

Ireland's Energy System: The Historical Case for Hope in Climate Action

Sinéad Mercier

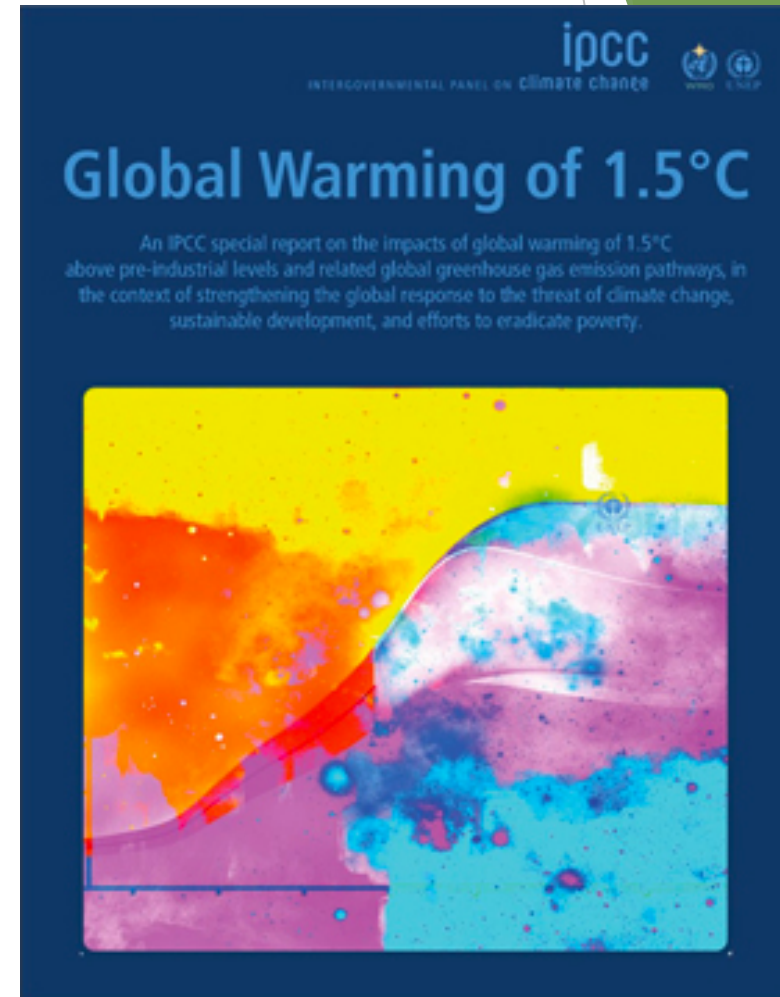
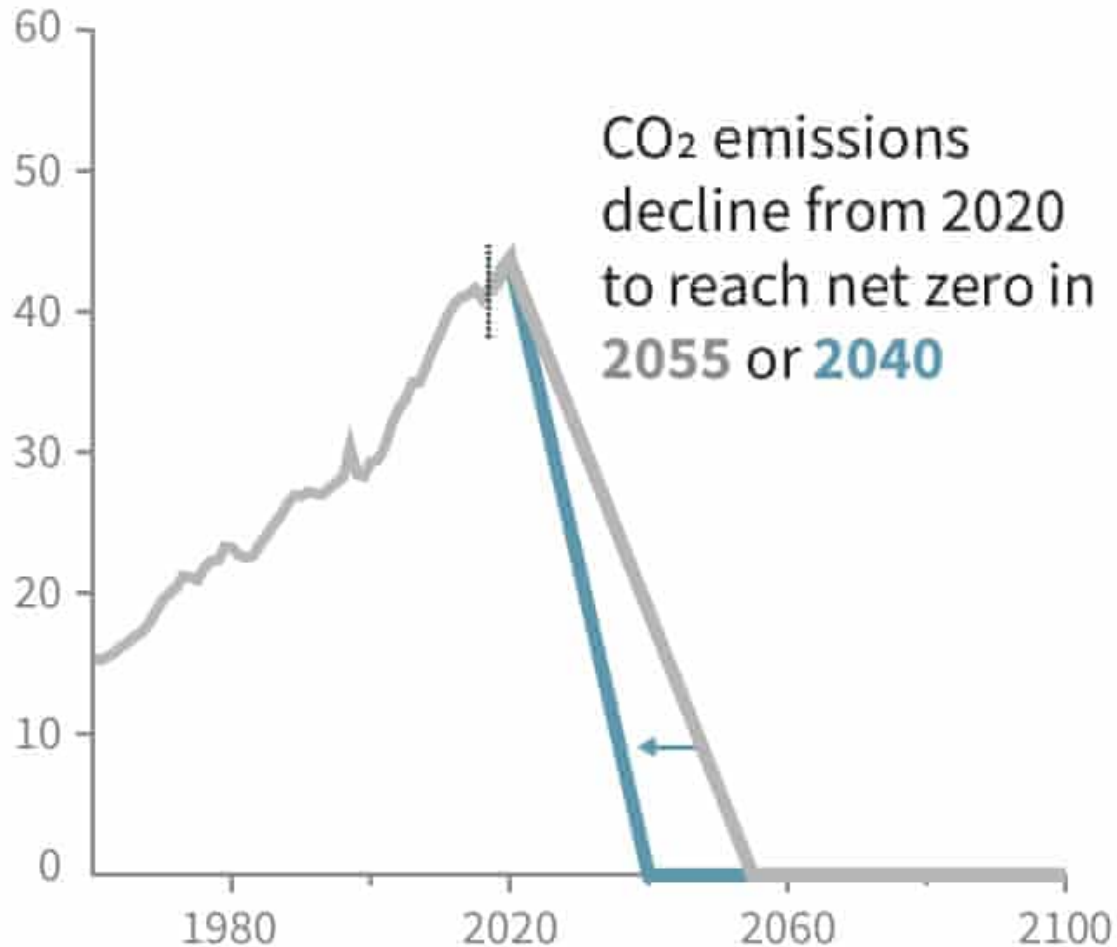
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A Significant Challenge Ahead

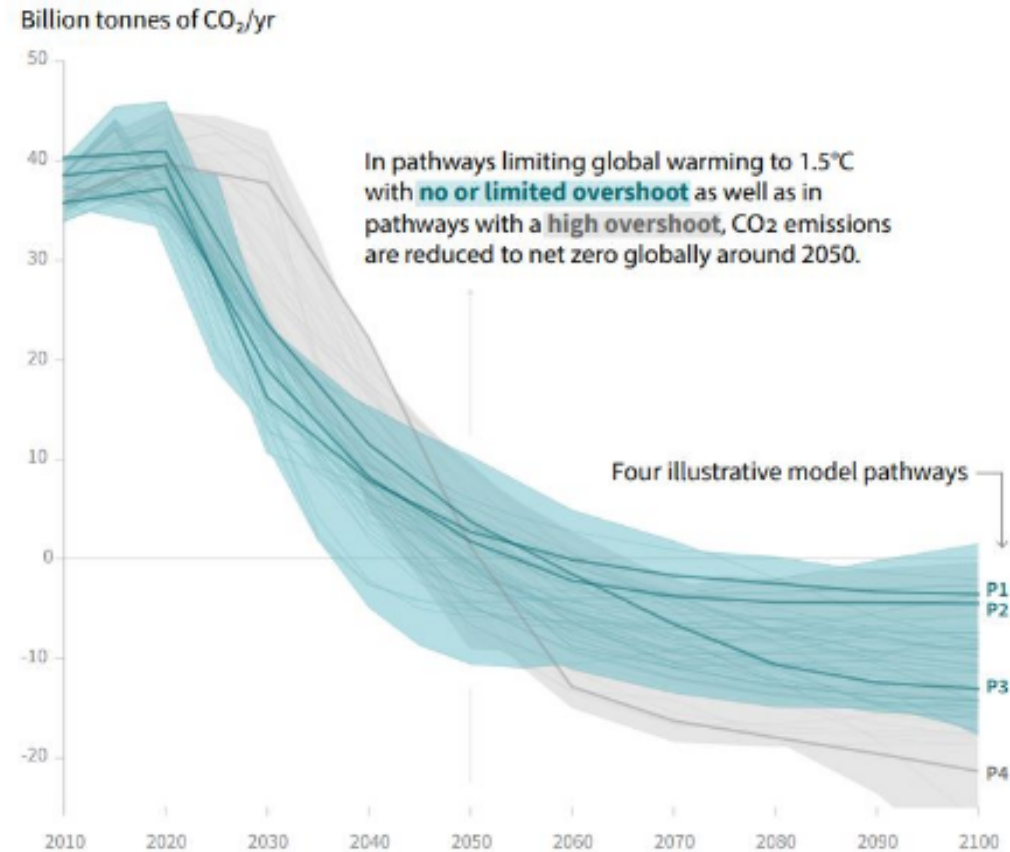
b) Stylized net global CO₂ emission pathways Billion tonnes CO₂ per year (GtCO₂/yr)



Graph: <https://www.theguardian.com/environment/climate-consensus-97-per-cent/2018/oct/15/theres-one-key-takeaway-from-last-weeks-ipcc-report>

Climate Action and Social Justice

- ▶ In September 2015, Ireland played a leading role in the development of the United Nation's 2030 Agenda Sustainable Development Goals including its principles of “furthest behind first”, and “leave no one behind”.
- ▶ This laid the groundwork for the December 2015 Paris Agreement.
- ▶ IPCC Special Report on 1.5 and the incoming 6th Assessment Report have concluded that a world in keeping with the sustainable development goals is the fastest and must sustainable means of achieving 1.5°C
- ▶ The SDGs are also “integral” to the European Green Deal.
- ▶ Most conservative climate action studies call for state-led, economic planning and action e.g. Stern Review.



Ireland's Record on Climate Change

- ▶ In 2019, Ireland declared a climate and a biodiversity emergency.
- ▶ The majority of the Oireachtas recognised that a “fundamental, system-wide reorganization across technological, economic and social factors, including paradigms, goals and values” is required to tackle these twin emergencies (IPBES 2019).
- ▶ Highest emissions levels in the EU and consistently failing to reach agreed-to climate commitments.
- ▶ Ireland will not meet current 2013-2020 EU targets for greenhouse gas emissions reductions.
- ▶ Can meet current 2021-2030 if all current plans and policies are fully implemented - including the 2019 Climate Action Plan.
- ▶ However, new EU European Green Deal commitment of a 51 per cent emissions reduction by 2030 means we need significant new measures.



Significant Challenges for Ireland

► Technical and Climate:

- Ireland's reliance on fossil fuels for energy production (e.g. coal and gas power-plants), manufacturing, road transport and heating "is the principal source of emissions in Ireland" at 60.5% of total emissions.
- Two conflicting scenarios for 2030:
 - 70% renewable electricity
 - 70% of peak energy demand will constitute data centres
- Increasing protests and judicial reviews against windfarm development.
- Lack of interaction between biodiversity and climate targets.



Intel will use four times as much power as Galway city in Leixlip

US giant is plotting four-fold increase in power usage as part of expansion at microchip plant in Leixlip



Expansion: It is not clear if Intel will pay the €50m cost of the project

Paul Melia



How can we connect climate, energy and social policy?

- ▶ **Energy Poverty:** The inability to heat, cool or power one's home.
- ▶ Lack of research and study but appears to be an intractable problem. Excess of 2,500 cold-related deaths per year. Significant impacts on vulnerable and marginalised groups such as Travellers, single parents and children. Rural communities also impacts by transport and potential turf phase-out.
- ▶ After a pause for the pandemic, energy companies increased prices by c.8% in April and c.9% in June 2021. Now paying €200 a year more for electricity and €150 for gas.
- ▶ Electricity prices in Ireland are 23% above the EU average and 4th most expensive in the EU. Gas prices are 7th most expensive.
- ▶ Also climate justice requirement of technology-transfer and expertise sharing with developing countries.



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Home > News & Media > Blog > How can a Just Transition work

How can a Just Transition work for people in energy poverty?

Posted by [Issy Petrie](#) on 04 February 2020 | [0 comments](#)

In 2019, it became clear to all of us that avoiding climate breakdown requires immediate action. At a European level, we are [already committed](#) to a target of net zero carbon emissions by 2050. Nationally, a [Climate Action \(Amendment\) Bill](#) was proposed to the Dáil last year, which would have given the Government's Climate [Action Plan](#) a legal basis.

At St Vincent de Paul, we are committed to tackling the structural causes of injustice and inequality in all its forms. The [UN Special Rapporteur on Poverty](#) has said that it will be the poorest who suffer most from climate breakdown, despite contributing the least to the situation we are now in. As well as the



ACCOMMODATING ETHNICITY

Addressing Energy Poverty Among Travellers
Living in Mobile Homes and Trailers:

An Exploratory Study



Priorities of the Energy System

- ▶ Oxfam Ireland: Richest 10 per cent of the country emits almost as much as the bottom 50 per cent. Emissions of the poor are ‘inelastic’.
- ▶ Oxfam Ireland’s Jim Clarken “Simply rebooting our outdated, unfair and polluting pre-Covid economies is no longer a viable option. Governments must seize this opportunity to reshape our economies and build a better tomorrow for us all.”
- ▶ Not climate-led
- ▶ Not public-value-led
- ▶ Not public-good focused
- ▶ Not ‘climate justice’ or global solidarity-led

1

Generation-Led

Put clean electricity generation close to where most power is used

2

Developer-Led

Let developers decide where to locate clean electricity generation

3

Technology-Led

Try new ways to move clean electricity across the country

4

Demand-Led

Put large electricity users close to sources of clean electricity generation

W.M Harland in the Financial Times (1929):

‘The free State came into being, and ardent untried administrators, remembering that they had always been accused of being dreamers, seized on this chance of showing what they can do....they had thrown on their shoulders the not easy task of breaking what is in reality an enormous inferiority complex and the Shannon Scheme is one - and probably the most vital - of their methods of doing it.’



Ireland's Ardnacrusha hydro-electric power station – a clean-tech exemplar?

by Carmel Doyle

14 AUG 2012



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Examples of Ardnacrusha and REF tend towards exemplifying technological solutions and community education.

BRAINSTORM ▶ About Brainstorm Contribute to Brainstorm

Lessons on climate action from the Rural Electrification scheme

Updated / Wednesday, 21 Aug 2019 12:22



"The Rural Electrification Scheme was an enormous logistical, capital, technological and cultural project that transformed the Irish countryside"



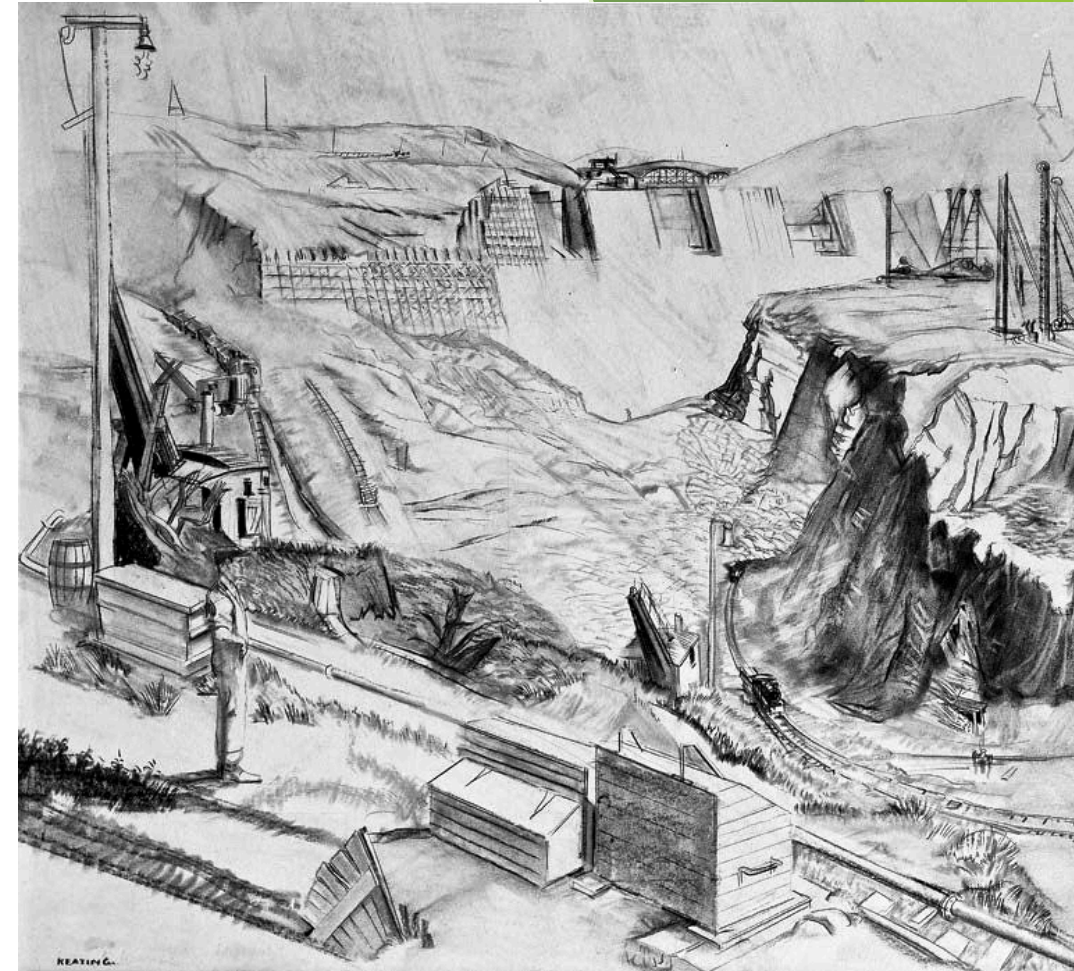
By **Fionn Rogan**
MaREI Centre

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Could Ireland have previously delivered a ‘just transition’?

- ▶ The Ireland of the 1920s presented unlikely circumstances for ambitious national projects of any kind: War of independence, Anglo-Irish Treaty, Civil War, extreme poverty.
- ▶ Cumann na nGaedheal party (1922-1932) inherited laissez-faire economic and commercial orthodoxies of the 1920s and British administration, and a reinstated civil service.
- ▶ Yet - the world's first state energy company, the ESB, and its primary power source, the Ardnacrusha Hydroelectric Power Station on the Shannon River. Began research into rural electrification.
- ▶ Attempts had been made to attract foreign investors but corporations “objected to government stipulation that unprofitable rural lines might have to be built without any guaranteed government subsidy” (Manning and McDowell, 7)
- ▶ Equivalent to 20% of GDP. Roughly the net cost of the banking sector bailout of 2008 (€40 billion)



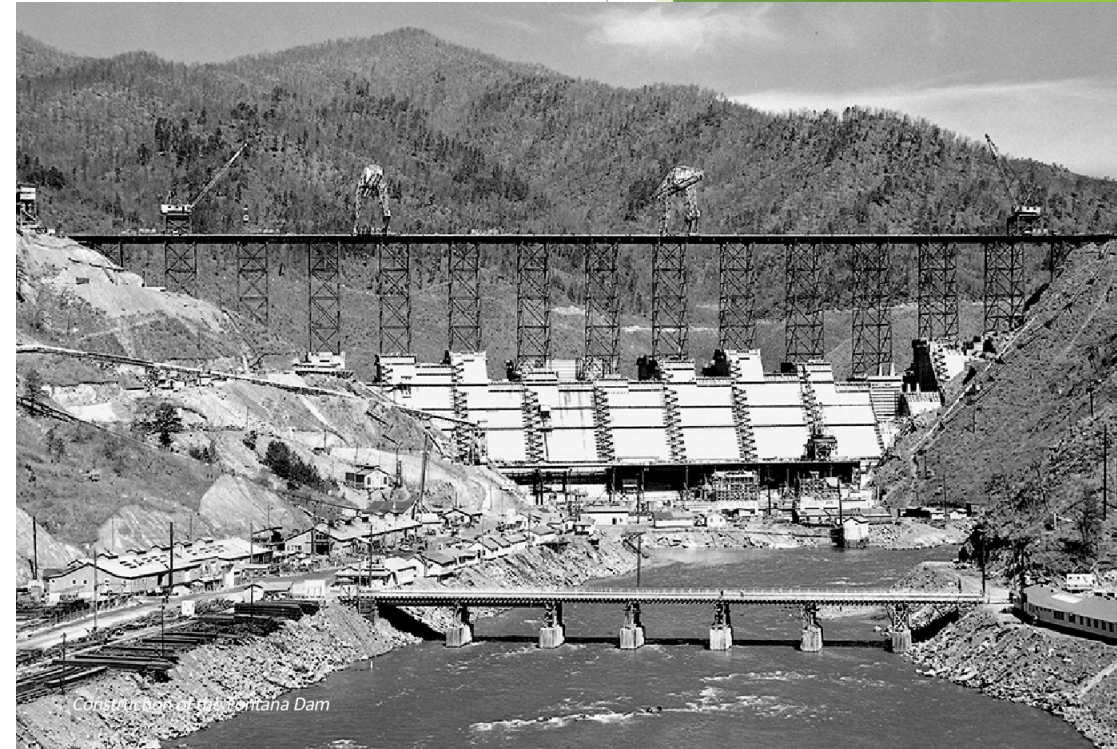
The Electricity Supply Board (Bord Soláthair an Leictreachais)

- ▶ To deliver Ardnacrusha's energy to the public, in 1927 the government established its first Irish state company, the ESB, through the Electricity (Supply) Act, 1927.
- ▶ 40 years of electricity by 1927, based around towns and private companies. Vast majority of the population left in darkness and drudgery.
- ▶ ESB given full responsibility for the generation, transmission, distribution, and marketing of electricity. Government nationalised 300 expensive and inefficient private and local authority undertakings.
- ▶ Aim was not-for-profit, universal, and affordable access to electricity; "strong on technical expertise, with set targets and with the muscle, dynamism and freedom to achieve these targets." (Manning and McDowell, 60)
- ▶ The critique and backlash was significant - called "the first fruits of Bolshevism in this country."



Ardnacrusha - “The Height of the Cross”

- ▶ Ardnacrusha opened in 1929, built with the assistance of the German engineers from Siemens-Schuckert
- ▶ Completed on time and within the contract price of IR£5million.
- ▶ Providing 100 percent of Ireland’s electricity needs in the 1930s at 1d (penny) per unit compared to 5d (pence) from previous suppliers.
- ▶ International, national, and local expertise created during the project poured into the ESB.
- ▶ C20th engineering milestone. Plans for Ardnacrusha still used internationally as a blueprint for hydroelectric plant development.
- ▶ Downsides: Major risk to endangered European eel has not been sufficiently addressed. Insufficient labour protections in beginning.



Rural Electrification Scheme

- ▶ Modelled on U.S. President Franklin D. Roosevelt's 1935 Rural Electrification Administration under the New Deal.
- ▶ Accompanied by a participative community approach to educate the public as to the benefits of electricity.
- ▶ Commenced in 1946 aiming to supply 69 percent of rural premises—achieved in 1961.
- ▶ By 1975, 99 percent of all homes in the country had an electricity supply.
- ▶ This process lasted thirty years, costing IR£140 million.
- ▶ It was funded in part by a direct state grant, but primarily through solidarity, with urban areas subsidizing access and affordability for uneconomic rural areas.



1990s: A 'New Dawn' for Ireland's Energy System

- ▶ In 1999 Minister for Public Enterprise Mary O'Rourke introduced the Electricity Regulation Bill 1998 - opened up 28 percent of the Irish electricity market to competition
- ▶ Minister O'Rourke: "It will herald a new dawn for Ireland as we face into the next century."
- ▶ Part of a wave of liberalisation and privatisation of energy systems from 1982 privatisation of Chile's energy system under the Pinochet dictatorship.
- ▶ European Commission began in 1996 with the First Electricity Directive: "unbundled" national electricity systems (including generation, transmission, distribution, and supply) to introduce competition to the profitable parts of generation and supply.
- ▶ The reforms were based on the belief that effective competition and a more integrated European energy market would naturally reduce energy costs, increase freedom of choice for consumers, and remove barriers to intra-Community trade
- ▶ Northern Ireland privatised. In the south of Ireland, transmission networks remained in public ownership, largely due to trade union opposition to privatisation, and EU concessions on account of small island population.



Shift in Energy System Priorities

- ▶ By the 1990s, the ESB was a world-class energy company, efficient at low cost due to seventy years of price controls
- ▶ In 2001, Irish government removed the not-for-profit mandate of the ESB and committed to the delivery of 13.2 percent of electricity from renewable energy sources by 2010.
- ▶ Did not follow example of Shannon and Rural Electrification Schemes to meet decarbonization goals.
- ▶ Instead began to incentivise private actors into the market using state subsidies and supports such as the Renewable Energy Feed-in Tariff (REFIT) which provided a guaranteed set fifteen-year minimum price per unit of electricity exported for the grid.
- ▶ Financed through a flat Public Service Obligation (PSO) levy charged to all households.
- ▶ Jump in disconnections, energy poverty, energy prices, employment and carbon impacts.

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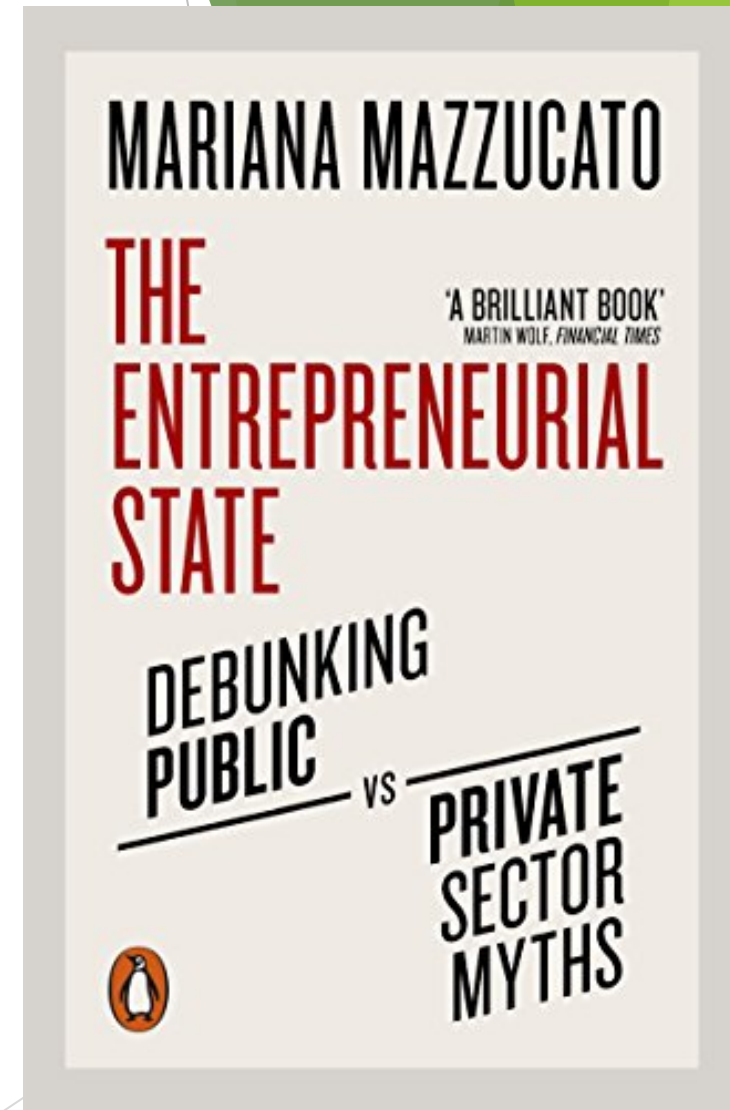
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Demand-Led

Put large electricity users close to sources of clean electricity generation

Legacy Today

- ▶ Inability to meet climate targets - ESB and Coillte leaders in reaching renewables
- ▶ EU Electricity Directives leave states unable to set price controls to ensure affordability.
- ▶ Energy efficiency targets are voluntary and undermined by systemic drive for profit before climate action or energy poverty alleviation though 11% of the EU population suffer from it.
- ▶ Solution such as 'smart metering' return state obligation of efficient energy system to individuals. Lack of 'privacy by design'.
- ▶ Just transition demands allow us to ask overarching question about revitalising the role of states and communities - time to move from the capital facilitative, to the entrepreneurial state.



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(1929):

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Looking to the Past: Ireland's Renewed Role in Climate Action

- ▶ We achieved Ardnacrusha and the ESB due to the Irish state's long-term economic planning, leadership, experimentation and enterprise. Most importantly, the steadfast underpinning of the energy system with a not-for-profit public value mandate.
- ▶ This enabled state ownership and long-term economic planning without harsh bureaucratic oversight.
- ▶ How can we do the same today?

