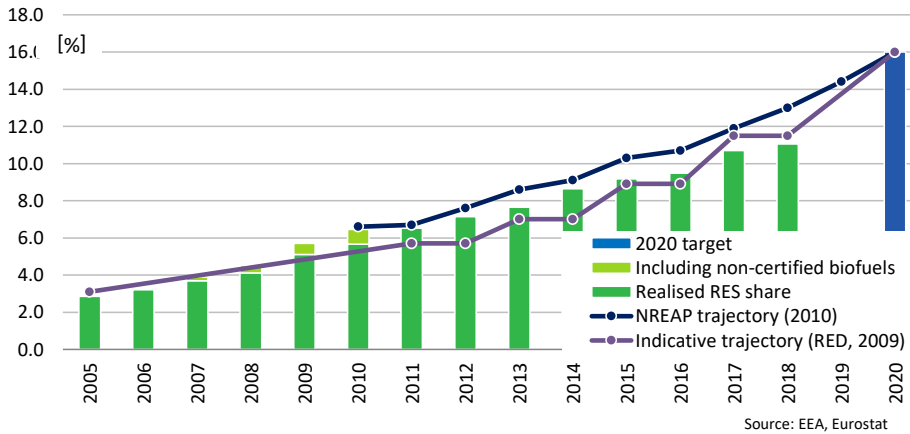


### Summary

In Ireland, a feed-in-tariff scheme (REFIT) to promote the generation of renewable electricity was closed for new applications by 31 December 2015. A new support scheme, RESS, was announced in July 2018 and the first RESS auction was implemented in July 2019. The only remaining renewable electricity support scheme, introduced in 2018, is a subsidy for the purchase and installation of PV and battery storage. Renewable energy sources for heating purposes are promoted through subsidies and an accelerated capital depreciation instrument. Renewable energy use in transport is supported by a biofuels quota system. Several benefits are available to promote the uptake of electric vehicles.

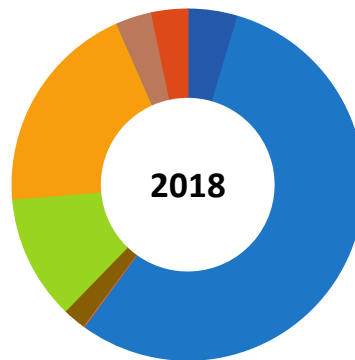
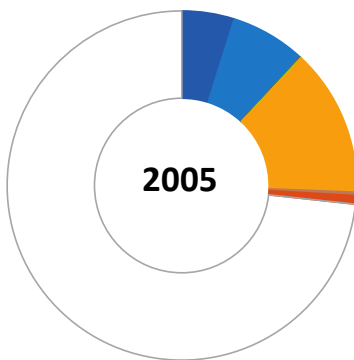


### Abbreviations used:

RES: renewable energy sources  
 RES-E: renewable electricity  
 RES-H/C: renewable heating/cooling  
 RES-T: renewable transport fuels

### Data for 2018

Overall RES share:	11.1%	Avoided fossil fuels:	2.3 [Mtoe]
Overall RES 2020 target:	16.0%	Avoided fuel expenses:	0.6 [billion euro]
Share RES-E in electricity:	33.2%	RES Turnover:	960 [MEUR]
Share RES-T in transport:	7.2%	RES Employment:	8700 [jobs]
Share RES-H/C in heating:	6.5%		



- Hydropower
- Wind power
- Solar PV, CSP and water heaters
- Solid biomass
- Biofuels in transport
- Renewable heat consumed
- Renewable heat derived
- Heat pumps
- All other renewables
- Gap towards 2018

Source: Eurostat, 2020.

	2005		2018		
	Energy		Energy	Employment	Turnover
Hydropower	65.4 ktoe		62.2 ktoe	300 Jobs	30 MEUR
Wind power	94.6 ktoe		746.1 ktoe	4500 Jobs	510 MEUR
Solar PV, CSP and water heaters	0.0 ktoe		1.4 ktoe	300 Jobs	30 MEUR
Solid biomass	0.7 ktoe		28.4 ktoe	1100 Jobs	140 MEUR
Biofuels in transport	1.1 ktoe		154.2 ktoe	200 Jobs	10 MEUR
Renewable heat consumed	183.0 ktoe		265.4 ktoe		
Renewable heat derived	0.0 ktoe		0.0 ktoe		
Heat pumps	4.2 ktoe		44.3 ktoe	400 Jobs	40 MEUR
All other renewables	10.5 ktoe		44.2 ktoe	1900 Jobs	200 MEUR
Gap towards 2018	986.7 ktoe				

Source: Eurostat, EurObserv'ER, 2020.

Hydropower jobs & turnover only covers 'small hydropower'. PV=Photovoltaics, CSP=Concentrated Solar Power. Biofuels in transport only covers compliant fuels (employment and turnover additionally cover the non-compliant biofuels). Derived heat includes heat produced in main activity producer plants and heat sold produced in autoproducer plants. Its counterpart is the final heat consumption in the final consumption sectors (such as households).



## ***CURRENT RENEWABLE ENERGY POLICY***

The Irish government published in May 2012 a Renewable Energy Strategy which reinforces the commitment to renewable energy in line with the 2009 Renewable Energy Directive, and which sets out concrete actions to develop renewable energy in the domestic market and for export. Additionally, the Offshore Renewable Energy Development Plan (OREDPA), adopted in 2014, identifies opportunities for the sustainable development of Ireland's abundant offshore renewable energy resources for increasing indigenous production of renewable electricity. The OREDPA sets out key principles, policy actions and enablers for delivery of Ireland's significant potential in this area. In this way, the OREDPA provides a framework for the sustainable development of Ireland's offshore renewable energy resources. Among others, the OREDPA sets to create capital grants for development and demonstration ocean projects, which are foreseen to be available until end of 2017.

Electricity from renewable sources was mainly promoted through a feed-in-tariff scheme until 31 December 2015. Currently there is no main support scheme available for developers of projects concerning production of electricity from renewable energy sources. A new support scheme, RESS, has been announced in March 2017. In July 2020 the first RESS round 1 auction was held.

The proposed new Renewable Electricity Support Scheme (Government of Ireland, 2018a and 2020) sets out to provide support to renewable electricity projects in Ireland. With a primary focus on competition and cost effectiveness, the RESS is to deliver a broader range of policy objectives, including:

- An Enabling Framework for Community Participation through the provision of pathways and supports for communities to participate in renewable energy projects
- Increasing Technology Diversity by broadening the renewable electricity technology mix (the diversity of technologies)
- Delivering an ambitious renewable electricity policy to 2030
- increasing energy security, energy sustainability and ensuring the cost effectiveness of energy policy

RESS auctions are announced to be held at frequent intervals throughout the lifetime of the scheme. This is to allow Ireland to take advantage of falling technology costs and by not auctioning all the required capacity at once, higher costs for consumers would not be 'locking in' for the entirety of the scheme.

The Scheme was initially set by the previous government to provide for a renewable electricity ambition of 55% by 2030. In the National Climate Plan 2019 and the final National Energy and Climate Plan (NECP) this RES-E ambition has been raised to 70% (Government of Ireland, 2019a, 2019b and 2020).

*Electricity from renewable sources* is currently being promoted by the following instruments:

- A feed-in tariff scheme, REFIT, launched three successive calls for proposals within the period 2006-2015 and was closed for new applicants as per ultimo 2015. Supported technologies encompass onshore wind power, biogas (landfill gas, anaerobic digestion), biomass, and hydropower ( $\leq 5$  MW). Offered guaranteed rates are technology-specific with sub-categories for distinct capacity ranges. The support contract period was determined on an individual PPA basis up to a maximum of 15 years.

- The Renewable Electricity Support Scheme round 1, RESS1, is a multi-technology, renewable electricity auctions scheme with a guaranteed supply price for participants successfully submitting an offer price (€/MWh) and an offer quantity (MW capacity) in their auction bid (Government of Ireland, 2020). The Scheme was proposed in 2017 and launched *de facto* in 2020. The first auction was held in July 2020. Provisional results published in August 2020 indicate approval of bids for power supply contracts for up to 16.5 years benefitting 19 wind farm projects and 63 PV projects at an average bid price of €74.08 / MWh, well below the average indexed contract prices of the last projects approved under the REFIT scheme (The Irish Time, 5 August 2020). The combined capacity of these projects with provisionally accepted bids totals 1275.5 MW (Renewables Now, 5 August 2020). RESS1 carves out a community benefit fund delivering €4.5million a year to sustainable community initiatives targeted at those communities living in close proximity to the RESS-1 projects.
- The “Solar PV Pilot Scheme” was launched in July 2018. The investment subsidy scheme targeting homeowners of houses built and occupied before 2011 is expected to be open to applications for a 2-year period with reviews every half year. It envisages to provide subsidies of €700/kW<sub>p</sub> for PV systems up to 2 kW<sub>p</sub> and €1000 battery storage subsidy for up to 4 kW<sub>p</sub> systems.

*Heating from renewable sources* is promoted by the following instruments:

- Through the Better Energy Homes Scheme-Solar Water Heating Grant, homeowners of dwellings built before 2011 can apply for a € 1,200 grant aid for the installation of a solar thermal installation. Eligible technology: solar thermal.
- The “Support Scheme Renewable Heat” (SSRH) foresees a subsidy for RES H&C plants or an on-going operational support. Currently, only the subsidy scheme is open for applications. The subsidy amounts to up to 30% of the eligible investment costs. The scheme targets non-household heat users that are not participating in the EU ETS. Eligible technologies: heat pumps with a seasonal coefficient of performance of at least 2.5.
- The “Accelerated Capital Allowance scheme” targetting companies paying corporation tax in Ireland is applicable among others to heat pumps, solar thermal collectors and company electric vehicles.

*Transport fuels from renewable sources* is promoted by a biofuels quota scheme. This scheme obliges suppliers of fuels to ensure that biofuels make up to a defined percentage of the company’s total annual sale of fuel. Furthermore, buyers of battery electric vehicles can get a purchase subsidy of € 5,000 and a purchase tax relief of up to € 5,000, a reduction of the CO<sub>2</sub>-based annual ownership tax, accelerated capital depreciation for company electric vehicles, free parking in certain municipalities and free charging at normal and high power public recharging points. Furthermore there is free installation of domestic chargers for up to charging points.

So far, the assessment by the European Commission of *draft National Energy and Climate Plans* of the Member States is available. The Commission’s assessment of the draft integrated National Energy and Climate Plan of Ireland – regarding the targets for year 2030 for the share of renewable energy and gross final energy consumption only – is shown below.<sup>1</sup>

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<sup>1</sup> The core renewables policy performance metric in the EU is the ratio of annual *gross final renewable energy consumption* and annual *gross final energy consumption*. Other factors remaining the same, gross final energy consumption reduction boosts the share of renewables as defined by the aforementioned metric.

**Table 1: Overview of Ireland’s actual performance (2018), targets (2020), proposed contributions (2030) under the Governance Regulation, Regulation (EU) 2018/1999 and contribution ambition assessment by the European Commission, regarding the share of renewables and the level of gross final energy consumption**

National targets and contributions	2018	2020	2030	Assessment of 2030 ambition level
Share of energy from renewable sources in gross final consumption of energy (%)	11.1	16.0	15.8 to 27.7	Below 31% (result of RES formula)
Final energy consumption (Mtoe)	12.3	11.7	13.0	Very low

Source: European Commission, (2019); eurostat (2020a, 2020b)

Based on the formula contained in Annex II of the Governance Regulation, Croatia’s renewables share would have to reach the level of **31%** in 2030 (European Commission, 2019) against the historical rate of 11.1% in 2018 (eurostat, 2020a). The European Commission (2019) finds that the lack of a clearly identified contribution to the 2030 renewable energy target among the four scenarios presented makes it difficult to assess the level of Ireland’s ambition. The ambition levels range from 15.8 % to 27.7 %, and are below the share of 31 % in 2030 that results from the formula contained in Annex II of the Governance Regulation (European Union, 2018). Furthermore, the Commission deems that Ireland has set a very low contribution for energy efficiency in 2030 for final energy consumption: “Energy consumption is expected to grow (towards year 2030) compared to the 2020 energy efficiency target and the energy consumption level in 2017 (and 2018), which goes in the opposite direction of what is needed collectively by the EU”.

*Ireland’s final Energy and Climate Plan* adopts a **34%** target for the renewables share by year 2030 (Government of Ireland, 2019b). This boils down to a substantial rise in ambition level compared to what is outlined in its draft NECP; it even exceeds significantly the 31% benchmark resulting from the formula in Annex II of the Governance Regulation. It builds upon the Climate Action Plan 2019 published early August 2019 (Government of Ireland, 2019a) by the new government that assumed office with effect of February 2019. Existing and additional measures to achieve the 34% target include:

- Increase electricity generated from renewable sources to 70%, underpinned by the Renewable Electricity Support Scheme (RESS)
- At least 3.5 GW of offshore renewable energy of mainly offshore wind, the development of up to 1.5 GW of grid scale solar energy, an increase in onshore wind capacity of up to 8.2 GW
- Streamline consenting and connection arrangements
- Phase-out of coal and peat-fired electricity generation
- Introduce a support scheme for micro-generation
- Facilitate community participation in renewable generation under the Renewable Electricity Support Scheme
- Provide funding supports for new technologies onshore and offshore
- Ensure that 15% of electricity demand is met by renewable sources contracted under Corporate Purchase Power Agreements (PPAs)
- electricity meters will be replaced in every house by 2024 under the Smart Metering Programme.
- Support the ocean energy research, development and demonstration pathway for emerging marine technologies and associated test infrastructure

- Accelerate the penetration of electric vehicles (EVs) so that 936,000 will be on the road by 2030, underpinned by policy tools such as vehicle and fuel taxation measures, and a strong carbon tax trajectory
- Increase the renewable biofuel content of motor fuels underpinned by the biofuels obligation scheme.

The 2030 energy efficiency target in final energy consumption in Ireland's final NECP with additional measures is 130.493 TWh (Government of Ireland, 2019b: 46), corresponding to **11.2 Mtoe**. This is a more ambitious energy efficiency level than the final energy consumption level of 13.0 Mtoe proposed in Ireland's draft NECP.

## OVERVIEW OF MAIN SUPPORTING POLICIES

Tables 2 and 3 provide an overview of support instruments used to promote the deployment of renewable energy in Ireland.

**Table 2: Overview of support schemes to promote renewable energy in Ireland**

	NON-FISCAL SUPPORT SCHEMES					FISCAL AND OTHER STATE FUNDED INCENTIVES			
	Feed-in premium <sup>2</sup>	tendering	Quota obligation without certificates system	Tendering	Net-metering/ net-billing	Investment subsidy	Accelerated capital depreciation (corporation tax)	Other	Loans
<b>RES-E</b>									
- Offshore wind									
- Onshore wind	x								
- Solar						x			
- Hydro	x								
- Geothermal									
- Solid biomass	x								
- Biogas	x								
<b>RES-H/C</b>									
- Solar thermal						x	x		
- Geothermal						x	x		
- Biomass									
- Biogas									
- Large ambient heat application						x	x		
- Small scale installations, e.g. solar thermal collects, heat pumps, biomass boilers and pellet stoves						x	x		
- Others, i.e. aerothermal, hydrothermal						x	x		
<b>RES-T</b>									
- Biofuels			x						

1) Closed for new applicants as per 1 January 2016.

Sources: RES Legal, EurObserv'ER

<sup>2</sup> The Renewable Energy Feed-in Tariff (REFIT) schemes supported various renewable electricity generation technologies until 31 December 2015, and is currently not open for new projects.

Table 3: Brief description of key policy instruments aimed at promoting renewables in Ireland

<i>Instrument</i>	<i>Description</i>
Renewable Energy Feed-in Tariff (REFIT) for implemented project that were approved until 2015	The REFIT scheme in Ireland is split into three programmes: REFIT 1, REFIT 2 and REFIT 3. The REFIT 2 programme was opened in March 2012 and covers small and large scale onshore wind, biomass landfill gas and small hydropower ( $\leq 5\text{MW}$ ). REFIT 3 programme opened in February 2012 and supports anaerobic digestion, biomass with CHP and biomass combustion and co-firing. The REFIT 2 and REFIT 3 competitions are separate schemes with separate terms and conditions in respect to each scheme. Both schemes were closed to <u>new</u> applications on 31st December 2015. REFIT capacity cap is 4,000MW and REFIT 3 has an overall limit of 310 MW, differentiated by technology (anaerobic digestion, biomass CHP and biomass CHP and biomass combustion (including co-firing with peat)). Projects benefiting from REFIT programmes must be operational by 2017.
Better Energy Homes Scheme	Homeowners of dwellings built before 2006 can apply for a € 1,200 grant aid for the installation of a solar thermal installation
Biofuels quota scheme	<p>This scheme obliges suppliers of fuels to ensure that biofuels make up to a defined percentage of the company's total annual sale of fuel. Fuel suppliers receive one certificate for each litre of biofuel placed on the market. Two certificates are issued if the biofuel is produced from materials such as biodegradable waste, residue, non-food cellulosic material, ligno-cellulosic material or algae.</p> <p>Certificates are issued for biofuels that have been demonstrated to have complied with the sustainability criteria of the Directive. Biofuels must not be made from feedstocks sourced from certain categories of land, and must achieve certain greenhouse gas emissions reductions.</p>
Benefits for electrical vehicles	SEAI offers grants up to €5,000 (€3,800 for commercial purpose) for the purchase of a Battery Electric Vehicle (BEV) or a Plug-in Hybrid Electric Vehicle (PHEV) purchased and registered in Ireland. The grants are accessed directly by the car dealer. Additionally, both types of cars are eligible for Vehicle Registration Tax relief. Company electric vehicles are eligible for accelerated capital depreciation.

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## What is meant by ...?

Auctions for granting renewable energy support	An auction is a process of granting production or investment support to renewable energy projects based on the lowest bids by eligible project developers.
Feed-in tariff (FiT)	A support scheme which provides for a technology-specific remuneration per unit of renewable energy payable to eligible renewable energy producers. A proper, periodic review of FiT rates is often undertaken with the aim to prevent both too high FiTs so as to minimise regulatory rents, i.e. supra-normal returns and too low FiTs to preclude below-target market uptake because of FiT levels that are perceived by market participants to be less attractive. In addition, feed-in tariffs often include "tariff depression", a mechanism according to which the price (or tariff) ratchets down over time.
Feed-in premium (FiP)	A scheme which provides for a support level per unit of renewable energy to eligible renewable energy producers, typically for a period of 10-20 years, at a pre-set fixed or floating rate. The premium is typically adjusted periodically to exactly offset change in the average energy wholesale market price, based on a pre-specified benchmark market price. A floating FiP may move freely or may only be allowed to move within a pre-set interval.
Grants	Grants are non-repayable funds disbursed by one party (grant makers), often a government department, corporation, foundation or trust, to a recipient, often (but not always) a non-profit entity, educational institution, business or an individual. (Source: Wikipedia.org)
Green public procurement	In Green public procurement contracting authorities take environmental issues into account when tendering for goods or services. The goal is to reduce the impact of the procurement on human health and the environment. (Source: Wikipedia.org)
Renewable quota scheme (RQS)	A RQS mandates certain market actors (typically retail suppliers or large energy end-users) to respect a pre-set minimum share or amount of their total energy procurements from renewable sources of energy. Typically a tradable green certificate (TGC) scheme is operated to enable the obligated parties to prove their compliance with the prevailing renewable quota target by means of TGCs.
Sliding feed-in-tariff	A FiT scheme which pre-sets technology-specific declining feed-in tariffs for certain prospective vintages in line with the technology-specific learning curve, as projected by the National Regulatory Agency (NRA). Often a depression rate is used indicating the %/annum decrease in the rate level.
Soft loans	Loans at concessional (below market-based) terms, for example at sub-market-conform interest rates, made available in several Member States to stimulate certain renewable energy technologies.
Tax credits	These are amounts a tax paying entity is allowed to deduct when declaring payable taxes, for example company tax or income tax, to the tax authorities, for example the producer tax credits (PTCs) used in the United States to stimulate among others wind energy deployment.



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