## **TYNDP 2020**

## SCENARIO BUILDING GUIDELINES ANNEX 1: FURTHER ASSUMPTIONS ON THE AMBITION TOOL

Solar

Europe

Decarbonised economy

## GHG National Trends

Energy

Paris

Electricity

Net-zero

Power-to-gas

Hybrid System

Scenarios Global Ambition

Beyond

Distributed Energy

Wind Biomethane

Hydrogen

COP21

Climate Targets

Gas

Renewable energy

Hydro

NECP. 2050 Garbon Capture

Sector coupling

Methane Carbon budget Bio-energy

Final Report, June 2020





## Annex 1: Further assumptions on the Ambition Tool

The purpose of this annex is to shed light into further assumptions of the Ambition Tool. As already stated in Chapter [Ambition Tool], the purpose of taking the baseline data on Eurostat Data from 2015 is to have a starting point in terms of primary and final use energy use for the forecast years.

Following exemplary key drivers were identified in the quantification of the residential, tertiary, industrial and tertiary sector.

Key driver on	Parameter of influence		
Gas & Electricity	Population		
	Fuel switching		
	Transport sector: gasification of heavy transport sector,		
	hydrogen switch		
	GDP		
	<ul> <li>Tertiary sector: more economic activity more offices, retail outlets etc</li> </ul>		
	➔ Industrial sector: more economic activity more change in industrial output etc		
	Demand reduction:		
	Residential and tertiary sector: warmer homes by insulation		
	Transport sector: Switching from Internal Combustion Engines		
	(ICE) to electricity		
	➔ Industrial sector: process efficiency		
Electricity	End user devices: washing machines, freezers, TVs, computers, lightning, process efficiencies.		

These key drivers have an impact on the following assumptions.

Assumption	Input Parameter	Effect	Impact
End user appliance energy efficiency	Appliance Energy Efficiency (CAGR) and GDP	Efficiency gain	Delta of final use demand
Residential & Tertiary space heating requirements	Thermal Energy Efficiency (CAGR)	Building energy rating for thermal efficiency	Delta energy demand for carrier property
Residential space heating requirements	Input property technology split	Storyline based options: Heat Pump option, Gas vs Electricity	Final use energy demand for sector purpose