

Carbon Neutral Finland 2035

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VTT, Espoo , 27 November 2019



Ministry of Economic Affairs
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Programme of Prime Minister Antti Rinne's Government: Carbon neutrality by 2035



The Government will work to ensure that **Finland** is carbon neutral by 2035 and carbon negative soon after that. We will do this by accelerating emissions reduction measures and strengthening carbon sinks.

The Government is committed to reforming the climate policies of the **European Union** and Finland so that we can do our part to limit the global mean temperature increase to 1.5 degrees Celsius. Finland aims to develop the EU's long-term climate measures so that the EU can achieve carbon neutrality before 2050. This means tightening the emissions reduction obligation for 2030 to at least 55 per cent below the 1990 emissions level.

We will continue our **Nordic** climate and energy cooperation in order to achieve carbon neutrality and will work to strengthen the position of the Nordic countries as leaders in international climate policy.

Programme of Prime Minister Antti Rinne's Government: decarbonising energy sector



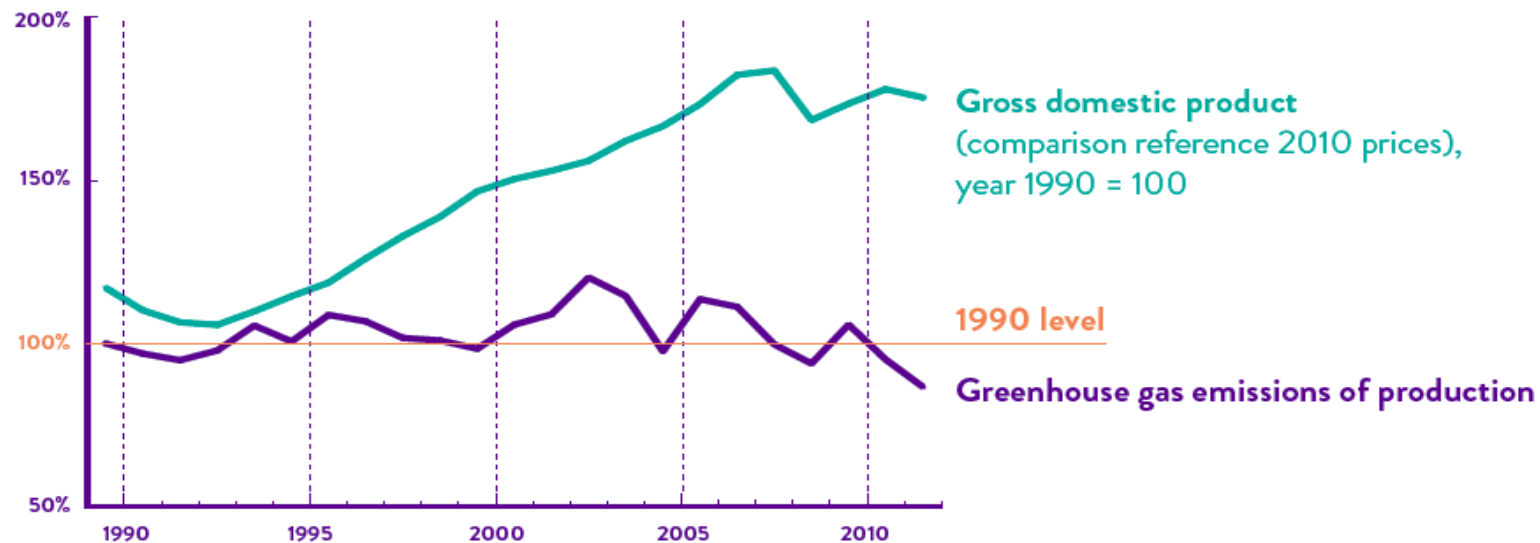
Finland aims to be the world's first fossil-free welfare society.

Electricity and heat production in Finland must be made nearly emissions-free by the end of the 2030s while also taking into account the perspectives of security of supply and servicing.

Finland has decoupled greenhouse gas emissions from economic growth



Greenhouse gas emissions have decreased in Finland while the gross national product has increased. Some of the production causing greenhouse gas emissions now takes place abroad, however, and imports have grown. On the other hand, some of Finland's emissions are generated in the manufacturing of products for export abroad. For example, our paper industry produces paper for 100 million people.



How to achieve carbon neutrality by 2035?



Strategic level:

- In the long term, the essential task is to minimise the use of fossil fuels and to develop carbon sinks.
- To start with, we need better understanding on cost-effective roads towards 2035. PITKO study will be updated during autumn. The most relevant issue is how to accelerate decarbonisation even further cost-effectively and taking into consideration the potential speed of technological development.
- Energy-intensive sectors like steel, forest and chemical industry are in focal role, especially regarding the costs and economic effects of low-carbon transition. Agriculture and transport are equally important.
- Updates are needed for final NECP and LTS which will be provided to the European Commission by the end of 2019.
- Accordingly, national strategies will be updated in 2020/2021.

How to achieve carbon neutrality by 2035?



Tools:

- In general, regulation, subsidies and taxation should promote transition to low-carbon economy. Due to EU obligations, there is a need to focus now on Effort Sharing Sector, especially transport.
- According to the Government Programme, there will be a specific focus on energy taxation, sectoral low-carbon roadmaps, biogas programme etc.
- Operating aid is decreased, and stronger focus will be on innovation financing.
- EU instruments, especially Emissions Trading System, are essential instruments in transition.
- Low-carbon energy technologies need to be developed (R&D&I, deployment) in all fronts. Smart as well as resource-efficient solutions are important. Sector coupling is necessary for flexibility.
- Well-functioning energy markets and operating environment in general play a big role.

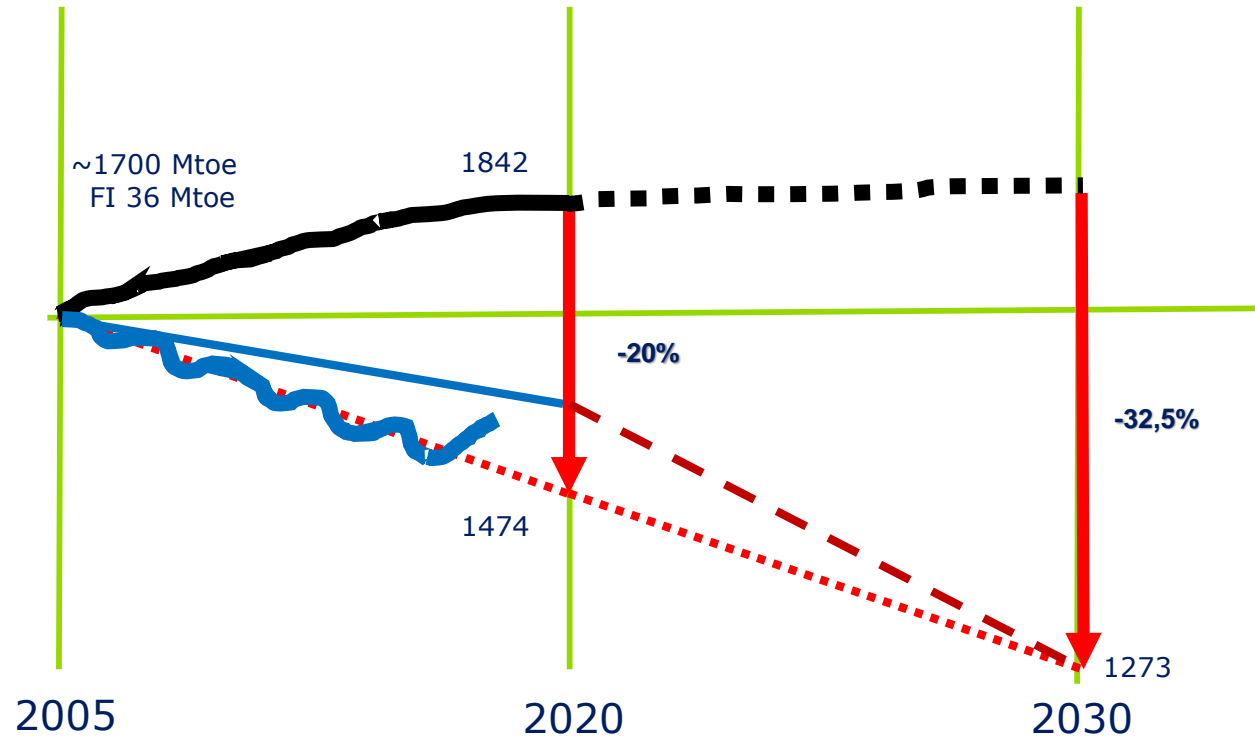
Assessment of national contributions (1)



- EU average used as a benchmark:
- The 2017 statistical data -EU as a whole should reduce its PEC and FEC by 18.4% and 14.8% respectively compared to 2017 data;
- The 2020 national targets for energy efficiency -EU 2030 target requires additional efforts of more than 11% in comparison to the 2020 target

- The level of ambition was assessed as:
- **sufficient** if a national 2030 contribution represented a higher reduction in energy consumption than at the EU level for the two criteria,
- **modest** if a reduction was lower than at the EU level but higher than 5 %,
- **low** if a reduction was in the range 0-5% or there was a small increase for one criterion,
- **very low** if values for both criteria increased.

EU 2020 and 2030 Energy Efficiency Targets



Energy Efficiency Agreements 2017-2025



INDUSTRIES | MUNICIPAL SECTOR | PROPERTY SECTOR | OIL-HEATED REAL ESTATES

ENERGY
CONSERVATION
AGREEMENTS

1997–2007

ENERGY
EFFICIENCY
AGREEMENTS

2008–2016

ENERGY
EFFICIENCY
AGREEMENTS

2017–2025

- **Comprehensive voluntary energy efficiency agreement scheme was initiated in Finland as early as in 1997**
- **The agreement scheme has produced desired results**
 - Heating energy and fuels & Electricity 15.9 TWh (electricity ~1/3)
 - Saved energy cost 540 M€, CO2 reduction 4.8 Mt
 - Total investments (2008-2016) 1300 million €, total 21 000 reported actions
- **The new agreement period 2017–2025 under implementation**
 - For EED article 7, in Finland EE Agreements are center part or Alternative Methods

Energy Efficiency Measures – EE WG report OCT 2019 – Main Measures towards National Energy Efficiency targets 2030	Savings 2030GWh/y
Energy Efficiency Agreements	25 770
Energy Efficiency Agreements / Customer Advice Services	83
Energy Efficiency Agreements Increasing the coverage	1 095
Energy Efficiency Agreements: Improved reporting	1 078
Energy Audit Programme	1 420
Energy Audit Programme: Increasing volumes	1 817
Waste heat project	1 600
Energy Efficiency Measures in Agriculture Sector	3 889
Energy Efficiency Measures in Agriculture Sector: Farming land arrangement	278
Energy efficiency investments of farms	99
EU binding CO2 thresholds: Cars	8 671
EU binding CO2 thresholds: Light-duty vehicles	285
EU binding CO2 thresholds: Heavy-duty vehicles	604
Campaign of wrecking old cars (2015 and 2018)	35
State aid for full electrical vehicles (until 2021)	0.1
Fuel tax for cars	1 236
Mass and measure modifications in truck transport	20
Implementation of ecodesign directive	7 075
Heat Pumps for Detached and Terraced Houses	11 956
Building Code, energy efficiency in new buildings	9 337
Building Code, energy efficiency in renovation	3 810
Total	80 159





Thank you!

Tack!

Kiitos!