



# Greenpeace and WWF Joint Comments on the Greek National Energy and Climate Plan

**Note:** These comments were jointly submitted to the Greek Ministry of Environment and Energy by Greenpeace and WWF Greece, as part of the official NECP public consultation process. Translated in English from the [original](#).

December 3, 2018

## General Comments

The recent report of the Intergovernmental Panel on Climate Change (IPCC), entitled "Special Report on Global Warming of 1.5° C, sets the bar for every national action plan on energy and climate: the complete decarbonisation of the world and a net zero global anthropogenic emissions of greenhouse gases by 2050 at the latest.

The goal of each national Energy and Climate Action Plan (ECEC), and therefore the Greek one's, which is currently in the consultation process, should be the decarbonisation of the economy by 2050. In order to achieve this goal, the NECP should set ambitious energy and climate targets, which can protect Greece from runaway climate change. Objectives that will accelerate - and not slow down - the country's progress towards rapid decarbonisation, within a timetable compliant with the scientific community's warnings and in line with global efforts to limit global warming to 1.5° C.

At this time, rapid action and bold decisions are required.

Taking all of the above into account, as well as the rapid technological advances, the Greek NECP completely fails to meet the challenge. It is merely a relatively ambitious *business as usual* scenario, useful if this debate took place 10 years ago, desperately inadequate for 2018. **In its current form, the NECP is in line with global warming scenarios of more than 3°C.**

In short, the two most fundamental structural problems of the Greek NECP, which essentially make it another *business as usual* scenario, are:

- The government's inability to decide and act on the **definitive end** of fossil fuels for the country and to set a concrete and ambitious phase-out timeline.

- Consequently, the inability to make the necessary structural changes that will bring about the necessary **redistribution of the existing resources** of the Greek economy: from supporting the current economic model, based on fossil fuels, to supporting real, viable and necessary solutions.

Also, the NECP's timeline stops at the year 2040 although according to the relevant guidelines issued by the European Commission (2015), national plans should take the longer term under perspective. Then, this should be incorporated into the long-term strategy of each member state to be submitted to the European Commission by the end of December 2019 at the latest.

There is no excuse for the failure of the NECP to put the country on a fast track to fossil fuels phase-out, that minimizes GHG emissions to zero.

The window for action is closing rapidly. The Greek society is becoming more and more exposed to the consequences of irreversible climate change. It is clear that the Greek Ministry of Environment and Energy is unable to take the bold decisions that are required.

Since the NECP's final legal form and binding nature is also currently uncertain, it **is necessary for the objectives to become binding and to form a cross-party national consensus**.

From all the above, it is clear that detailed comments on the NECP draft text are of minor importance. Nonetheless, in order to contribute to the creation of an effective NECP, WWF Hellas and Greenpeace are submitting the following brief comments on key points of the consultation text.

# Key points

## Data availability and insufficient consultation time

**The scientific basis of the NECP is undermined by a serious lack of documentation.** The reference to using the TIMES model does not provide additional data or a list of the data on which it was based. There is also a deficiency in the documentation of many of the assumptions, but also in the evolution of RES and storage costs.

**The short consultation time is inconsistent with the importance of the NECP.** The unprecedentedly short consultation period of three weeks, coupled with the lack of disclosure of relevant data or supporting studies (except the references cited in Annex 5 of the NECP), is far from what is required in any political and legislative process to ensure a good input of materials and ideas for optimal actions and for effective and timely information, preparation and participation of the public.

**For these reasons, WWF Hellas and Greenpeace have sent a letter to the Ministry of Environment and Energy that analyzes the above and requests an extension of the public consultation period for a reasonable time, as well as the disclosure of the relevant documents, studies, assumptions and estimates produced or / and used in the context of the draft NECP preparation.**

## Insufficient GHG Reduction Targets

The NECP fails to fully set the country to a zero carbon pathway by 2050. With 1990 as a base year, the NECP predicts a reduction in GHG emissions by just 32.4% in 2030 and 40.8% in 2040, instead of 47.4% and 54% respectively if 2005 is used as a base year (as the NECP does).

The proposed reduction is equivalent to a per capita emissions of about 7 tonnes of CO<sub>2eq</sub> in 2030. Based on available UN data, if all the countries of the world followed the example of Greece, emitting seven tonnes CO<sub>2eq</sub> in 2030, the planet would be lead **to a catastrophic temperature rise scenario of 3.1°C to 3.7°C.**

Even this initial significant - and promising - GHG emissions reduction, which stems mainly from the withdrawal of several lignite units and their replacement with RES, seems to end in 2030.

Without adequate explanation, decarbonisation is not completed and lignite remains in the energy mix at least until 2040 and most likely by 2050. Compared to today (2016), oil consumption is reduced by only 18% by 2030 and by 24% by 2040, while to our surprise natural gas use rises (!) by 8% by 2030 and by 24% by 2040. Moreover, the reduction in non-ETS sectors remains feeble (1.5% by 2030 and 7% by 2040).

The mere fact that the energy dependence of the country remains unchanged by 67-68% in 2040 **is a scandalous admission of failure.**

## Redistribution of existing resources

According to the NECP, during 2020-2030 more than 6 billion will be spent on new investments in fossil fuels. This figure does not include investments in hydrocarbon research and drilling, nor

subsidies (direct or indirect) to fossil fuels - currently reaching up to **€1 billion per year**<sup>1</sup> - and are scheduled to continue for an indefinite time period.

The many hidden subsidies to fossil fuels are equally important, since they cause a major problem in the implementation of climate policies and in addressing the structural problems of the Greek economy.

For example, social policy to tackle energy poverty (heating allowance, social residential tariff) is a hidden subsidy for fossil fuels. It supports the existing energy system while keeping vulnerable households in a permanent dependency on this aid. In a country with meaningful and effective climate policy, these funds should be geared towards supporting vulnerable households through energy saving and social solar policy investments instead of consumption subsidies.

Based on the NECP, many billions of euros are expected to be directed to fossil fuels in the coming decades, perpetuating the current, disastrous for the planet, model of energy production and consumption. This is a straightforward attack on any serious attempt to protect the country from climate change. In addition, it doesn't allow sufficient resources for necessary investments, such as in the transport and building sector. In particular, investments towards energy efficiency are projected to be just €9 billion in spite of the great benefit energy efficiency has on the national economy and the creation of new jobs.

## Lignite

The NECP not only does not provide a full lignite phase-out timeline, but cannot provide sufficient explanation as to why the country should remain hemmed in an expensive, highly polluting, obsolete and totally unnecessary technology. It is a political choice in stark contrast to the current trend that both the major energy companies in Europe and most of the progressive European states are gradually adopting.

According to the NECP, existing lignite units and at least a new one (Ptolemaida V, possibly Melite II) will continue to operate in Greece in 2030. The operation of SES Amyntaion is also planned, even though it has used up all remaining operating hours according to the IED. This is an **irresponsible political choice** which, in addition, leads to an unjustified burden on consumers.

According to the European Commission's estimates for the period 2021-2030, CO<sub>2</sub> prices will stabilize at €22.5 per tonne, meaning that Greek lignite units will need to pay up to €500 million a year to emission rights, an amount which, with a simple calculation, **will reach up to €5 billion** for the whole decade. This cost could easily be avoided through energy efficiency, RES and storage. In total, the NECP estimates €1.9 billion for lignite units, which means financing the construction of Ptolemais V, despite the grim predictions about the average price of CO<sub>2</sub>.

However, the most worrying fact is how NECP **undermines the country's climate policy** in favor of specific economic interests. Lignite is by far the most polluting fossil fuel and the power sector should be the first priority for immediate climate action.

The myth of "cheap lignite" must be over. In the final MWh price, which consumers will bear, local environmental impacts, disruption of social balances (such as population relocations) and favorable pricing for selected consumer groups are not taken into account. The NECP includes a general

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<http://www.wwf.gr/news/2172-epidotiseis-sta-orykta-kaysima-xamena-disekatommyria-me-kostos-gia-to-perivallon-kai-ton-katanaloti>

reference to the just transition of lignite areas, while it should have a priced proposal with specific timelines .

WWF Hellas and Greenpeace demand:

- **Cancellation of plans to build new lignite units.**
- Radical upgrading of the old lignite units and a binding timeline for their shutting down by 2030.
- Supporting local societies in their transition to the post-mining, post-lignite era.
- No new gas plants, as they are not necessary in order to achieve high RES penetration.

## Renewable Energy Sources

The NECP includes a welcomed increase in RES in electricity production by 2030. Another positive point is also the emphasis on "special provision" to promote small decentralized RES systems, which are necessary to achieve energy democracy and to address energy poverty and a socially fair energy transition.

However, it is obvious that much more needs to be done and other RES technologies (eg. geothermal energy) need to be used to fully decarbonize the power sector in the 2030s.

Significant parallel decisions will play a key role in adopting more ambitious RES targets, such as the cancellation of new investments in fossil fuels, the rapid promotion of storage, the timely interconnection of ALL Greek islands, the upgrading of grids, the promotion of a decentralized production, the amplification of energy communities and the removal of unjustified restrictions in the installation and operation of renewable energy systems.

Concerning the latter in particular, Greenpeace and WWF point out that while the debate on the country's energy and climate policy is intensifying, RES are still being tackled in hostile ways, and in many cases unnecessary restrictions are in place, putting at risk even NECP's RES targets, let alone the more ambitious targets that are required.

It should be noted that while RES have been blocked horizontally in a huge part of the country, the Ministry of Environment and Energy seems to have no problem bypassing the procedures in order to allocate thousands of square kilometers (within or near Natura 2000 sites) for hydrocarbon exploration and extraction.

## Storage

Without any justification, the NECP delays including storage into the energy mix for well after 2025 and after 2030 its growth remains stagnant. These are inexplicable choices that are inconsistent with international developments and make our country a laggard in the use of cutting-edge technological solutions for the economy.

The most likely explanation is that the delayed and limited entry of storage "justifies" the presence of lignite and oil units in the energy mix for decades, with obvious 'victims' here being climate policy, public health and consumers' money . Since 2015 already, a study<sup>2</sup> by WWF Greece showed that **the**

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<http://www.wwf.gr/news/1370-2015-03-10-10-43-54?fbclid=IwAR1dUNgdKFn34IPCPusHyBUO6itZtYNcygKPNug6lsGPWNP5A0R3jM0dy80>

**combination of RE and hydroelectric storage are more economic options than the construction of Ptolemaida V lignite plant.**

The recent rapid developments in storage technology and consequently the dramatic reduction in the cost of batteries show that not using storage to promote RES is a strategic mistake. According to a data analysis by Greenpeace and WWF, in 2022, the year that Ptolemaida V will likely start operating, the combination of self-production and energy storage by large consumers will be cheaper than buying energy at wholesale price from Ptolemaida V.

## **The building sector**

The NECP's inadequacy regarding the building sector is highlighted by the overall low ambition and the nonconformity to the long-term European obligations of Greece.

The Governance Regulation explicitly requests that the European NECPs take into account Article 2a of 2031/10/EC. The updated 2a Article (amendment 2018<sup>3</sup>) requires states to have: *'a long-term renovation strategy to support the renovation of the national and private residential and non-residential buildings in a highly energy efficient and **decarbonised building stock by 2050, facilitating the cost-effective transformation of existing buildings into nearly zero-energy buildings**'*.

On the contrary, not only does the NECP completely fail to put the building sector into a full decarbonization path, but it even promotes natural gas as a long-term "solution" to heating (an increase of 86% by 2040). As a result, GHG emissions from the cooling and heating of the building sector remain virtually unchanged by 2040.

If Greenpeace and WWF agree on something with the NECP, it is the expected low rate of heat pumps penetration in buildings by 2030 (from 3.7% to 16.7% in final consumption). This is something quite reasonable when the cost of installing heat pumps is still much higher today than the **subsidized** natural gas. It goes without saying that this is a completely wrong choice that Greece is doing today, that the NECP perpetuates in the longer-term. Giving incentive to consumers should move in the direction of the solution (eg heat pumps) rather than the perpetuation of the problem (natural gas subsidies)

The annual rate of suggested home renovations (40,000) - even if we assume the energy upgrades are "radical" (NZEB), which is nowhere suggested in the NECP - is less than 1% of the total of regular housing in the building stock. An ambitious policy of radical upgrading buildings should aim at annual rates higher than 2.5%.<sup>4</sup>

It is a duty of the state to announce appropriate measures and incentives that will leverage the necessary funds. Obviously, these will not come from European Funds, but mainly from the abovementioned radical redistribution of national resources.

Greenpeace and WWF **demand real ambition in the building sector**, both from the NECP and from the long-term energy planning and the Renovation Strategy.

The goal should be to convert the building stock to NZEB before 2050 and nothing less.

## Transport Sector

In the transport sector, the proposed measures and targets also fail to lead to its full decarbonization. GHG emissions are reduced only by 7% by 2030 and by 17% by 2040, the economy remains heavily exposed to oil imports for an indefinite period, while public health continues paying the heavy price of exposure to pollution.

According to the latest figures from the European Environment Agency, small particles pollution in our country, the overwhelming majority coming from the transport sector, accounted for 12,000 premature deaths in 2016.

Greece will have to align with the countries that set ambitious timelines to ban the sale of internal combustion engines by 2030. An integrated central planning by the government, the creation of the necessary infrastructure, the substantial strengthening of public transport across the country and the provision of appropriate incentives can lead to the full decarbonisation of the transport sector before 2050.

In any case, there should be an absolute match between measures and objectives. Even the inadequate target of replacing the fleet of cars with electric vehicles in a large proportion, at a rate of 10%, is unrealistic based on the proposed measures and policies, since it represents around 600.000 vehicles by 2030. On the contrary, the NECP should include ambitious targets with concrete financial incentives to purchase electric cars and the development of electric charging infrastructures. There is also no provision for replacing public utility vehicles with electric vehicles, especially in public transport.

## Hydrocarbons

The political decision to promote the extraction and exploitation of hydrocarbons cannot be taken seriously into consideration when the ultimate objective is the rapid decarbonisation of the country. The same applies to any arguments regarding the security of supply.

IPCCs Special Report on 1.5° C proposes an indicative target of reducing oil consumption by 34.3% by 2030 and reducing total GHG emissions by 45%. If we exclude all IPCC scenarios that rely on unproven technology and suggest an extremely large number of negative emissions by 2100, then oil and gas consumption and total GHGs emissions will have to be further reduced by 2030.

At the same time, international policies for emissions reduction and energy transition to cheaper and cleaner forms of electricity will render a large proportion of current and future capital investment in fossil fuels **stranded assets**. In scenarios in line with keeping global temperature between 1.5°C - 2°C, demand for fossil fuels is expected to peak in the 2020s and then sharply decline, rendering any investments unprofitable, especially for hydrocarbons. These projects will be abandoned (stranded assets) leaving investors and taxpayers exposed to high risk and losses, ultimately weighing down on taxpayers and the national economy.

Despite the above, the government has absolutely no problem to endanger the country's natural environment and the future of local societies in order to promote investment in fossil fuels, the demand of which is expected to decline soon.

In any case, exploration and extraction of hydrocarbons is a high-risk and low-return investment which directly undermines the country's energy transition to a zero-carbon and 100% RES economy.

**WWF and Greenpeace call for a definitive abandoning of the hydrocarbon exploration and extraction program in Greece, in order to protect the climate, our natural environment, the local communities and the national economy.**

## Other Topics

The text does not appear to be binding. The current provisions tend to favor a binding energy plan. These include provisions governing similar projects - such as the National Renewable Energy Action Plan (NREAP), which should be considered as an essential part of the consultation text. This seems to be a conscious choice in order not to subject the text to a **strategic environmental assessment** and, in general, to avoid any legally binding arrangements.

In addition, in order to make the plan operational, it is necessary to match the proposed measures and the responsibility to supervise and implement them with specific ministries and agencies, and to provide **specific monitoring mechanisms for** project's implementation and feedback process.

Finally, the text completely avoids to mention the imposition of **taxes on pollution**, which could allow for other tax reliefs that would have positive social, environmental and economic consequences (eg at employment). On the contrary, this perspective seems to be significantly reduced by other points in the text, such as sub-measure 3.1 "Elimination of taxes and charges borne by competing energy sources (lignite, natural gas, etc.)" of measure 3 ("energy markets").

The text under discussion underestimates the crucial field of research and innovation. For example, the total estimated resources for research and innovation in the energy sector (2020-2030) is €300 million, within a total investment budget of €32.7 billion, that is, less than 1% (Table 13, page 199).

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[1] [https://www.wwf.gr/images/pdfs/Ptolemaida\\_V\\_Alternatives\\_GR\\_web.pdf](https://www.wwf.gr/images/pdfs/Ptolemaida_V_Alternatives_GR_web.pdf)