France

Submitted on 12 May 2020

Summary of main findings

Overall goal of the LTS Carbon neutrality by 2050¹ Carbon neutrality by 2050¹ • The goal covers international man enternational man enternational man enternational man enternational man enternational carbacter taken into account taken into account taken into account enternational measures (WAM) for reducing gree with the objective of achieving a carbon neutrality by (CCU/CCS). • International man enternational man enternation enternational man enternational man enternational man enternational man enternation enternational man enternational man enternational man enternational man enternation enternational enternation enternation enternational enternation enternation enternation entern	all sectors, witime and aviations in 2050 natural and to con offsetting at. to 2050, whice to 2050, whice ality by 2050 ess. ons by sector 2030 31	can be echnical sinks credits are not ch is a scenario with emissions in line . The scenario is		
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Scenarios presented in the LTS • The LTS presents one reference scenario up additional measures (WAM) for reducing gree with the objective of achieving a carbon neutr the result of a stakeholder engagement process by 2050 compared to 2015 (excluding removals): -83% (i.e. under the WAM scenario) Targets: Indicative milestones for 2040 and 2050 as for	to 2050, whice to 2050, whice thouse gas cality by 2050 ess. ons by sector 2030	ch is a scenario with emissions in line . The scenario is		
additional measures (WAM) for reducing gree with the objective of achieving a carbon neutr the result of a stakeholder engagement process by 2050 compared to 2015 (excluding removals): -83% (i.e. under the WAM scenario) Targets: Indicative milestones for 2040 and 2050 as for additional measures (WAM) for reducing gree with with the objective of achieving a carbon neutr the wam in the with the objective of achieving a carbon neutron measures (WAM) for reducing gree with the vision section in the with the objective of achieving a carbon neutron measures (WAM) for reducing gree with the objective of achieving a carbon neutron measures (WAM) for reducing gree with the vision section in the with the objective of achieving a carbon neutron measures (WAM) for reducing gree with the vision section neutron measures (WAM) for reducing gree with the vision section neutron measures (WAM) for reducing gree with the vision section neutron measures (WAM) for reducing gree with the vision section neutron measures (WAM) for reducing gree with the vision neutron neutron measures (WAM) for reducing gree with the vision neutron neutron measures (WAM) for reducing gree with the vision neutron neutron measures (WAM) for reducing gree with the vision neutron neu	enhouse gas eality by 2050 ess. ons by sector 2030 31	emissions in line . The scenario is		
GHG emission reductions by 2050 compared to 2015 (excluding removals): -83% (i.e. under the WAM scenario) Targets: Indicative milestones for 2040 and 2050 as for Mio.tCO2 eq Power Industry Transport Buildings Agriculture Waste LULUCF Notes: (1) Under the WAM emissions include internation	2030 31	ors:		
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(excluding removals): -83% (i.e. under the WAM scenario) Targets: Indicative milestones for 2040 and 2050 as for Industry Transport Buildings Agriculture Waste LULUCF Notes: (1) Under the WAM emissions include internation	~ .	2050		
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GHG reductions (i.e. under the WAM scenario) Targets: Indicative milestones for 2040 and 2050 as for Buildings Agriculture Waste LULUCF Notes: (1) Under the WAM emissions include internation	53 99	16 4		
(i.e. under the WAM scenario) Targets: Indicative milestones for 2040 and 2050 as for Waste LULUCF Notes: (1) Under the WAM emissions include internation	45	5		
Targets: Indicative milestones for 2040 and 2050 as for Waste LULUCF Notes: (1) Under the WAM emissions include internation	73	48		
2040 and 2050 as for Notes: (1) Under the WAM emissions include internation	11	6		
2040 and 2050 as for Notes: (1) Under the WAM emissions include internation	-40	-67		
	Notes: (1) Under the WAM scenario. (2) It is not clearly specified if GHG emissions include international maritime and aviation transport. (3) LULUCF based on reported values.			
Main drivers and	features:			
	By 2030, at least 33% renewable energy in gross final energy consumption.			
By 2030, multiply renewable source	By 2030, multiply by 5 the heat and cooling from renewable sources in district heating as of 2012. New York to be beginning to the least of 2022.			
	No estimated share of renewable beyond 2030.			
Main drivers and	Main drivers and features:			
Energy Efficiency n.a. sector (i.e. trai agriculture) to be today's levels. Significant increexpected in cars Acceleration of total and tertiary sector 100% low-energy Promote a shift	 Significant increases in energy efficiency are expected in cars, light and heavy-duty vehicles. Acceleration of the renovation pace in residential and tertiary sectors. The objective is to achieve 100% low-energy energy buildings by 2050. Promote a shift in lifestyles and consumption 			

¹ According to the <u>communication materials</u> accompanying the French national strategy on reducing GHG emissions, *carbon neutrality* should be interpreted as *climate neutrality*.

Metric	Value		Further information	
Estimated investment needs	Total investment needs will exceed € 3 trillion over the period 2019-2050 (i.e. include only building, transport and energy sectors)		 Annual investment need will increase from an average of € 65 billion in 2019-2033 to € 126 billion in 2034-2050. Additional investment needs to a baseline scenario are not specified. 	
Socio-economic impacts of transition	n.a.		 The LTS states that the ecological transition is an opportunity for the economy and for employment. The LTS refers to a socio-economic assessment available from an external link². It is estimated that the WAM scenario has a positive impact on GDP of 1-2% in 2030 and 3-4% in 2050. 	
Adaptation Policies and Measures	Limited	No section of the LTS covers adaptation in the 2050 context. The LTS refers to adaptation's strategies through the different sections. The LTS mentions the 'Plan national d'adaptation au changement climatique 2018-2022' (PNACC-2)³.		
Public consultation	Limited	An early public online consultation took place in 2017, and another online consultation on the draft LTS took place in early 2020. The LTS refers to a website with relevant information.		
Legal status of the LTS and targets	Yes	The 2030 and 2050 target are both enshrined in national law.		

Overall completeness of the LTS

- The LTS defines a clear goal for France, aiming to be carbon neutral by 2050.
- In general, the strategy is developed in detail and projections have been completed up to 2050.
- The LTS includes most of the mandatory contents. Gaps in mandatory elements are:
 - a) CO2 intensity of GDP:
 - b) Emission reductions and removals in the LULUCF sector⁴;
- The LTS includes some of the non-mandatory contents (e.g. energy emissions trajectory, expected emission reductions by transport type and transport decarbonisation options). However, there is no information on the estimated likely share of renewable energy in 2050 and little quantitative information on energy consumption⁵.

³ https://www.ecologie.gouv.fr/sites/default/files/2018.12.20 PNACC2.pdf

 $^{^2\,\}underline{\text{https://www.ecologie.gouv.fr/sites/default/files/20200318\%20Rapport\%20d\%27accompagnement\%20SNBC2.pdf}$

⁴ Projections for the LULUCF sector are provided in the document 'Synthesis of the reference scenario to the French strategy for energy and climate'. The document is available on the website of the Ministry of Ecological Transition:

https://www.ecologie.gouv.fr/sites/default/files/Synth%C3%A8se%20sc%C3%A9nario%20de%20r%C3%A9f%C3%A9rence%20SNBC-PPE.pdf⁵ More information are provided for 2030 and 2050 in the document 'Synthesis of the reference scenario to the French strategy for energy and climate'. The document is available on the website of the Ministry of Ecological Transition:

https://www.ecologie.gouv.fr/sites/default/files/Synth%C3%A8se%20sc%C3%A9nario%20de%20r%C3%A9fence%20SNBC-PPE.pdf