Annex Ireland - Climate Targets

Claus Ole Munthe Øren

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The Irish NECP is a good source with ample amounts of data on all the variables of interest. It contains WEM and WAM estimates for every category of supply and demand. All the estimates also contains the development to 2050 which makes it easy to use to analyses the different scenarios. The annexes are also a good source to find a detailed breakdown of the information - compared to other countries the annex is filled with information. A decent amount of the targets are add into this document for ease of reading, but for brevity's sake it is kept to minimum.

Ireland has made targets to be a net-zero emissions country by 2050 and to reduce their greenhouse emissions by 51% by 2030 [2, 50]. Another document that I have used is the climate action plan, but this has mostly been a supplement to the NECP - trying to fill in extra information, especially on the demand side [1].

1 Supply

As with other countries, the problem of WEM, WAM, and targets exists also in the Irish NECP, with them writing estimates and trajectories between each other. Therefore, the WAM scenario is picked as the target.

Given that detail, the amount of information given in the NECP is sizable - it contains information and breakdowns on the different production, electricity, and other outputs. Therefore, if it is necessary for another project one could find information biothermal and other production methods.

1.0.1 Percent targets

As the other countries Ireland has their own percentage targets which they will have to full fill which informs their strategy for the devolvement of the different sectors. These targets are found in table 8 and 9 in the NECP [2, 67].

1.0.2 Capacity targets

This is the trajectory made by Ireland in the WEM and WAM scenarios [2, 72].

In MW	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2040	2050
Wind on shore	4333	5007	5193	5318	5568	5818	6068	6318	6568	6818	7968	8968
Wind off shore	25	25	25	25	25	25	25	850	2650	6650	10150	10150
Solar PV	75	371	534	1140	2151	2524	3544	4079	4864	5700	7784	9784

Table 1: Renewable Electricity Installed Capacities (WEM)

In MW	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2040	2050
Wind on shore	4333	5007	5193	5318	5824	6065	6565	6805	7105	7155	9155	10000
Wind off shore	25	25	25	25	25	25	25	850	2650	4000	11300	18300
Solar PV	75	371	560	1194	2249	2687	3575	4192	5324	6500	9450	12000

Table 2: Renewable Electricity Installed Capacities (WAM)

2 Demand

Under demand we find still a lot of data, but with regards to electricity demand it seems to be a little lacking. However, as in the supply side, they provide detailed estimates of the energy demand of the different sectors. Most of the data is found in the annex of the NECP [2, annex.3].

2.0.1 Electricity demand projections

There was a little on the Electricity demand but it was fundamentally lacking in the sense that its subdivisions made it difficult to implement in the data set. However, they are found at around page 72 [2].

2.0.2 Energy consumption

The hydrogen numbers are stated as "a commitment by the government" which I have interpreted as a goal of the government and within the WEM category [2, 354].

2.0.3 Electrification of industry

I could not find any concrete plans on electrification of industries except for that they are going to be a net-zero contributor to greenhouse emissions which implies that they will electrify huge parts of their industry. [**?**]

2.0.4 EV targets

Ireland has the target of reaching 845 000 private electric cars and 95 000 commercial by 2030 [1, 39]

2.0.5 Heat pump targets

The installing of heat pumps has a target of target is 680 000 in 2030 [1, 39].

References

[1] Energy and the Enviorment Department of Climate. Climate Action Plan 2024, December 2024.

[2] NECP. Ireland - Final updated NECP 2021-2030 (submitted in 2024) - European Commission.