NATIONAL ENERGY AND CLIMATE PLAN (NECP 2024)

PROGRESS REPORT

Progress of the NECP against emission reduction and transition targets.

25%

2024 → 2030

The NECP is the tool that allows EU Member States to define their policies and measures to achieve energy and climate targets.

The NECP provides a national framework for countries to implement their emission reduction commitments at the national level (Nationally Determined Contributions, NDCs), aligned with the Paris Agreement. It is a document with a 10-year horizon, and it can be updated every five years.

In July 2024, **we analysed the final version of the Integrated Energy and Climate Plan (NECP). As highlighted in our analyses, the Plan is insufficient, both in enabling Italy to achieve its climate targets and to seize the opportunities that come with the transition.** We also have **outlined an alternative approach,** with ideas and **concrete proposals so that the Plan can be more ambitious and effective,** developed in the four macro-sectors of the production and use of energy: **the power, building, industry and transport sectors.**

We now start the monitoring process of the actions to reach the 2030 climate and energy targets. The benchmark for this first monitoring phase is the assessment by the UN Environment Programme **Emissions Gap Report 2024.**

This report outlines the gap that exists between the estimated level of global emissions based on the current national commitments and the reductions in relation to the Paris Agreement goals. Unfortunately, Italy's commitments and the level required to achieve the goal of limiting global warming to 1.5°C.

GOVERNANCE

The term "climate governance" refers to the regulatory framework that enables the establishment of climate mitigation and adaptation objectives, as well as the means to achieve them.

20%

2024 → 2030

ITALY'S OBJECTIVES	CURRENT SITUATION	POLICY ASSESSMENT	EXAMPLES
• A structural governance • An implementation NECP • A system for monitoring, reporting and the possibility to modify policies • A multi-level dialogue between institutions and stakeholders in implementation • Political will to continue on the path towards decarbonisation	• Long-term strategy update • Government initiatives based on the NECP • Adoption of climate legislation • ETIE or CIPESS resolution for NECP approval • NECP Technical Committee • Multi-level dialogue established • Strategic Environmental Assessment	• Presentation of a detailed financing strategy for each policy	• The Structural Budget Plan does not create the conditions to enable a neutral strategy for climate policies to be established • The Decree Law on Suitable Areas has made it possible for Sardinia to establish a clear framework for 80% of its territory as unsuitable for new renewable energy facilities

FINANCING THE TRANSITION

In order to achieve the transition, the volume of necessary financial resources and a strategy for mobilising public and private investment must be defined.

20%

2024 → 2030

ITALY'S OBJECTIVES	CURRENT SITUATION	POLICY ASSESSMENT	EXAMPLES
• A strategy for financing the transition that mobilises public and private investment • Identification of investment needs for the transition (just Transition)	• Identification of investment needs in the Plan and their annual updates • Identification of measures to incentivise private financing • Modifications to the SACE and CDP guidelines • Plan to gradually phase out fossil fuel subsidies, assessment of their socio-economic impacts • Review of investment policies and the exclusion of SACE and CDP investments in fossil fuel projects	• Presentation of a detailed financing strategy for each policy	• In the Structural Budget Plan, the EU has been recognised as one of the factors for economic policy decision-making, but there is no financing strategy that clearly defines the role played by public and private finance

SOCIO-ECONOMIC SUSTAINABILITY

Ensuring that the transition process is socially sustainable requires a consistent political vision, one that establishes policies and measures aimed at addressing the specific needs of individuals.

10%

2024 → 2030

ITALY'S OBJECTIVES	CURRENT SITUATION	POLICY ASSESSMENT	EXAMPLES
• Institutional initiatives to assess the socio-economic sustainability of climate policies and measures • Monitoring and evaluation of the distributional and employment impacts over time • Analysis of the economic-employment effects of the transition (Just Transition)	• Alignment of public spending with socio-economic and climate objectives • Assessment of the distributional impacts of socio-economic and climate policies • Assessment of the employment impacts of climate policies and mitigation • Identification of indicators to characterise energy poverty	• Review of construction incentives to address the regressiveness of those currently available • Development of Social Climate Plans • Development of Just Transition Territorial Plans • Development of a plan to ensure a just transition for workers	• The failure to transfer superficial taxes into standard taxation prevents the internalisation of the cost of energy from a competitiveness and social sustainability perspective • Parliamentary discussion on the Energy Decree (which the majority motion passed on 25 September mandates the government to start the transition particularly in the automotive sector, without an evaluation of its medium-term impacts

RENEWABLES

The transition towards renewable energy in the power sector is the first crucial step towards decarbonisation. European legislation sets a target of 42.5 percent of renewable energy consumption to be achieved by energy sources by 2030. According to the commitment that was made by all the G7 countries, including Italy, fossil fuels are phased out from the power system by 2035.

40%

2024 → 2030

ITALY'S OBJECTIVES	CURRENT SITUATION	POLICY ASSESSMENT	EXAMPLES
• NECP target for renewable energy growth: 70 GW between 2023 and 2030	• NECP not fully aligned with the 2023 RED III target (71 MtCO2eq consumed in electricity system by 2035 • Energy sector emissions (ETS + non-ETS) down 40% (-92 MtCO2eq compared to 2005), largely driven by an increased use of coal • In relation to the 70 GW NECP target, 51 GW installed, 11GW under construction, 8 GW in authorisation • In 2023, renewables grew by 5.8 GW, another 4.8 GW were added in the first eight months of 2024 • Authorisations for new renewables down: – in 2023, 6.3 GW, including 1.3 GW of wind power – in 2024, authorisations continued to grow between January and August, but 2.5 GW gained authorisation but only 0.3 GW were for wind power	• Implementation of the Single Authorisation Regime (SAR) • Renewable Energy Consolidating Act • Decree Law on Suitable Areas • Agriculture Decree Law • FER X Decree • RMSOE auction mechanism for electrochemical energy storage • FER 2 Decree • Energy Release Mechanism • Support for SMEs to self-generate from renewable sources	• The Law on Suitable Areas has made a decisive step in unlocking the development of renewables in the region and across the country, which, according to the Plan, should have installed around 4 GW of renewables by 2030 • Preliminary estimates for the FER X Decree are that capacity could be classified as unsuitable for the installation of new facilities

ELECTRIFICATION OF CONSUMPTION

Electrification is a key step in achieving decarbonisation goals in the transport, building and industry sectors.

30%

2024 → 2030

ITALY'S OBJECTIVES	CURRENT SITUATION	POLICY ASSESSMENT	EXAMPLES
• For the major energy consuming sectors (excluding heavy industry), the Plan envisages a rise to 24.6 MtCO2 by 2030 (compared to 2005 levels)	• The NECP target does not align with the 2023 reduction target (compared to 2005) for transport and Italy, which should achieve a reduction of 118.6 MtCO2 eq by 2035, leaving the country exposed to possible infringement procedures and associated fines • In the ESR sectors, emissions decreased between 2021 and 2022, dropping from 210 MtCO2 eq to 211 MtCO2 eq. Emissions exceeded the annual target by 28 MtCO2eq • Emissions in the transport sector increased from 113.5 MtCO2 eq in 2021 to 109.4 MtCO2eq in 2022 • The share of electricity in the ESR sectors increased in 2022 to 16% for the services sector, 31% for the civil sector, 3% for transport, and 18% for the residential sector, with no significant increases • Emissions in the buildings sector decreased from 63 MtCO2 eq to 57 MtCO2 eq, with the greatest reductions and possible behavioural changes driven by gas prices	• Revision of the Corrib Terminal • Transition 5.0 • Rebate on updating the white certificates • Discussions around the Tyrrhenian Basin and Sicily gas fuelled little transition	• Poorly targeted subsidies that support both electrification and fossil fuels • Bill subsidies that increase the fiscal imbalance between electricity and gas, limiting the measures to save energy or improve efficiency, have not been extended

PHASING OUT GAS

Phasing out natural gas is a prerequisite for achieving climate neutrality in the long term. Italy should establish a strategy for its phase-out.

10%

2024 → 2030

ITALY'S OBJECTIVES	CURRENT SITUATION	POLICY ASSESSMENT	EXAMPLES
• Strategy for phasing out gas, with a clear approach and intermediate milestones.	• 2023: national gas consumption rose 6.7% to 61 bcm. Reduction of 10% on 2022, stabilising at 55 bcm • NECP forecasts natural gas demand in 2030 at 61 bcm • NECP forecasts biomethane demand of 1.1 bcm by 2030; in 2023, the demand was 0.26 bcm • Implementation of the Fit for 55 regulations reduction regulation	• Revision of the Gorino Terminal • Support for the Adriatic LNG terminal • Transition 5.0 • Implementation decree for ETS and ETS2 published, but 50% of the auction proceeds are allocated to the government securities amortisation fund • Process to double the transport capacity from Azerbaijan through the TAP pipeline • Construction of the Adriatic Pipeline • Authorisation process for expanding the Piombino offshore regasification terminal to Vado Ligure	• The analysis by Terna and Snam has been updated with estimated demand reductions of 10 bcm by 2030 and 18 bcm in 2040, between 45 and 56 bcm in 2035, and between 35 and 45 bcm in 2040 • The infrastructures considered in these assessments are the only ones for which the authorisation process has been initiated

INDUSTRY, INNOVATION, WORK

The NECP should have addressed the issue of how to decarbonise manufacturing companies, by focusing on the particular characteristics of the different industrial sectors, and by setting out policies, accompanied by the appropriate financial instruments for managing the social aspects of the decarbonisation process, its impact on employment, and the need for training.

35%

2024 → 2030

ITALY'S OBJECTIVES	CURRENT SITUATION	POLICY ASSESSMENT	EXAMPLES
• Decarbonisation plan for the hard-to-abate industrial sector • Financial tools to manage the social implications of the transition, the impacts on employment and the need for training • Replace fossil fuels through electrification, use of biomass, biogas, biofuels and CCS for process emissions in hard-to-abate sectors.	• Emissions for 2022 in the ESR industrial and construction sectors decreased by around 4.5%, from 46 MtCO2eq to 44 MtCO2eq, but it is unclear whether this reduction was structural • In the ESR sectors, emissions fell from 280 MtCO2 eq in 2021 to 271 MtCO2 eq in 2022, but exceeded the annual targets by 2.8 MtCO2 eq • Over the 2021-2022 period, total industrial emissions decreased by 9.3 MtCO2 eq (186 MtCO2 eq, with a 1 MtCO2 eq rise in the energy sector	• Energy Decree Law • Support for SMEs to self-generate from renewable sources • Transition 5.0 • Implementation decree for ETS and ETS2 published, but 50% of the auction proceeds are allocated to the government securities amortisation fund • White certificates • Gorino Terminus also open to industry • Conversion of the primary energy production plant to a CHP plant powered by natural gas installed on Eest Ferrailles 1 and 2 at the Accialerie Eest site in Piombino (formerly ILVA), currently under extraordinary administration • Construction process for the Piombino steel strategy (Green Pipes)	• Acquisition process for the Piombino steel plant (formerly ILVA) ongoing

TRANSITION TECHNOLOGIES

Public spending should be primarily directed towards those technologies that are best suited to meeting the decarbonisation objectives, based on an assessment of their cost effectiveness.

20%

2024 → 2030

ITALY'S OBJECTIVES	CURRENT SITUATION	POLICY ASSESSMENT	EXAMPLES
• Develop the following technologies in the short to mid-term (by 2030): – electricity storage (batteries); – renewable sources (solar, wind, geothermal, hydro and offshore renewables); – hydrogen; – renewable fuels other than hydrogen; – nuclear; – carbon capture, utilisation and storage (CCUS); – smart technologies and digitalisation; – critical raw materials and advanced materials for the energy sector transition and their related supply chains.	• NECP forecasts biomethane demand of 1.1 bcm by 2030; in 2023, the demand was 0.26 bcm • Estimated total hydrogen consumption: 721 ktoe by 2030. The MASE blended electrolyser production target is 5 GW, compared to the €350 million available • Eni outlined the CO_2 storage potential without defining the priority users, development timelines and maintenance risks, or the public/private responsibilities for managing the sites	• Support for the transition, industrial competitiveness and resilience of strategic supply chains • Strengthening the IPCEI fund for microelectronics, batteries, hydrogen, and digital infrastructure • Consultation process for the Hydrogen Valleys Green Paper, which recognises the importance of hydrogen in the power sector • MASE platform on sustainable nuclear energy to support the country in developing a draft enabling law for the production of electricity from new technologies • Establishment of a CCS committee within MASE • Development of the Terna auction mechanism for procuring electricity storage capacity (MACSE) • FER X Decree still under discussion	• CCS facility in Ravenna (Callisto project), but no information available on the CCS system costs

BUILDINGS SECTOR

With 74 MtCO2eq of emissions, the sector accounts for about 20 percent of national emissions and does not benefit from structural reduction trend. It is one of the sectors where the decarbonisation is more complex and where leverage from the public is crucial.

20%

2024 → 2030

ITALY'S OBJECTIVES	CURRENT SITUATION	POLICY ASSESSMENT	EXAMPLES
• In the buildings sector, the NECP targets a 45% reduction in emissions by 2030 compared to 2005. • The EU's Energy Efficiency Directive (EED) objectives reduce final energy consumption to 112 Mtoe/year in 2022 to 102 Mtoe/year in 2030, with a Mtoe/year saving from the buildings sector. • EPBD targets for residential buildings - 16% of average energy consumption by 2035, -20-22% by 2050.	• Along with other non-ETS sectors, the NECP accounts for the transport sector does not align with the EU target, with the sector leaving the country exposed to possible infringement procedures and associated fines. • 107,49 emissions increased between 2021 and 2022 (+1.5%), from 105.9 MtCO2 eq to 107.5 MtCO2 eq. • Renewable energy consumption compared to the EU target. In 2022, the consumption of energy from RES in buildings was at just 20% of the targets (7.86 vs 7.3 Mtoe), mainly down to liquid biofuels, while biomass consumption remains limited • Road vehicle numbers compared to the EU average: 40 million vehicles, 670 vehicles per 1,000 residents, the EU average is 560. • Number of BEVs compared to the NECP targets: 280,000 vehicles by 2025 and 4 million by 31 December 2030. • Number of electric charging stations nationwide: 57,000	• Use of white certificates to partially replace tax deductions for energy efficiency, implementing the EU's emissions reduction obligations in 2021, savings of 0.16 Mtoe, against the 0.25 Mtoe/year target for 2021-2030. • A policy framework to support the set objectives without clearly specifying which measures and instruments will be used. • Energy efficiency improvements for lower income households or a strategy for upgrading social housing. • Implementation decree for ETS and ETS2 published, but 50% of the auction proceeds are allocated to the government securities amortisation fund	• Constant changes and uncertainty surrounding the establishment and operation of mechanisms related tax incentives (Bonus Casa, Ecobonus, and Superbonus) have actually led to a slowdown in energy efficiency investments in pump installations, and the development of distributed renewable energy in the buildings sector, demonstrating a clear need for a stable policy and incentive framework over the medium term

TRANSPORT SECTOR

Without the decarbonisation of the transport sector, it will be impossible to achieve climate neutrality by 2050. Today, the sector accounts for 24.7 percent of Italy's GHG emissions, with emissions of 109.4 MtCO2eq, showing an increase compared to previous years.

10%

2024 → 2030

ITALY'S OBJECTIVES	CURRENT SITUATION	POLICY ASSESSMENT	EXAMPLES
• Transport sector target for 2030: 51.6 MtCO2 eq, energy consumption of 33 Mtoe • Targets for private road vehicles: 4.3 million battery electric vehicles (BEVs) and 2.3 million plug-in hybrid electric vehicles (PHEVs) by	• Along with other non-ETS sectors, the NECP accounts for the transport sector does not align with the EU target, with the sector leaving the country exposed to possible infringement procedures and associated fines. • 107,49 emissions increased between 2021 and 2022 (+1.5%), from 105.9 MtCO2 eq to 107.5 MtCO2 eq. • Renewable energy consumption compared to the EU target. In 2022, the consumption of energy from RES in buildings was at just 20% of the targets (7.86 vs 7.3 Mtoe), mainly down to liquid biofuels, while biomass consumption remains limited • Road vehicle numbers compared to the EU average: 40 million vehicles, 670 vehicles per 1,000 residents, the EU average is 560. • Number of BEVs compared to the NECP targets: 280,000 vehicles by 2025 and 4 million by 31 December 2030. • Number of electric charging stations nationwide: 57,000	• Management of the transition by the relationship between the latest DPCM for the automotive sector • Review of environmentally harmful subsidies for fuels • Strengthening of charging and refueling infrastructure • Biofuels targets • Achievement of fuel economy consumption targets • Review of the fringe benefits for long-term car rentals to incentivise the take up of electric vehicles	• The position taken by the government in the debate assessing the CO_2 emissions standards regulation for heavy duty vehicles and the authorisation objectives for passenger vehicles manufacturers not support the sector's transition to electric vehicles, exposing the country to the risk of becoming less competitive internationally. • The demand for charging and refueling infrastructure is not in line with the overall target set by the NECP.

- The measure is not effective
- The measure is mentioned but not implemented
- The measure is implemented and effective