

Italy

Submitted on 11 February 2021

Summary of main findings

Metric	Value	Further information																								
Overall goal of the LTS	Climate neutrality by 2050	• The goal includes all main greenhouse gases. • The goal covers all domestic sectors. • Remaining emissions in 2050 can be compensated by natural sinks, and technical sinks (CCU/CCS). • The use international carbon credits is excluded.																								
Scenarios presented in the LTS	• Up to 2030, the LTS presents results for one scenario, mirroring the National Integrated Energy and Climate Plan (NECP). • Up to 2050, the LTS presents two scenarios: - the “Reference Scenario” 2031–2050 extends the NECP up to 2050; - the “Decarbonisation Scenario” 2031–2050 achieving net-zero emissions.																									
GHG reductions	Modelling results: GHG emission reductions by 2050 compared to 1990 (excluding removals)¹: 84% to 87% (i.e. decarbonisation scenario) Target: No indicative milestones for 2040 and 2050	Emission projections by sectors: <table> <tr> <th>Mio.tCO₂ eq</th><th>2030</th><th>2050</th></tr> <tr> <td>Power</td><td>n.a.</td><td>(30, 18)</td></tr> <tr> <td>Industry</td><td>n.a.</td><td>(55, 22)</td></tr> <tr> <td>Transport</td><td>n.a.</td><td>(60, 0)</td></tr> <tr> <td>Buildings</td><td>n.a.</td><td>(29, 0)</td></tr> <tr> <td>Agriculture</td><td>n.a.</td><td>(28, 23)</td></tr> <tr> <td>Waste</td><td>n.a.</td><td>n.a.</td></tr> <tr> <td>LULUCF</td><td>n.a.</td><td>(-25, -45)</td></tr> </table> <i>Notes: (1) First values under the Reference Scenario, second values under the Decarbonisation Scenario. (2) Buildings includes service and residential sectors. (3) Most of the values based on graphs.</i>	Mio.tCO ₂ eq	2030	2050	Power	n.a.	(30, 18)	Industry	n.a.	(55, 22)	Transport	n.a.	(60, 0)	Buildings	n.a.	(29, 0)	Agriculture	n.a.	(28, 23)	Waste	n.a.	n.a.	LULUCF	n.a.	(-25, -45)
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Renewable Energy Sources	Modelling results: Share of renewables in gross final energy consumption in 2050: 85 to 90% (i.e. decarbonisation scenario)	Main drivers and features: • Electricity production from 95-100% renewable sources by 2050, depending on different assumptions of photovoltaic potentials. • Renewables also in the form of bio-methane and hydrogen. • Expected role of renewable only in industry, transport, and buildings.																								
Energy Efficiency	Modelling results: FEC: 70 Mtoe in 2050 (i.e. 49% reduction compared to 2005², decarbonisation scenario) PEC: n.a. GIC³: 110 Mtoe in 2050	Main drivers and features: • Sectoral energy demand in 2050: Industry: 21 Mtoe, Services 12 Mtoe, Buildings 11 Mtoe, Agriculture 2 Mtoe (i.e. decarbonisation scenario). • Buildings: revamp of energy efficiency (e.g. heating pumps).																								

¹ Calculations, based on the projected GHG emission in 2050, as reported in the LTS (i.e. 65-85 Mtoe).

² Calculation based on data in the LTS supplemented, as required, with data from other Member State reporting under the EU Regulation on Governance of the Energy Union and Climate Action.

³ Gross inland energy consumption is equal to the sum of PEC and energy demand for international aviation.

	(i.e. 42% reduction compared to 2005, decarbonisation scenario ²)	Industries: technological developments (e.g. electrochemical processes).
Estimated investment needs	n.a	Focus on sustainable finance (e.g. green bonds, coordination activities of Italy's independent finance authorities to boost sustainable finance, and initiatives on sustainable finance during Italy's Presidency of the G20 in 2021).
Socio-economic impacts of transition	- Slightly negative impact on GDP (lower annual growth rate of 0.1% over 2030-2040 compared to the reference scenario). - From 2040 the gap is said to widen	- The LTS does not include other socio-economic indicators. - Competitiveness (or risk of) is underscored in relation to intensive-energy sector (notably in the steel industry), CCS and highly innovative technological solutions.
Adaptation Policies and Measures	Yes	The LTS provides a full chapter on adaptation, identifying global change impacts and adaptation needs, linking to Italy's adaptation National Strategy (SNACC), adopted in June 2015.
Public consultation	Yes	A public online consultation took place in 2019, complemented by targeted meetings with associations. Results are included in Annex 1.
Legal status of the LTS and targets	No	- There is currently no law that includes the LTS. - The carbon neutrality target is not legally binding.

Overall completeness of the LTS

- The LTS defines a clear goal for Italy, aiming to be climate neutral by 2050.
- In general, the strategy is developed in detail and projections have been completed up to 2050, although milestones for 2040 are missing.
- The LTS includes most of the mandatory contents. Gaps in mandatory elements are:
 - Emission reductions for the waste sector;
 - Strategies for related research, development and innovation;
 - Estimated investment needs;
 - Socio-economic impact assessment.
- The LTS includes most of the non-mandatory contents (e.g. adaptation policies and measures, projections on renewable energy, energy consumption, transport decarbonisation options, etc.). However, there is no indicative GHG emission reduction milestones for 2040 and 2050.