



Endgame

A zero-carbon
electricity plan
for Ireland

Executive Summary



Carbon emissions from Ireland's electricity sector could be cut from almost ten million tonnes annually to under two million tonnes by 2030 according to a new report from energy specialists Baringa and published by Wind Energy Ireland.

The report also sets out a more long-term pathway to a zero-carbon electricity system where a combination of fair carbon pricing, long duration storage and green hydrogen will eliminate the need for fossil fuels in the Irish electricity system.

Key findings:

- Reducing power sector CO₂ emissions in Ireland from around 9 million tonnes today to a target of less than 2 million tonnes of CO₂ per year is very achievable by 2030, using the approach currently underway to achieve the '70 by 30' target, and implementing more of existing and proven technologies.
- The current Programme for Government renewable capacity targets of 8.2 GW of onshore wind and 5 GW of offshore wind by 2030 should be maintained, with an additional target of 5 GW of solar PV.
- This target can be achieved at a lower cost to the end consumer in Ireland, compared to delivery of the less ambitious '70 by 30' target.
- A zero-carbon power system is possible by 2030 and represents an achievable target in the 2030s.
- Realising this target requires incremental investment in a suite of technologies new to Ireland, and the implementation of a carbon price floor in the I-SEM.



Download:

[Endgame: A zero-carbon electricity plan for Ireland from windenergyireland.com.](https://windenergyireland.com)

Making the right choice for Ireland

Now, it is clear that it is a choice.

If there is one thing **Endgame: A zero-carbon electricity plan for Ireland** shows it is that the amount of CO₂ that will be emitted from our electricity system in December 2030 is a choice – perhaps more a series of choices – which we will make between that day and this.

Decarbonising Ireland's electricity system to fewer than 2 million tonnes of CO₂ a year or even, potentially, to zero is not a question of resources. We have the investment, private and public, to develop the renewable energy and the infrastructure we need, and we can do it at a good price for the electricity consumer.

We lack neither expertise nor skill. We are world leaders in the integration of renewable power, we have more than 5,000 men and women working in an onshore wind energy industry that can compete with the best in the world and growing international experience attracted to our offshore wind opportunities.

And, most fundamentally, it is not a question of technology. We can decarbonise our electricity system by relying on proven technologies. Wind energy already – just with onshore wind farms – provides a greater share of our electricity demand in Ireland – 36% – than anywhere else in the world. We also have some of the best offshore wind resources in the world.

Globally, the price of wind and solar is continuing to plummet and, with the right policy choices, prices will fall here too.

The tools we need

We have the tools we need to decarbonise our electricity system if we choose to use them.

Or we can make the other choice, the one that in Ireland we traditionally make.

Where we choose to aim for the minimum, as little as we can get away with, and then still choose to fall short.

Where we choose to take the easy option, to leave it to the next government to fix, the next generation, passing the ball further and further down the line until it is eventually too late. Where we take comfort knowing the responsibility for our collective failure can always be represented as someone else's fault.

When we choose only to see the barriers and not the opportunities, only the reasons why we cannot do things and never the case for why we must.

We can choose more plans, more reviews, more consultations or we can choose to act.

We, the Irish people in making a collective decision, can choose to dramatically decarbonise our electricity system within nine years and even to eliminate carbon from it entirely.



Five key requirements

This report sets out in detail the choices we must make over the next 9-10 years but, in essence, there are five key requirements.

- First, we must deliver the targets set out in the Climate Action Plan and the Programme for Government. We need an additional 4,000 MW of onshore wind, 5,000 MW of offshore wind and 5,000 MW of solar power. We know we have the pipelines to deliver these targets.
- Next, we need to replace our fossil fuel based back-up generation with zero-carbon technologies like battery storage, demand side response and synchronous condensers. We can ensure the stability of our electricity system with cheaper and cleaner zero-carbon alternatives.
- Then we need to ensure that the price of carbon reflects the damage it does to our planet. Setting the carbon price floor to €100 per tonne of CO₂ by 2030 will transform the market, reflect the real cost of fossil fuels and will enable renewables to push the final remaining fossil fuel, natural gas, out of the electricity market.
- We know better than anyone that the wind does not always blow nor the sun always shine. We need a reliable source of power that can deliver when it is needed. This will be long-duration energy storage along with green hydrogen.
- Our existing gas generator fleet must be retrofitted to run on green hydrogen and any new fossil fuel plant built this decade must be designed to make conversion easy.

A stronger electricity grid

Finally, and most importantly, we need an electricity grid that is strong enough to achieve this. We cannot run a 21st century economy with a 20th century electricity grid.

We need to build critically needed new grid infrastructure like the North-South Interconnector and we must invest in EirGrid's DS3 programme to ensure that the system can, when the wind and solar is available, operate with 100% renewables.

These are real and valid choices facing us but they are not easy ones.

They will require the transformation of our electricity system, the rapid development of new renewable energy projects and real leadership stretching from the meeting rooms in Government Buildings on Merrion Square into the heart of every community, big and small, on this island.

And now we know that if we fail, it will be because we chose to fail, because we preferred the easy option, to make more excuses, to quietly hope that someone else would fix a problem we helped to create.

But now we also know that if we make the right choice, for ourselves and for our children, we will build an Ireland that is energy independent, delivering warmer homes, cleaner air and tens of thousands of new jobs, a leader in the fight against climate change, a better country in which to grow old and in which to raise our families, one which now enters the endgame for CO₂.

For our members, that is the choice we make.

Noel Cunniffe

CEO Wind Energy Ireland