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Newsletter #17 (Aug 2024)

In this month's newsletter...

Electric Picnic Poll: *Should Ireland remove its nuclear ban and assess all forms of clean energy?* **YES 262 (87%);** NO 10 (3%); Maybe 28 (9%)

Most said they were appalled that nuclear is excluded from official Irish studies, others objected to local wind & solar planning permissions while others believed that nuclear energy would greatly benefit Ireland.

[Co-locating data centres with nuclear is reported as fastest, cheapest way for them to deliver](#) economic competitiveness & national security.

Constellation Energy said co-location can serve new loads [where grid operators can't upgrade the system as needed](#) for new resources.

Dominion Energy may directly connect clean energy from Millstone Power Station (Connecticut) to [power data centres](#), particularly for AI

Ireland's Energy Policy has failed, as it:

- **denies Grid access** to large users, [including Google](#)
- has some of the EU's **highest electricity costs** (see graph below)
- and the **lowest % Renewable energy**.

Our energy policy misses its targets; lacks rigorous assessment; and is based more on hope than on technical viability and availability.

We finish with a good piece on **waste** ("it's only waste if you waste it")!

18for0 to attend the European SMR Alliance!

We plan to attend meetings in September and October of the European Commission's [SMR industrial alliance](#), which aims to accelerate development,

demonstration and deployment of SMRs in Europe.

Nuclear for Ireland

Missing 2030 carbon emissions targets to cost Ireland [at least €8.2bn](#). Why doesn't the Climate Change Advisory Council advise Government on the potential of nuclear to address this appalling failure after 2030?

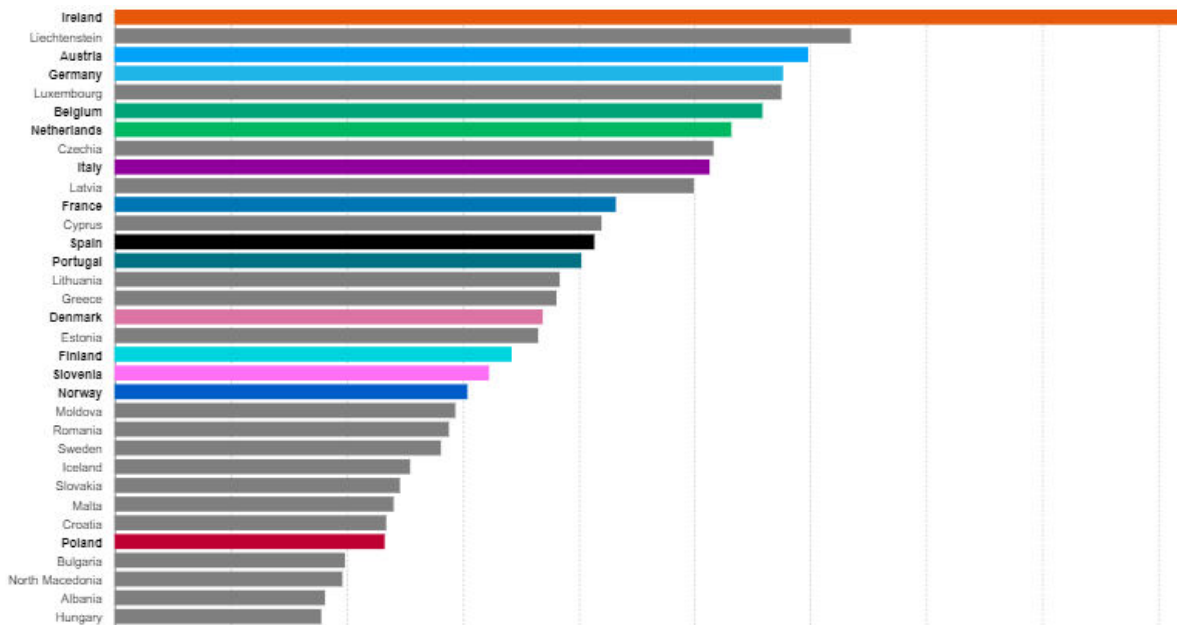
Our clean energy transition is the **most expensive undertaking in the State's history**, but government won't assess viable options like nuclear to discover the fastest and most cost-effective way to make the transition. What motivates such a **baffling policy**?

Ireland's ideal SMR advances in Canada (Ontario Power Generation)

Early [site preparation is complete](#) on a small modular reactor to be built in Ontario, Canada by 2028. We highly recommend **site visits** to assess the significant potential of this [GE-Hitachi 300MW SMR](#) for Ireland.

Ireland's electricity was the [most expensive](#) in the EU in 2023 (graph below). Poor energy policy causes higher costs and is bad for our economy and our society. Nuclear-powered France, Finland, Spain, Sweden etc had much cheaper electricity.

This again shows that, while renewables may be marginally cheaper to install, **nuclear energy actually supplies cheaper electricity**. That our leaders won't act on this paradigm is increasingly baffling.



Nuclear: Europe

Nuclear output up 2.6% in 2023 - [International Atomic Energy Agency](#)

- Nuclear supplied ~ 10% of 2023 global generation (>2,600 TWh)
- 2nd largest source of global electricity, after hydro
- 64 reactors being built around the world
- Extend existing reactor life & increase capacity to meet climate goals

Rolls-Royce SMR at final step of UK approval

[Rolls-Royce's small modular reactor passed step 2 of the three-step generic design assessment](#) by the UK Office for Nuclear Regulation.

Holtec SMR completes first step of UK approval

The Holtec SMR-300 small modular reactor [has started Step 2 of the UK generic design assessment process](#), projected to take 14 months.

Poland Earmarks \$1.2 Billion to Start First Nuclear Plant

Poland will allocate \$1.2 billion in its 2025 budget for the initial phase of its [first nuclear power plant](#). The power station on the Baltic Sea should cost nearly \$16 billion through 2030 and be operating within a decade.

Nuclear: USA, Canada & Global

China authorizes 11 nuclear new reactors

[11 nuclear reactors](#) in 5 locations to cost \$31 billion. China will be the top nuclear generator worldwide by 2030, ahead of USA and France.

Younger US voters support building new nuclear stations

[80% of 1st time US voters support building new nuclear](#). The pollster believes younger people don't accept not building nuclear because of perceptions around 'not in my backyard' and nuclear waste.

Hong Kong's Clean Energy Future Will Be Mostly Nuclear

[Hong Kong will mainly import Chinese nuclear energy](#) to meet its 60% to 70% carbon-free energy goal by 2035. "Nuclear power is more stable and dispatchable. Renewable energy is intermittent, and would need other measures to make sure of a stable power system."

SMR project receives major funding in Tennessee

The Tennessee Valley Authority now approves \$350 million for design and development of GE Hitachi's BWRX-300 SMR at Clinch River.

51% of US adults in a poll back more nuclear

[Most US adults support expansion of nuclear energy](#). 56% support an increase in nuclear power plants, and 41% think the US government should encourage nuclear production

Work Begins On First Gen IV Nuclear Plant In US

Kairos Power broke ground on the [first US-approved demonstration Generation IV reactor](#) that could become operational by 2027. It uses tristructural isotropic particle fuel and molten fluoride salt coolant.

Kenya Aims To Build Nuclear Power Plant By 2034

[Kenya may build its first nuclear power plant](#) within 10 years at a cost of around \$3.9 billion. Although it should enhance energy capacity, cut carbon emissions and increase job opportunities, it faces opposition from activists who cite safety and environmental issues.

What About the Waste?

A common but easily answered question concerns 'The Waste'. These 3 items outline the small amounts of nuclear waste created given the amount of energy produced, and how it is safely managed.

Picture: See [what 45 years of used nuclear fuel](#) from a North American nuclear power plant looks like.

Video: [How I learned to Stop Worrying and Love Nuclear Waste](#)

Article: Did you know that nuclear waste can be an asset, not a burden. The International Atomic Energy Agency discusses the key benefits of [using fast neutron reactors in a closed fuel cycle](#):

1. It can be 60-70 times more fuel efficient
2. Much less waste is generated
3. The waste is only radioactive for ~250 years, not thousands of years

Outreach

Cabinet's short-sighted, unhelpful and unnecessary **ban on building nuclear reactors in Ireland** - in The Planning and Development Bill 2024 - has serious negative implications for the effectiveness and cost of Ireland's clean energy plans, and should be reversed.

Sensible energy policy and a credible decarbonisation plan must feature in Ireland's next general election. Excluding nuclear from our energy policy puts us at a significant disadvantage internationally and seriously jeopardises our chances of achieving Net Zero by 2050. Meanwhile, support for nuclear energy is growing steadily here.

Please email [TDs and Senators](#) - start with this [sample letter](#) - if you **disagree with the bans on Irish nuclear energy and want a more inclusive and credible Irish energy policy.**

We can address your local club, village or extended group of friends. Please [get in touch](#) to arrange an event, either online or in person.

Have you ideas about how to engage more people in **our message of hope** for an affordable clean energy future? [Contact us here](#)

Helpful 18for0 Links

- [18for0 Objectives](#)
- [18for0 Publications](#)
- [Got questions? See our FAQ!](#)
- [Would you like to get involved? Reach out to us!](#)
- Got this newsletter via a forward? Subscribe [HERE](#)

18for0 - an Irish voluntary group of professionals - firmly believe that Ireland must assess every technology for its ability to assure our clean energy future. After all, if we haven't got all the information, how can we know that we're making the right decisions?

This newsletter is important to us, as it keeps you updated on relevant developments about nuclear energy suitable for Ireland, confirms your vital part in our community and lets you know what we've been up to.

We welcome any [ideas, help or feedback](#) that you might like to offer.

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