaves in Antarctica:

Bloomberg
Europe Edition

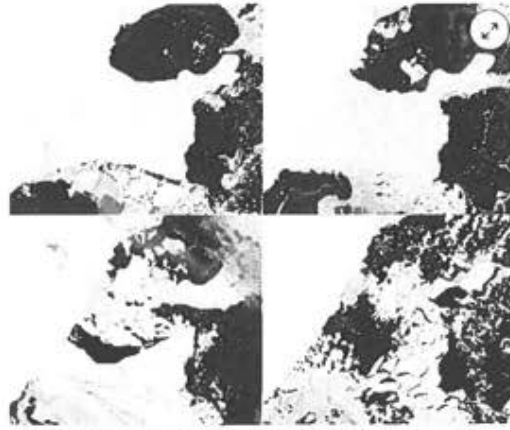
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Green
Energy &
Science

Antarctica Heat Wave Brings Alarming Temperature Jump

An unusual influx of warm, wet air caused the highest-ever recorded leap above normal: a 70°F increase.



Satellite imagery shows the collapse of the Conger ice shelf from February 22 - March 21, 2022. Source: NASA

By Eric Roston
March 30, 2022 at 10:00 AM GMT+1

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<https://www.bloomberg.com/news/articles/2022-03-30/antarctica-heat-wave-brings-enormous-temperature-jump>

Droughts; not only in Southern hemisphere but causing widespread crop failures in northern hemisphere:

Drought

Climate crisis made summer drought 20 times more likely, scientists find

Record northern hemisphere drought in 2022 hit crops and power stations, worsening food and energy crises

Damian Carrington
Environment editor

[@damiancarrington](#)
Thu, 5 Oct 2022 22:00 BST



Cracked soil at Alto Rabagão dam in northern Portugal. The dry conditions caused water shortages and wildfires across North America, Europe and Asia. Photograph: Jose Coelho/EPA

<https://www.theguardian.com/environment/2022/oct/05/climate-crisis-made-summer-drought-20-times-more-likely-scientists-find>

Famine in Somalia:

AP/WIDE WORLD
As "a child per minute" is hospitalized, U.N. warns "it will be too late" if world waits to help Somalia

By [Elizabeth G. Tracey](#)



<https://www.cbsnews.com/news/somalia-famine-child-per-minute-hospitalized-hunger-drought-unicef-says/>

Somalia drought: The fight for survival as famine looms

By [Andrew Harding](#)

2022 East Africa drought



AP/WIDE WORLD
Dahir is buried at the family's home in Mogadishu, Somalia, after he died of starvation.

By [Andrew Harding](#)

AP/WIDE WORLD

Young children are dying in growing numbers in Somalia amid the worst drought to hit the country in 40 years. Government officials say that an even greater catastrophe could sweep the country within days or weeks unless more help arrives.

The tears tumbled down 11-year-old Dahir's hunger-hollowed cheeks.

"Just want to survive this," he said quietly.

Seated beside the family's makeshift tent, on the dusty plain outside the city of Baidoa, his weary mother, Fatuma Omar, told him not to cry.

"Your tears will not bring your brother back. Everything will be fine," she said.

Fatuma's second son, 10-year-old Salat, died of starvation two weeks ago, shortly after the family reached Baidoa from their village, three days' walk away. His body is buried in the rocky earth a few metres from their new home; the grave already covered in litter and increasingly hard to spot as new tents are set up camp around them.

<https://www.bbc.com/news/world-africa-63116210>

The warnings continue and nowhere near enough action is being taken by the Irish government and state bodies, the opposite, promotion and development of fossil fuelled industry.

Climate crisis

Climate crisis: UN finds 'no credible pathway to 1.5C in place'

Failure to cut carbon emissions means 'rapid transformation of societies' is only option to limit impacts, report says

Damian Carrington
Environment editor

@dpcarrington

Thu 27 Oct 2022 13:00 BST



A firefighter sets fire to land in an attempt to prevent wildfires from spreading in Gironde, south-west France. A rise in global temperature of 1C to date has already contributed to climate disasters. Photograph: Thibaud Moritz/AFP/Getty Images

<https://www.theguardian.com/environment/2022/oct/27/climate-crisis-un-pathway-1-5-c>



Greenhouse gas
emissions

Current emissions pledges will lead to catastrophic climate breakdown, says UN

United Nations says governments need to set new goals and make deeper cuts to limit temperature rises to 1.5C

Fiona Harvey Environment
correspondent

Wed 26 Oct 2022 11:11 BST



A man sits next to the carcass of a dead cow in the village of Hargudabo, Ethiopia. There has hardly been a drop of rain in Hargudabo in 18 months. Photograph: Eduardo Soteras/AFP/Getty Images

Pledges to cut greenhouse gas emissions will lead to global heating of 2.5C, a level that would condemn the world to catastrophic climate breakdown, according to the United Nations.

<https://www.theguardian.com/environment/2022/oct/26/current-emissions-pledges-will-lead-to-catastrophic-climate-breakdown-says-un>

Intergovernmental Panel on Climate Change (IPCC) - 6th Assessment Report

Earlier this year, on the 4th of April 2022, the Intergovernmental Panel on Climate Change (IPCC) published its final report – 'Climate Change 2022: Mitigation of Climate Change'. It has concluded that there's an extremely narrow window of only thirty months to rapidly decarbonize if we want to avert Climate Breakdown.

Antonio Guterres, the United Nations Secretary General, added that *"increasing fossil fuel production will only make matters worse."*

<https://www.theguardian.com/environment/2022/apr/04/ipcc-report-now-or-never-if-world-stave-off-climate-disaster>

After the first publication of the 6th Assessment Report, Antonio Guterres already mentioned that this report *"is a code red for humanity. The alarm bells are deafening, and the evidence is irrefutable: greenhouse gas emissions from fossil fuel burning and deforestation are choking our planet and putting billions of people at immediate risk"*.

<https://www.un.org/press/en/2021/sgsm20847.doc.htm>

As can be seen below, the study on the Global Gap in Climate Action up to 2022, published on October 26th 2022 by the New Climate Institute shows there are serious changes needed, including:







- in energy generation,
- the transparency around emissions reporting,
- Share of unabated gas in electricity generation: needs U-Turn
- Technological carbon removal: needs to be improved tenfold.


The Global Gap in Climate Action: Recent Progress Toward 2030 Targets






















 **ON TRACK:** Change is occurring at or above the pace required to achieve the 2030 targets

NONE






 **OFF TRACK:** Change is heading in the right direction, but is progressing at a significantly slower pace

 Ruminant meat productivity	→ 1.3x
 Reforestation	→ 1.5x
 Share of electricity in the industry sector's final energy demand	→ 1.7x
 Share of electric vehicles in light-duty vehicle sales*	→ 5x
 Share of zero-carbon sources in electricity generation*	→ 6x
 Share of battery electric vehicles and fuel cell electric vehicles in bus sales*	→ >10x

 **WELL OFF TRACK:** Change is heading in the right direction, but well below the required pace

 Deforestation	→ 2.5x
 Carbon intensity of electricity generation	→ 5x
 Ruminant meat consumption	→ 5x
 Total public financing for fossil fuels	→ 5x
 Energy intensity of building operations	→ 5x Commercial → 7x Residential
 Share of unabated coal in electricity generation	→ 6x
 Number of kilometers of rapid transit per 1 million inhabitants	→ 6x
 Crop yields	→ 6x
 Median carbon price in jurisdictions with pricing systems	→ 8x
 Carbon intensity of global cement production	→ 10x
 Green hydrogen production	→ 10x
 Number of kilometers of high-quality bike-lanes per 1,000 inhabitants	→ 10x
 Share of electric vehicles in the light-duty vehicle fleet	→ 10x
 Technological carbon removal	→ 10x
 Global total climate finance	→ 10x
 Global public climate finance	→ 10x
 Global private climate finance	→ 10x
 Share of global emissions under mandatory corporate climate risk disclosure	→ 10x
 Share of battery electric vehicles in medium- and heavy-duty vehicle sales*	Ins. data
 Share of sustainable aviation fuels in global aviation fuel supply*	Ins. data
 Share of zero-emission fuel in maritime shipping fuel supply*	Ins. data

 **WRONG DIRECTION:** Change is heading in the wrong direction, and a U-turn is needed

 Share of unabated fossil gas in electricity generation	U-turn needed
 Carbon intensity of global steel production	U-turn needed
 Share of kilometers traveled by passenger cars	U-turn needed
 Mangrove loss	U-turn needed
 Agricultural production GHG emissions	U-turn needed

 **INSUFFICIENT DATA:** Data are insufficient to assess the gap in action required for 2030

 Carbon intensity of building operations	Ins. data
 Retrofitting rate of buildings	Ins. data
 Carbon intensity of land-based passenger transport	Ins. data
 Peatland degradation	Ins. data
 Peatland restoration	Ins. data
 Mangrove restoration	Ins. data
 Share of food production lost	Ins. data
 Food waste	Ins. data

 Exponential Change Likely  Exponential Change Possible  Exponential Change Unlikely

*For Exponential Change Likely indicators, in some cases we adjusted the status based on the literature or expert judgment.

Source: Boehm et al 2022



<https://newclimate.org/resources/publications/state-of-climate-action-2022>

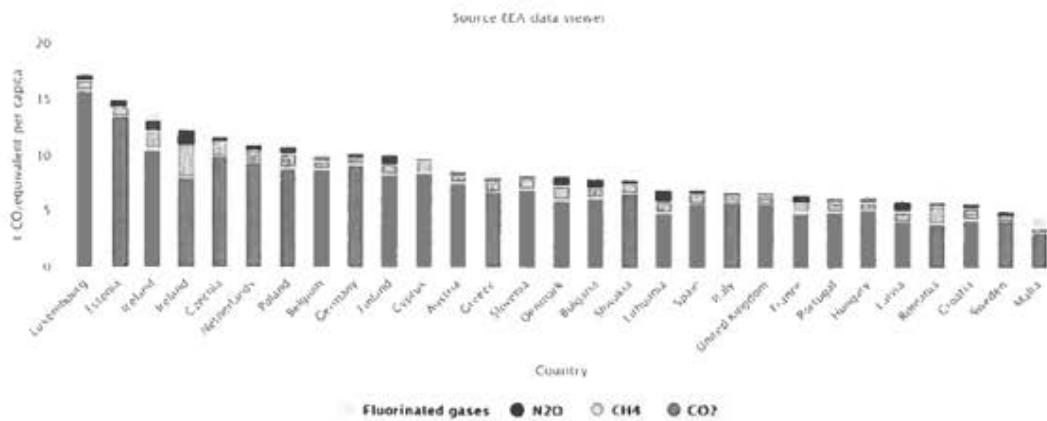
Degrowth for Energy Security

We radically need to scale back our consumption of resources. Society's current model of economic growth is unsustainable. We quote Sam Alexander, a degrowth advocate and research fellow at the Melbourne Sustainable Society Institute at the University of Melbourne in Australia. He says degrowth *"doesn't mean we are going to be living in caves with candles. Instead, it might mean people in rich countries changing their diets, living in smaller houses and driving and travelling less."*

Jason Hickel, a University of London academic states that *"It is important to clarify that degrowth is not about reducing GDP, but rather about reducing [energy and resource] throughput."*

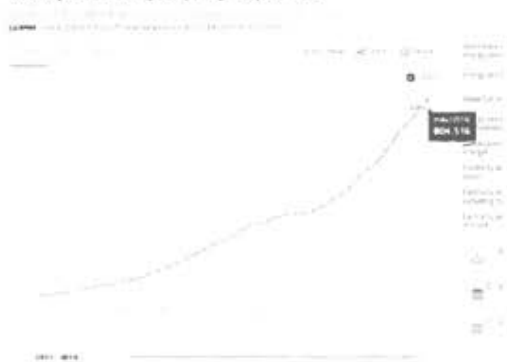
<https://www.weforum.org/agenda/2022/06/what-is-degrowth-economics-climate-change/#:~:text=Degrowth%20is%20a%20radical%20economic,cancer%20treatments%20to%20indoor%20plumbing.>

This year, Earth Overshoot Day fell on 28th July. Earth Overshoot Day marks the date when humanity has used all the biological resources that Earth regenerates during the entire year. If the world's population live to the Irish standard of living, World Overshoot Day would have been on 21st April this year. This means that humanity would need 3.3 planet Earths to sustain that level of consumption.

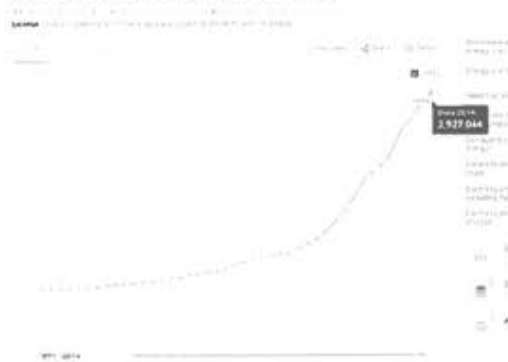


Ireland; third highest emissions in Europe. Source:IEA

Electric power consumption (kWh per capita) - India



Electric power consumption (kWh per capita) - China



Electric power consumption: 804 kWh per capita in India and 3,927 kWh per capita in China. Source:IEA

Electric power consumption (kWh per capita) - Ireland



Electric power consumption: 5,672 kWh per capita in Ireland. Source:IEA

As illustrated above, Ireland is the third highest producer of emissions in Europe and is already responsible for the highest level of methane emissions. Ireland's electricity consumption per capita also rates very high compared to that of China or India. Despite our population being a fraction of the other two countries our consumption is extremely high. We need to take responsibility for the disproportionate impact that we are having on climate, the people in the Global South witnessing the worst of the impacts.

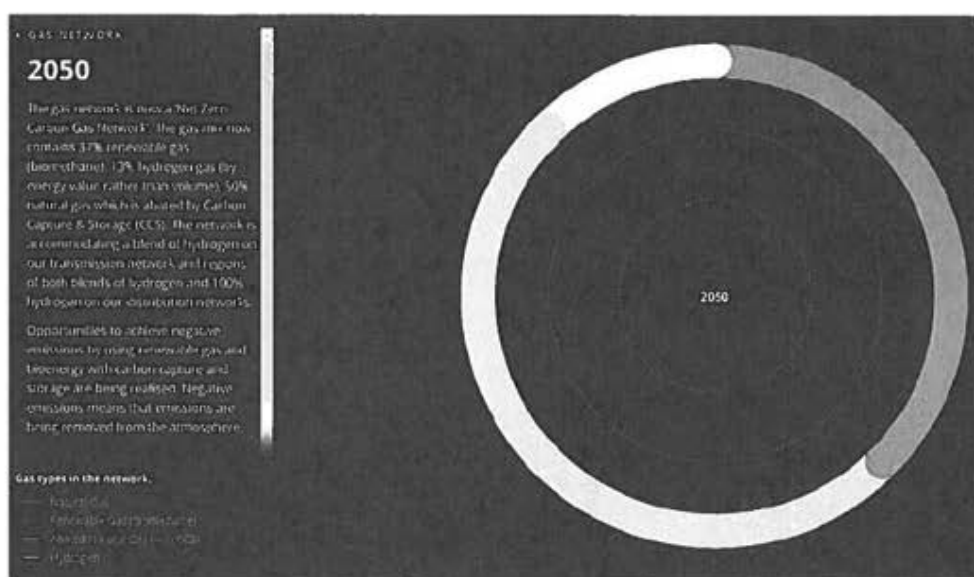
Current government policies allow and in fact promote energy demand increases. As the Irish energy system is based on demand and supply, these increases currently automatically mean increases in fossil fuel imports, consumption and therefore climate wrecking emissions. Even when switching to renewables the lower the demand the less embodied carbon and destruction of the natural world will occur during raw material extraction and construction. Government policies must shift immediately to reducing consumption until we are using only essential resources to an extent which does not infringe on the rights of others, including the rights of other-than-humans, which will narrow the gap between demand and available natural resources and put a stop to systematic exploitation and devastation of the natural world.

Unsustainable Economic Models

Fossil fuel industry and semi state bodies must stop actively increasing their market and customer base

The government must ensure from this moment that fossil fuel companies and semi state bodies like CRU and Gas Network Ireland are not allowed to advertise for new customers but instead actively work with existing customers to end their fossil fuel reliance as part of their just transition. In the Gas Network Ireland's 2050 Vision they expect to 'decarbonise' Irish homes by connecting a further 300,000 currently oil-reliant homes to the grid by 2030.

Gas Network Ireland's 2050 vision is in no way low carbon for the following scientific reasons. Given its heavily carbon based business model will never support the creation of a low carbon Ireland.



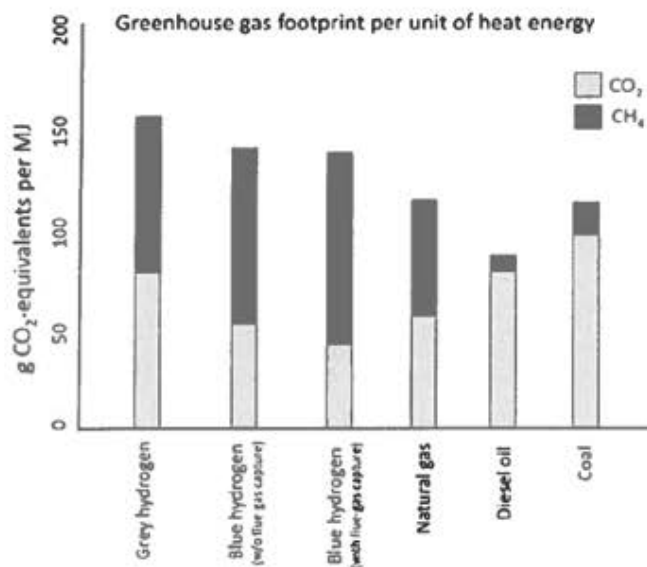
Source: GNI 2050 Vision: 13% Hydrogen, 37% Biomethane, 50% Abated Natural Gas

GNI proposes to use 50% abated gas, even in 2050 and beyond. This is using fossil gas (likely fracked gas, given the dominance of fracked globally) ignoring all the associated emissions and leakages which occur during extraction, liquefaction, transport and storage, before the burning process even begins, and then attempting to safely capture and store the carbon dioxide from the burning process. Carbon Capture and Storage/ Carbon Sequestration/ Carbon Dioxide Removal technology to 'abate' the fossil gas emissions has not yet been used at scale, *anywhere*. The IPCC amongst others are warning that mitigation of effects of current/ future 'Natural' Gas/ LNG use is NOT an option. In *"Mitigation Pathways Compatible with 1.5°C in the Context of Sustainable Development"*, they warn that,

"[Carbon Dioxide removal or Carbon Sequestration] deployed at scale is unproven, and reliance on such technology is a major risk in the ability to limit warming to 1.5°C."

The future of hydrogen as a method of decarbonising the energy mix as proposed by GNI is also very worrying. According to experts, *Robert W. Howarth and Mark Z. Jacobson*;

"Currently, most hydrogen is produced by steam reforming of methane in natural gas ("gray hydrogen"), with high carbon dioxide emissions. Increasingly, many propose using carbon capture and storage to reduce these emissions, producing so-called "blue hydrogen". [...] The total carbon dioxide equivalent emissions for blue hydrogen are only 9%-12% less than for gray hydrogen. [...] The greenhouse gas footprint of blue hydrogen is more than 20% greater than burning natural gas or coal for heat and some 60% greater than burning diesel oil for heat."



Graph: *How green is blue hydrogen?* Prof. Robert W. Howarth and Prof. Mark Z. Jacobson

The transition to hydrogen, even green hydrogen, is not simple. The entire infrastructure has to be replaced in order to withstand the higher pressure at which hydrogen needs to be transported at.

Greenwashing

The government must stop greenwashing which they are involved in through the state bodies like Bord nMona, ESB, EPA, Irish Water sponsoring the Green Awards and awarding fossil fuel semi state body, Gas Networks Ireland in 2020, 2021 and 2022, for their achievements in sustainability.

Gas Networks Ireland Awards



Green Public Sector Organisation of the Year 2022

Following another successful year delivering on its holistic sustainability programme, Gas Networks Ireland was named Green Public Sector Organisation of the Year at the 2022 Green Awards at the Clayton Hotel on Burlington Road in Ballsbridge, Dublin.

Gas Networks Ireland was named Green Public Sector Organisation of the Year at the 2022 Green Awards at the Clayton Hotel on Burlington Road in Ballsbridge, Dublin.

Anna Moore
Sustainability Manager



Green Business of the Year 2021

The national utility also retains the title of Green Large Organisation of the Year

After another hugely successful year for its sustainability programme, Gas Networks Ireland was named Green Business of the Year 2021, and for the second year running the national utility also won the Green Large Organisation of the Year from Green Awards.

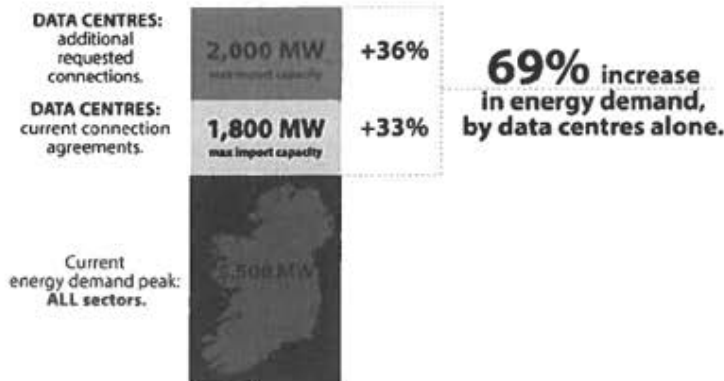
20

Another example of greenwashing is Energia, with radio and website advertising stating that they supply 100% renewable energy yet fail to mention that they import one third of Ireland's gas supply and provide [fossil] gas to 25% of the largest [business] as users in Ireland.

Again to quote their website on wind energy, '*Green energy is an alternative source of electricity. It's also known as renewable energy as it has little-to-no harmful effects on the environment.*' This is false advertising as all renewable energy has embodied carbon and detrimental impacts on environment and wildlife due to the extraction of raw materials and during production, construction and operation.

Data Centre Policy

Data centres are increasing energy demand at unprecedented speed, all this during a Climate and Biodiversity Emergency. According to Eirgrid cumulative energy demand by data centres was projected at 33% of all Irish electricity consumption by 2030. However Eirgrid has also stated that the national peak demand for all sectors is 5,500MW and they have reported that current connection agreements and current requested connections for data centres (in total about 115 data centres nationwide), would add an increase 3,800MW, which is the equivalent of a 69% increase in peak demand.



Source: Info: Eirgrid, Graphic: Shule Must Fall

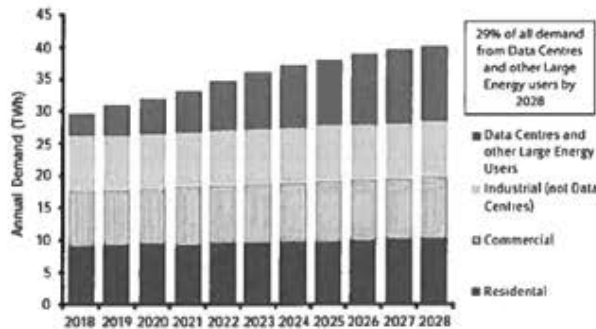


Figure 9 - For the Ireland Median Demand scenario, this illustrates the approximate split into different sectors. Eirgrid estimate that 29% of total demand will come from data centres by 2028

The Irish Academy of Engineers published a report estimating that an "investment of €9 billion" will be needed in the Republic's electricity sector over the next eight years to meet increased demand for power for data centres. It was unclear to them how this would be funded. Any public investment must be going towards renewable generation and reducing energy demand and never towards increasing demand by private companies, especially while the global climate is so unstable.

Big tech companies are also buying up many solar and wind farms for a private connection, while these solar and wind farms should be publicly owned in order to reach our goal of 70-80% renewable generation target by 2030.

<https://irishsolarenergy.org/data-centres-get-green-light-to-connect-with-solar-and-wind-farms/>

Government is again prioritising industry over residential, small businesses and public energy needs. It has been an uphill struggle to get money back for surplus generation sold back to the grid and for schools and houses it was equally difficult to get permission for solar generation, simply because legislation was being held back by government and industry.

One data centre application even claims to fulfil their climate neutral aim by buying more than 100% of GNI's total biomethane capacity. Given that the data centres cannot run solely on the grid, they are required and encouraged by the government to have on-site power plants and diesel back-up generators. One data centre proposed in Ennis has a 200MW demand, equivalent to the energy demand of 210,000 houses, or all the houses in counties Clare, Limerick and Kerry combined. Given the estimated emissions due to the fossil fuel generators it would be the twelfth largest polluter in Ireland, emitting 657,000 tonnes CO₂e.

The latest government policies to support unjustifiable numbers of fossil fuel powered data centres to be built is reckless. Singapore placed a moratorium on data centre development when they reached 7% of the country's energy demand, in Ireland they have surpassed the 14% already, and are still rising.

Due to increased demands by these large energy consumers, gas and electricity prices are rising rapidly. This cannot be used as an excuse to build LNG terminals or storage to import (fracked) fossil gas or increase indeginious fossil gas availability and consumption. The development of new fossil gas infrastructure, together with uninhibited data centre growth, which are immorally protected by ETS credits, means even more extreme reductions for all other sectors including agriculture, and actual greenhouse gas emissions per capita will rise and there will be outright abandonment of climate commitments and failure by government and state bodies to protect citizens from the worst effects of climate collapse, simply to accommodate big tech investors and the fossil fuel industry.

It is important that the Department of the Environment, Climate and Communications sets out a long term strategy based on scientific evidence and input from the state bodies Eirgrid and the CRU relating to energy security. This long term strategy must not be influenced by the Industrial Development Agency (IDA), Taoisigh, Tánaistí and other politicians' (false) statements only having regard for short term benefits for the economy or re-election.

<https://www.independent.ie/irish-news/no-ban-on-building-data-centres-here-says-taoiseach-micheal-martin-41859325.html>

Micheál Martin: Data centres are not the new villain



Taoiseach Micheál Martin said the amount of energy needed to power data centres is not a 'black and white issue'. Picture: Karlis Dzjamko

MON, 22 AUG, 2022 - 15:44

PÁDRAIG HOARE



Data centres "are not the new villain", and "should not be blamed for all our energy problems", according to both the Taoiseach and the Tánaiste.

Micheál Martin linked the importance of foreign direct investment and jobs to the question around the vast energy needed to power data centres, claiming it is "not a black and white issue".

Similarly, Leo Varadkar said he is "not a cheerleader for data centres", but claimed "a lot of the facts are not coming across, unfortunately" when it comes to the power and emissions associated with them.

"We will be having further meetings with the CRU [Commission for the Regulation of Utilities] and with Eirgrid in respect of this. We had meetings late last year in respect of this, we gave sanction to emergency procurement of generation in an unprecedented way," Taoiseach Micheal Martin said.

"Economist John FitzGerald has blamed the energy regulator for failing to forecast energy capacity shortages. Now it would be necessary to "scrabble around" for emergency generators which were "scarce on the ground", he said. The IDA continued to "sell" data centres when the energy capacity was not there, and there was a need to look at the energy market structure for the future, he told Newstalk Breakfast on Tuesday."

Irish Times article 'Martin pledges to ensure energy supply for industry', 23rd Aug 2022
<https://www.irishtimes.com/ireland/2022/08/23/martin-pledges-to-ensure-energy-supply-for-industry/>

It must also be mentioned that the coalition parties frequently speak in favour of data centre development and voted against motions and moratoriums which would protect Irish citizens from the health hazards of data centres, which are generated by their own fossil gas and diesel back up energy. The very same week it was decided without a vote in the Dail to make data centres strategic infrastructure.

Fair Share

Industry must reduce more significantly than consumers. The free allocation of credits through the EU Emissions Trading Scheme (ETS) for the energy sector, manufacturing industries and aviation must not continue.

The practice of giving special treatment to industries which are at significant risk of carbon leakage to support their competitiveness in the form of carbon credits is criminal. This shows that governments are completely complicit with industry in the destruction of this planet.

Local authorities and An Bord Pleanála cannot simply use ETS credits to 'make emissions disappear' when it comes to accounting for Irish and EU climate targets. The emissions still occur and the local pollution impacts of these industries are killing people and wildlife.

The campaign to encourage households and businesses to reduce energy by turning down the heating and to use '*electric cookers, showers, kettles, washing machines and hair dryers efficiently and outside peak hours of 4-7pm*' is extremely insulting when the government is actively increasing energy demand through incentivising industrial growth, data centre development and giving immunity to the largest industrial energy consumers.

<https://www.gov.ie/en/press-release/7b221-reduce-your-use-government-launches-nationwide-campaign-to-encourage-energy-efficiency-and-highlight-supports-available-for-households-and-businesses/>

Aughinish Alumina currently uses 11% of Irish gas demand for the extremely dangerous and destructive refining processes. An Bord Pleanála recently granted permission for the plant to expand and to extend production to 2039, ignoring environmental impacts and climate targets.

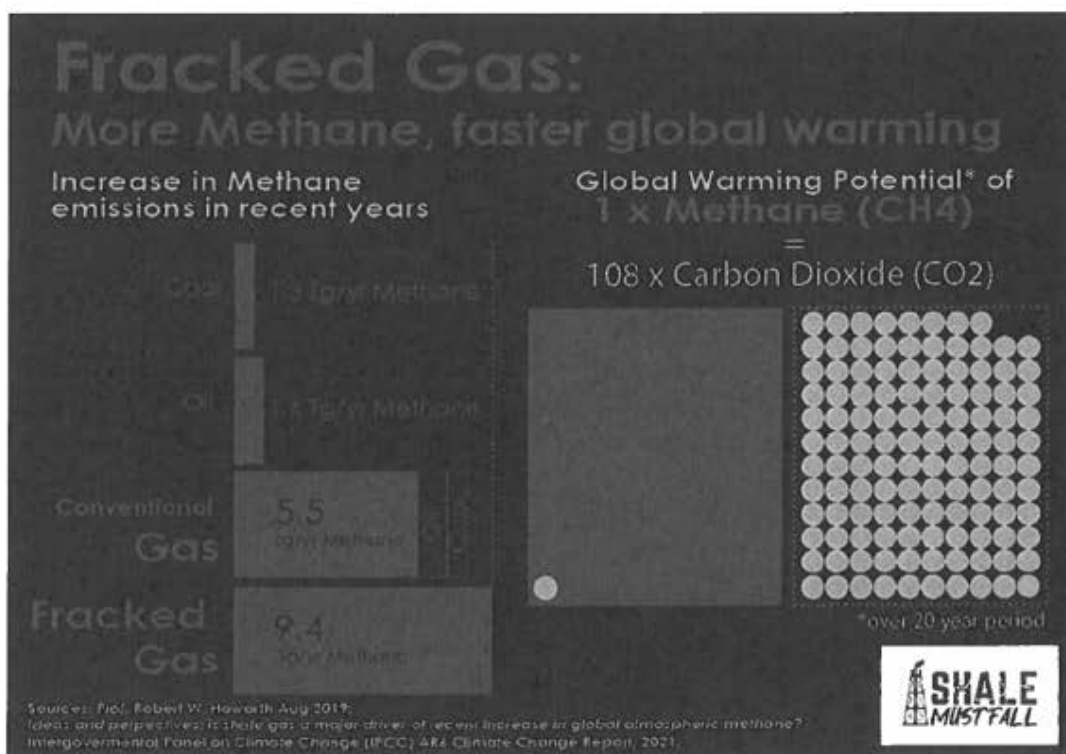
Alternatives to Coal

Replacing coal with fracked fossil gas will not help to meet climate targets. Professor Robert W. Howarth, from Cornell University, has written several papers on fracked and conventional gas and how their methane emissions badly affect global warming. He clearly states that so called 'natural' gas is most definitely *not* a 'cleaner' fossil fuel. 'Natural' gas is most definitely not a 'bridge' fuel nor a 'transition' fuel.

His studies show that methane (CH₄) has a global warming potential of 87 times more than carbon dioxide over a 20-year period. The IPCC itself in 2013 said,

"there is no scientific argument for selecting the 100 years compared with other choices. The choice of time horizon... depends on the relative weight assigned to the effects of different times..."

Since then the IPCC have acknowledged that new scientific evidence shows that methane has a global warming potential that is in fact 108 times higher than Carbon Dioxide over a 20 year period.



Given all the scientific warnings and that the climate tipping points and the looping effects of global warming are actually happening faster than expected, it is reasonable and logical to use the most relevant equivalents and in the case of methane this is the 20 year period. EU and Irish regulations currently do not use the 20-year Carbon Dioxide equivalent (C02e) of Methane but the 100-year equivalent when reporting and projecting Greenhouse Gas Emissions. Given the scientific warnings of the urgency to reduce emissions this is an inaccurate and dangerous weighting in favour of methane-rich (fracked) fossil gas and is allowing industries to pollute above safe thresholds.

Other studies are showing that industry and governments generally assume that flares remain lit and destroy methane thus increasing the actual effects of fossil gas.

'Research shows oil field flaring emits nearly five times more methane than expected'

<https://www.npr.org/2022/09/29/1125894105/oil-field-flaring-methane-report>

'This represents a fivefold increase in methane emissions above present assumptions and constitutes 4 to 10% of total US oil and gas methane emissions, highlighting a previously underappreciated methane source.'

<https://www.science.org/doi/10.1126/science.abq0385>

Global Methane Pledge

In a joint statement from the EU including Ireland, and the US, committed to the following:

"Scientific recommendations have led to the introduction of a Global Methane Pledge which will be formally launched at COP26 in Glasgow. The co-convenors Frans Timmermans (EU), John Kerry (US) and Inger Andersen (UNEP) affirmed the critical importance of rapidly reducing methane emissions as the single most effective strategy to reduce near-term global warming and keep the goal of limiting warming to 1.5 degrees Celsius within reach. 9 of the world's top 20 methane emitters are now participating in the Pledge, representing about 30% of global methane emissions and 60% of the global economy."

https://ec.europa.eu/commission/presscorner/detail/en/IP_21_4785

Ireland and the US have signed this pledge. The actual full life cycle greenhouse gas emissions of STEP are not reflected in this application. It would be contradictory to the principles of this pledge to develop STEP which would increase methane emissions of both nations resulting in an increase of overall global methane emissions.

The Irish government must stop the war profiteering together with the fossil fuel industries and make the necessary and urgent switch from fossil gas. To quote Bill Hare, the chief executive of Climate Analytics; *"What's particularly worrying is the rise in fossil gas power generation despite the availability of low-cost and healthier alternatives," he said. "The ongoing crisis resulting from shocks like the pandemic and Russia's invasion of Ukraine has shown very clearly how continued reliance on fossil fuels is not only bad for the climate but also comes with serious security and economic risks."*

<https://www.theguardian.com/environment/2022/oct/26/cut-meat-consumption-save-planet-climate-crisis-fossil-fuels>

Human Right Violations of Fossil Fuel Economy

The 'International Human Rights Impacts of Fracking Report' published by LLM candidates in International Human Rights Law at the Irish Centre for Human Rights (ICHR), NUI Galway, Rowan Hickie and Bridget Geoghegan, lists some of the 'risks of harms' caused by fracking to include,

'detrimental impacts on water, air, climate stability, public health, farming, property values, and economic vitality.'

In addition the report states that;

'certain communities and persons are disproportionately impacted by fracking, including pregnant women, children, communities of colour, Indigenous peoples, and communities living in poverty.'

Fracking, as all fossil fuel extraction and burning, is a threat to human rights due to its known contribution to climate breakdown at an international level. A whole suite of international agreements and treaties contain rights which are impacted, include the Paris Agreement (2015) and the following treaties;

- *The International Covenant on Civil and Political Rights (ICCPR);*
- *The International Covenant on Economic, Social and Cultural Rights (ICESCR); The United Nations Convention on the Rights of the Child (CRC);*
- *The United Nations Convention on the Elimination of All Forms of Discrimination against Women (CEDAW);*
- *The United Nations Convention on the Rights of Persons with Disabilities (CRPD);*
- *The International Convention on the Elimination of All Forms of Racial Discrimination (ICERD).*

European States also have obligations under the European Convention on Human Rights (ECHR) to address the rights and freedoms contained within the convention.

Many of the causes of impacts, on human rights and on biodiversity, by the fracking industry would overlap with other fossil fuel industries in general. The energy Security of Ireland must not depend on fracking or the increase of fossil fuel demand and the expansion of its infrastructure due to the following impacts of (fracked) gas production:

'the right to life,

the right to health,

the right to water,

the right to food,

the right to housing,

the right to access to information,

the right to public participation,

the right to a clean and healthy and sustainable environment,

with violations of these rights having disproportionate impacts on marginalized and vulnerable communities and groups.'

Stranded Assets and Subsidies

Energy Charter Treaty (ECT)

Ireland needs to withdraw from the Energy Charter Treaty with immediate effect, if serious about making the necessary steps for climate. The ECT is a controversial trade agreement that allows fossil fuel companies to sue governments, often in secret, for billions of euros over policies that jeopardise their investments for example if a government tries to stop existing or future fossil fuel projects in the name of climate action. It is therefore not aligned with the Paris Climate Agreement.

Italy has left the ECT in 2016. Spain, Poland, the Netherlands and France have already committed to withdrawing from the ECT and Germany and Belgium are also considering leaving. When leaving the ECT as a block the EU countries can avoid the 20 year sunset period and make a strong statement to polluting industries.

<https://www.theguardian.com/world/2022/oct/21/france-becomes-latest-country-to-leave-controversial-energy-charter-treaty>

The European Energy Agency issued a report in 2016 that illustrates that:

'past trends of extending the life of large fossil fuel power plants (at or above 200 MWe capacity) or building new ones would clash with the EU's best-case decarbonisation scenarios as set out in the EU's Energy Roadmap 2050, resulting in fossil fuel overcapacity.'

Currently, according to the Council of European Energy Regulators (CEER) Report 2019, existing EU LNG terminals are operating at only 27% capacity. The final report by Artelys released in January 2020, states that a further €29 billion of public funding is proposed to be spent on new gas infrastructure, 'most' of which are 'unnecessary'. Under normal market conditions, the existing gas infrastructure in Europe in 2030 suffices even under 'high demand' scenarios. This existing gas infrastructure is also 'resilient enough to a wide range of extreme disruptions' and therefore any new gas infrastructure would be 'at risk of becoming stranded assets'. In any case they will definitely be harmful to global climate breakdown mitigation if the EU continues to create a market for (fracked) fossil gas.

Even now with Putin's invasion of Ukraine, it is very clear according to Bill Hare (Climate Analytics CEO) that continued reliance on fossil fuels has '*serious security and economic risks*' and that we should move to '*low-cost and healthier alternatives*'.

<https://www.theguardian.com/environment/2022/oct/26/cut-meat-consumption-save-planet-climate-crisis-fossil-fuels>

Global Energy Monitor's CEO has also stated that fossil fuels have no place in the future and that EU gas consumption must decrease rapidly;

'EU risks locking itself into a more polluting future or wasting billions on infrastructure.

EU's ambitious climate targets require gas consumption to drop sharply by 2030 and continue dropping to 2050.

The fossil fuel era has passed.'

**Investor-State Dispute Settlement and Investor Court Systems;
*an additional challenge to climate mitigation law.***

Gas infrastructure usually has a lifespan of several decades and therefore new investments now would lock us into the fossil fuel market for the coming decades and because of the ISDS clauses in treaties like the Energy Treaty Charter and the equally dangerous ICS clause of CETA potentially leave Irish citizens open to extreme financial claims for future perceived losses by the industry when Ireland tries to pull out of the fossil fuel market for climate mitigation reasons. RWE, a German fossil fuel corporation, is suing the Netherlands for €2b for shutting down a coal plant on climate change mitigation grounds. As mentioned many countries are now removing themselves from the Energy Charter Treaty and are wary of signing up to any ISDS/ICS clauses because they are most commonly used by the oil and gas industry, mining or energy corporations and two-thirds of cases are used to challenge a country's environmental protection laws.

The IMF found the production and burning of coal, oil and gas was subsidised by \$5.9 trillion in 2020. That is taxpayers' money being poured into the fossil fuel industries which are known drivers of climate collapse and human and other-than-human suffering. Instead this money must be invested in a sustainable future and reducing energy demand. Subsidies, like PCI funding, towards fossil fuels must stop immediately as each new fossil gas infrastructure project is delaying the switch to renewables, wasting finite natural resources and contributing to faster climate breakdown and an irrational and immoral expenditure of tax-payers' money as they will become stranded assets.

Community Based Energy Solutions

Community Energy

The review must support community, including household, energy efficiency and locally owned renewable energy systems. The energy security review report fails to properly address energy security needs and opportunities at household and community level. Ireland needs to support increased energy efficiency, household energy generation, community owned renewable energy generation and storage, as energy security measures. EU initiatives on "renewable energy communities" run by cooperatives need to be supported in Ireland.

Major barriers exist for community energy generation initiatives in terms of grid connection. It is financially prohibitive and bureaucratically onerous. ESB networks must be mandated to actively support the connection of community energy generation to the grid. If a community is willing to raise capital to invest in renewable energy infrastructure then the state must support their actions. Investment in clean-energy infrastructure must be prioritised ahead of fossil fuel development if we are to meet our climate commitments. Communities must be resourced, facilitated and empowered to be involved in co-creating the energy security in Ireland.

Decentralisation of and greater diversity within our energy systems will build resilience across the network.

Diversity of energy generation

It is important that energy generation is diverse and that methods used are the least intrusive on nature. Where possible, nature-based and micro-generation solutions should be used as these are then accessible to communities and individuals and often have much smaller carbon footprints and environmental impacts.

'The government must encourage the diversity of supply and set national sub-targets to roll out innovative and diverse renewable sources like wave, hydro and tidal energy, besides the wind and solar PV already in use. Collectively these renewable sources can provide decarbonised and balanced energy at any point in the day, season or year.'

<https://electricenergyonline.com/article/energy/category/hydro/86/927747/europe-must-diversify-its-renewable-energy-supply-to-avoid-future-shocks.html>

Good practices for renewable energy development

The International Union for Conservation of Nature (IUCN) and The Biodiversity Consultancy (TBC) have started since the 4th October 2022 a project to examine *'how the rapid acceleration of wind and solar development can avoid unintended impacts on nature and people.'* and *'to identify criteria and tools for selecting the most optimal locations criteria for solar and wind energy development'.*

To minimise impact in the responsible production of raw materials used in renewable energy components will also be explored by this project.

"As renewable energy is scaled up to meet global energy and climate change targets that contribute to a sustainable and equitable energy transition, we need to explore how spatial planning and cumulative impact assessments can be integrated into this development to avoid unintended impacts on biodiversity and people".

Rachel Asante-Owusu, Programme Manager with IUCN's Climate Change Team

<https://www.iucn.org/news/202210/conservationists-and-companies-join-forces-identify-good-practices-renewable-energy>

Rights of Nature

Rights of Nature is *"the recognition that our ecosystems – including trees, oceans, animals, mountains – have rights just as human beings have rights. Rights of Nature is about balancing what is good for human beings against what is good for other species, what is good for the planet as a world. It is the holistic recognition that all life, all ecosystems on our planet are deeply intertwined. Rather than treating nature as property under the law, rights of nature acknowledges that nature in all its life forms has the right to exist, persist, maintain and regenerate its vital cycles. And we – the people – have the legal authority and responsibility to enforce these rights on behalf of ecosystems. The ecosystem itself can be named as the injured party, with its own legal standing rights, in cases alleging rights violations. For indigenous cultures around the world, recognizing rights of nature is consistent with their traditions of living in harmony with nature. All life, including human life, are deeply connected. Decisions and values are based on what is good for the whole."*
– <https://www.gam.org/rights-of-nature/>

The expansion and continued use of fossil fuels violates the Rights of Nature and therefore is a risk to the future of humanity.

Ecocide has been tabled at the UN again

The Independent Expert Panel for the Legal Definition of Ecocide convened by the Stop Ecocide Foundation, in June 2021 declared the following legal definition for ecocide,

"ecocide" means unlawful or wanton acts committed with knowledge that there is a substantial likelihood of severe and either widespread or long-term damage to the environment being caused by those acts.'

Efforts are being made that ecocide will be finally included in the Statute of Rome along side the existing four Crimes against Peace; Crimes against Humanity, Genocide, War Crimes and Crimes of Agression. The Stop Ecocide Foundation includes fracking as a form of ecocide because of the extensive contamination of water, land and air caused during the process.

Since 2017 Ireland has banned on-shore hydraulic fracturing and it would be hypocritical of Irish authorities and elected representatives to facilitate New Fortress Energy in subjecting other communities and ecosystems to the Human Rights and Rights of

Nature violations involved in the extraction and burning of fossil fuels. Expanding the existing fossil gas infrastructure and developing new pathways to import vast quantities of (fracked) fossil gas into Ireland and the EU sets a very dangerous precedent for even larger scale (fracked) fossil gas consumption and a possible excuse to grant current fracking licence applications in Northern Ireland. These in themselves will destroy communities and ecosystems on both sides of the border. And because of the single market energy mix, even challenge the Irish ban on fracking and be detrimental to achieving the climate targets of 2030 and 2050.

During the United Nations General Assembly 2022, the president of Vanuatu brought forward the call to include the crime of ecocide in the Rome Statute and asked for other nations to join.

"We call on states to join the group of nations proposing to include the crime of ecocide in the Rome statute. Acting with the knowledge of severe and widespread or long-term damage to the environment can no longer be tolerated."

<https://www.stopecocide.earth/breaking-news-22/vanuatu-president-calls-for-ecocide-law-at-un-general-assembly>

At the same Assembly, the Vice President of the Republic of Panama, José Gabriel Carrizo, gave a powerful speech and argued that "the time has come for the world to have an international body to hold accountable all those who cause damage to the planet".

During the same speech he launched some key questions:

"How can we earn the trust of new generations while the planet where we live and our descendants will have to live is being decimated before their eyes?"

"How many more lives must be lost?"

"How many more natural disasters must occur?"

And to end with

"When is ecocide going to stop?"

<https://www.youtube.com/shorts/64JizqnB1Po>

<https://www.stopecocide.earth/breaking-news-22/panama-vice-president-speaks-on-ecocide-at-un-general-assembly>

Conclusion

By definition, Security is *'the state of being free from danger or threat.'*

Security cannot be provided by continuing to use or promote fossil fuels, by building new fossil fuel infrastructure and developing limitless energy infrastructure for a species that is living well beyond the capacity of this planet.

The Irish government, authorities and semi state companies in their expansion of fossil fuel infrastructure and demand are playing their part on a local and global level in Ecocide and Crimes Against Humanity.

Nikenike Vurobaravu, the Vanuatuan president called for a 'no future in fossil fuel' during the latest UN General Assembly:

"We call for the development of a fossil fuel nonproliferation treaty to phase down coal, oil and gas production in line with 1.5C and enable a global just transition for every worker, community and nation with fossil fuel dependence,".

The Irish Government must sincerely consider this call if it is serious to its Climate ambitions and wants an security of energy supply on this island.

We would like to end with the following quote by Professor Johan Rockström:

The world is coming "very, very close to irreversible changes... time is really running out very, very fast".

<https://www.theguardian.com/environment/2022/oct/27/world-close-to-irreversible-climate-breakdown-warn-major-studies>

██████████ on behalf of the members of Futureproof Clare.

