



## Position Paper

# For a new European energy policy

May 2023

## 1) European energy policy: a late, opportunistic, and inefficient construction

### Liberalisation of markets

While the Treaty of Rome came into force on 1 January 1958, the first "Energy Package" only dates back to 1996. It was based on the Single European Act (1993), which reaffirmed the European objective of removing barriers to trade in goods, services, capital, people, etc., and organised the liberalisation of the gas and electricity markets. A series of directives required network operators to be independent of producers and distributors. Consumers can choose the supplier of their choice, and 'smart' meters (such as Linky) have been made compulsory by the EU to make it easier to change suppliers and increase competition.

### Environmental competence and GHG emission reduction targets

The Maastricht Treaty (1992) conferred environmental powers on the European Union, which it seized on in 2003 to set a European target of a 20% reduction in greenhouse gas emissions by 2020 compared with 1990. Within this same framework, the EU has set up an emissions trading scheme that now covers around 43% of European emissions (industry, energy, chemicals, aviation, etc.); and it has gradually restricted the allocation of emission allowances, the price of which has reached the significant level of €80/tCO<sub>2</sub>, and even more during certain short periods. On the other hand, it does not have the power (unless States unanimity) to introduce a carbon tax that could apply to the remaining 57%.

### Competence in the field of energy and the development of renewable energies

Most significantly, the Treaties of Nice (2001) and Lisbon (2007) gave the European Union explicit competence in the field of energy, first by unanimity (Nice) and then by qualified majority (Lisbon).

The Commission has seized on this by proposing several directives imposing the development of renewable energies (Renewable Energy Directives, or RED). RED I (2001) set a renewable energy target of 20% of primary energy by 2020. RED II (2018) increased this target to 32% by 2030. Other directives set targets for energy savings in general or in specific sectors (housing, transport, etc.). **It should be noted that these directives concern both a target (lowering emissions) and the tools for achieving it (renewable energies, energy efficiency).**

As part of the Green Deal, the Commission proposed on 14 July 2021 to revise more than a dozen energy and environmental regulations and directives, including the RED II Directive. The parties agreed to raise the target for reducing greenhouse gas emissions to 55% by 2030 compared with 1990 [1]; **and an agreement was reached on 30 March 2023 between the European Council, the Commission, and the Parliament on the Renewable Energy Directive, which will become RED III. The full text has not yet been published, but its main provisions have been the subject of communiqués from the Council and the Commission [2]; their consequences are presented at the end of §2).**

### The tools are in place, but they lead to failure

Undoubtedly, the instruments sought by the European Union through these various directives are in place. The power grids are independent and accessible to all. New interconnections have been created. Renewable energies have developed to such an extent that, **overall**, European countries have achieved their 2020 target. Finally, the market for emissions permits is in place.

However, it cannot be asserted that competition has benefited consumers, contrary to the stated objective: any price reductions it has brought to the distribution of electricity or gas have been largely offset by taxes to support the development of renewable energies and by an increase in transmission tariffs. For example, the price of electricity distributed to private individuals rose by 37% between 2007 and 2020, as the 'liberalised' tariffs aligned themselves just below the regulated tariff.

The greenhouse gas reduction targets have been largely exceeded in 2020 (more than 30% compared with the target of 20%), but they only concern emissions from European sources. If one adds the CO<sub>2</sub> required for the production of imported goods minus the CO<sub>2</sub> contained in exported goods, European CO<sub>2</sub> emissions increase. Even if only European emissions are considered, it is hard to see how Europe could accelerate from a 30% reduction in its CO<sub>2</sub> emissions over thirty years (1990-2020) to an additional 20% reduction in just a few years, from now to 2030.

But the main failure of the EU's energy policy concerns its security of supply. As per the Lisbon Treaty "*Union policy on energy shall aim, in a spirit of solidarity between Member States, to: (...) ensure security of energy supply*", oil and gas prices in Europe have soared since mid-2020, largely due to Europe's dependency on Russian oil and gas.

**It is not the implementation of European energy policy that has failed: for the most part, the objectives on which the Union focused have been achieved. The overall failure is, therefore, the result of a poor choice of objectives and poor coordination between them.**

## 2) Poorly targeted and poorly articulated objectives

### A crippling flaw: the inconsistency between objectives and technical means

The primary objective is the decarbonisation of the economy, and successive RED directives have rightly set decarbonisation targets:

Objectives set	Expected reduction compared to 1990
2009 — Directive 2009/28/EC	20 % in 2020 (23 % for France ; 17 % for Germany, even though it is emitting much more CO <sub>2</sub> )
2018 — Directive 2018/1999 (« European climate law »)	40 % in 2030
Regulation (EU) 2021/1119	55 % in 2030

However, not satisfied with setting decarbonisation targets, European policy also defined THE means: developing renewable energies and gradually eliminating nuclear power de facto by refusing to qualify it as a decarbonised energy. This exclusion contravenes an essential provision of the Lisbon Treaty<sup>a</sup>: *"The Union's energy policy shall not affect a Member State's right to determine the conditions for exploiting its energy resources, its choice between different energy sources, and the general structure of its energy supply."*

A second crippling flaw: the means imposed do not make it possible to simultaneously achieve the objective of reducing emissions and the objective of security of supply; they require a massive import of hydrogen

The most essential objective of reducing CO<sub>2</sub> emissions is supported by only one direct means: the EU-ETS market for emissions permits, which covers only 43% of emissions. The European States have refused to delegate to the Commission the power to tax, by qualified majority, the emissions of the remaining 57%. And the Member States have renounced the taxation of this major remaining share.

Yet the development of renewable energies alone is proving insufficient to ensure the energy transition. In fact, the European Union and the Commission, **which should be responsible for this**, have not drawn up any scenario for the development of the energy mix to reach Net Zero Emission (NZE) in 2050. Of course, private or semi-public institutes have done so. They all conclude that ZEN can only be achieved at the cost of massive and immediate imports of hydrogen from countries well-endowed with solar or wind energy. The two most influential Members of the European Parliament on these issues have asked the President of the European Commission to organise a European hydrogen import policy immediately<sup>b</sup>.

Thus, after dependency on Russian natural gas, we are organising dependency on unidentified countries, from which hydrogen produced and transported using undefined technologies (liquid hydrogen, methanol, ammonia, etc.) will be imported.

In this same context, the RED III Directive, **which is the subject of a consensus between the three European bodies (Commission, Council, Parliament)**, is designed around two axes:

- Increase the share of renewable energies (32% by 2030 according to the RED II directive: **42.5% and if possible 45%** according to the RED III directive). Parliament was aware that raising the target very close to the date set for achieving it would be illusory, so it introduced a provision

<sup>a</sup> After the Treaty of Lisbon, this provision was inserted as Article 194 of the Treaty on the Functioning of the European Union. It is specified in article 192-2-c) of the same treaty.

<sup>b</sup> Markus Pieper and Hildegard Bentele - Paving the way for importing hydrogen to Europe – 16 juillet 2021. This letter recalls that European energy policy requires Germany to import 70% of its hydrogen from 2030, this percentage is set to grow.

allowing so-called "green" hydrogen to be produced from electricity generated by burning coal or gas! Fortunately, this amendment has been dropped.

- Organising hydrogen imports. According to Parliament's wishes, each Member State would have to submit its import strategy to the Commission! This would be an explicit renunciation of the principle of subsidiarity and the principle of safety.

All in all, instead of acknowledging the failure of the current policy, the EU is stepping up its implementation. What should be done to avoid persevering in this error? This question is addressed in the following paragraphs.

### 3) The foundations of a new, ambitious industrial and economic policy

European energy policy must be anchored in the objectives set out in the Treaties and, first and foremost, must aim to decarbonise the economy - renewable energies being just one means among others - and ensure security of supply. In practice, the EU must leave it up to the Member States to decide on their energy mix, giving an equal chance to renewable energies and other decarbonised energies, including nuclear power, and assigning the Member States a target of energy autonomy to increase security of supply.

**Return to the principle of subsidiarity: States decide on their mix; only the decarbonisation target is imposed.**

By means of an exceptional regulation (delegated regulation [3]), the Commission has allowed nuclear power to be temporarily (!) tolerated. New projects and life extension of existing installations will thus be able to access the same funding as renewable energies.

But nuclear power remains discriminated against renewable energies. Nuclear production is not included in the Commission's assessment of whether production targets have been met and does not benefit from the support put in place for renewable energies. De facto, this is contrary to the principle of subsidiarity and the recognition that Member States have a free choice of their energy mix. The decarbonisation targets should set the percentages of low-carbon electricity and not the percentages of renewable electricity.

The agreement reached by the European institutions on the revision of the Renewable Energy Directive - RED III - gave rise to numerous communications indicating that Europe was now making room for nuclear energy [4]; if room there is, it is nonetheless completely marginal. In the new Fit for 55 legislation, four themes make an implicit or explicit reference to nuclear: 1) the decarbonisation of industry; 2) access for hydrogen to gas networks; 3) support for "Net Zero" technologies; and 4) the definition of renewable hydrogen. But a detailed reading shows that it is barely tolerated. The last straw is the "Net Zero Technologies" directive, which confers this qualification on nuclear power, but an appendix provides that in order to benefit from financial support, it is necessary to be a **strategic** Net Zero technology, which is not the case of Nuclear power.

While the future energy mix will increasingly rely on electricity, the only vector that can be decarbonised and replace coal and gas, the real issue is to produce enough low-carbon electricity to "decarbonise" the economy. It is therefore reasonable to encourage all low-carbon production, including nuclear. But there is clear competition between renewable energies and nuclear power to contribute to the electricity mix.

For example, for France, according to the RTE 2050 scenarios, 344 GW of renewable energies would be needed in 2050 to phase out nuclear power (a 21-fold increase in the current level of solar

energy, and a 4-fold increase in onshore wind power). But only 165 GW of renewables will be needed by the same date if the life of some existing power stations is extended and 27 GW of new nuclear power are built. What's more, nuclear power is controllable and therefore better able to contribute to grid stability.

The National Academy of Technologies of France proposes quite simply that European legislation and their national versions should not set targets for renewable energy, but targets for decarbonised energy, which should undoubtedly be the real objective in the context of the best possible effectiveness in the fight against climate change.

It is up to the nuclear industry to prove its competitiveness. But there is every reason to believe that, like solar and wind power, it will be able to take advantage of economies of scale if it can develop within a stable framework that allows it to benefit from series orders.

In fact, nuclear installations are built with essentially European added value, and with limited use of critical materials (mainly copper and nickel, in relatively small quantities). It produces carbon-free energy and improves the security of energy supply.

As an alternative or complement to an import-based hydrogen policy, France could aspire to be a hydrogen producer for Europe, with an appropriate mix of nuclear and renewable energies. However, in its current state, European energy policy effectively prevents it from doing so.

#### Energy security must cease to be an incantation - it must (again) become a goal

The inclusion of energy within the remit of the European Union was the subject of lengthy negotiations. Recognition of the right of each Member State to determine the general structure of its energy supply is a counterpart to the extension of European powers to the energy field; it must not be hampered by legislations that de facto impose one energy source to the detriment of another.

The responsibility conferred on the Union to ensure energy security is another counterpart to the enlargement of the Union's competencies in the field of energy. Yet it has seriously neglected this objective. Here again, the solution is simple: the Union must set itself and the Member States quantitative targets for reducing the primary energy deficit.

And as a prerequisite, the EU needs to choose a good indicator for measuring dependency. It should be measured by the value of imports, not by their energy content. It is not at all equivalent to importing one toe of directly usable hydrogen, the added value of which is extra-European, and one toe of uranium which requires major transformation operations in Europe (conversion and enrichment), the cost of which is of the same order of magnitude as that of the ore. The cost of uranium represents only a few percents of the cost of a nuclear kWh, whereas the cost of gas represents 80% of a gas kWh. In other words, doubling the price of uranium affects only marginally the price of nuclear electricity. It is therefore in terms of the trade balance, and not the energy balance, that the Union must set an objective of energy independence; and it must aim to improve independence and not accept its deterioration.

#### 4. In conclusion

Under the Lisbon Treaty, France entrusted its energy policy to the European Union, while reserving the right to choose its energy mix and requiring the Union to ensure security of supply. However, the terms of this agreement are not being respected by the EU. It is all the more important to highlight this fact because what is at stake here is crucial: quite simply, the independence and competitiveness of our national economy.

The solution is simple: in strict compliance with the Treaties, we need to ensure that the Union focuses on the objective assigned to it: decarbonising the energy sector, while leaving the choice of means to the Member States.

## Annex I - Analysis of recent European Union texts mentioning nuclear energy

The agreement of the European institutions on the revision of the "Renewable energy directive - RED III" has prompted numerous communications indicating that Europe is now making room for nuclear energy [4]; if there is room at all, however, it is completely marginal. Four themes are concerned; a detailed examination of the decisions taken or proposed shows that these texts do not in fact give nuclear energy any place in the long term; at most, it is tolerated.

### 1) Decarbonising the industry

The revision of the Renewable Energy Directive - RED III - will impose decarbonisation obligations on industry. It will have to increase its use of renewable energies by 1.6% per year. In addition, by 2030, 42% of the hydrogen used in industry will have to come from Renewable Fuels of Non-Biological Origin (RFNBO) - i.e., hydrogen or hydrogen derivatives [methanol, ammonia, etc.], and by 2035, this figure will rise to 60%. However, these targets may be reduced by 20% for a Member State if :

- The contribution of this State to the overall reduction target [-55%] has already been achieved. It would indeed be a very difficult target for France, which is already highly decarbonised compared to its neighbours.
- The proportion of hydrogen produced by fossil fuels and consumed in this state is less than 23% in 2030 and below 20% in 2035. It is true that this wording, without making it explicit, authorises the use of hydrogen produced by electrolysis using nuclear electricity. However, at present, the proportion of fossil hydrogen is 100%, and hydrogen is mainly produced from methane using the *Steam Methane Reforming* (SMR) process. Going from 100% to 23% or 20% in a few years is obviously a tall order.

In reality, the advantage that the RED III Directive would confer on the production of hydrogen from nuclear electricity is subject to the satisfaction of unattainable objectives. It is therefore difficult to consider that this directive recognises a place for nuclear energy.

### 2) The proposal for a directive on "Access to gas and hydrogen networks".

On 15 December 2021, the Commission proposed a "DIRECTIVE OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on common rules for the internal markets for renewable and natural gases and in hydrogen". This proposal for a directive (2021/0425) introduces the concept of low-carbon hydrogen, defined as "hydrogen, the energy content of which is derived from non-renewable sources, which meets a greenhouse gas emission reduction threshold of 70%". This criterion makes it possible to include hydrogen produced from the electrolysis of nuclear electricity, and hydrogen produced by SMR followed by the capture and storage of the CO<sub>2</sub> emitted. The directive will authorise this hydrogen to use gas networks - which, incidentally, do not belong to the European Union - but will not give it any special recognition or support.

### 3) 3) The proposal for a "Net Zero Technologies" Directive

On 16 March 2023, the Commission proposed a new directive to *establish a framework of measures to strengthen the European ecosystem for manufacturing products using net-zero technologies [Regulation for a zero-net industry]*. The aim of this project is to organise support for the development of technologies that do not emit CO<sub>2</sub>. Just over five billion euros will be devoted to this in the short

term. Latest-generation nuclear energy is accepted as a "net-zero technology" in the main text, which was seen as a major victory in France. But, the supreme hypocrisy is that the support mechanisms are reserved for strategic net-zero technologies; and in an annex to the main text, we discover that nuclear power is not classified as a strategic technology. It shares this singularity with renewable fuels of non-biological origin, the use of which is nevertheless required by the European Union in the RED III Directive and the ReFuelEU Regulation [5].

*"Net zero" technologies according to the regulation*      *Strategic "net zero" technologies according to the appendix*

1.	Renewable energy technologies	Photovoltaic and solar thermal technologies
2.		Onshore and offshore wind and other renewable energy technologies
3.	Power grid technologies	Battery/storage technologies
4.	Heat storage technologies	Heat pumps and geothermal technologies
5.	Electrolysers and fuel cells	Electrolysers and fuel cells
6.	Sustainable alternative fuel technologies	Sustainable biogas/biomethane technologies
	<i>Advanced technologies for producing energy from nuclear processes</i>	<i>No match - these technologies would be non-strategic and therefore not supported.</i>
	<i>Renewable fuels of non-biological origin</i>	
7.	Carbon capture, utilisation and storage technologies	Carbon capture and storage (CCS) technologies
8.	Electricity storage technologies; Power grid technologies; Energy-efficient technologies linked to the energy system	Power grid technologies

**4) Delegated acts defining green hydrogen**

Two delegated acts were adopted by the Commission on 13 February 2023, setting out a very precise definition and calculation methodologies for determining whether or not hydrogen produced by electrolysis qualifies as "green". These two texts, adopted in application of the RED II Directive (2021), confirm that if the European Union is to recognise hydrogen as "green", it must be produced from renewable electricity, and under certain conditions: the electricity must be produced concurrently with its use in electrolysers (temporality principle), and it must come from new production facilities



commissioned less than three years before the electrolysers are installed (additionality principle). This principle is designed to exclude switches in the use of existing decarbonised electricity, without increasing its generation capacity; such pure switches would add nothing to the decarbonisation process.

The delegated acts make an exception to the additionality principle if the electricity network is highly decarbonised (very high percentage of decarbonised electricity or nuclear power): there is, in fact, no point in adding decarbonisation resources to a network that is already highly decarbonised; but the stipulated source of the electricity for hydrogen to be qualified as green remains unchanged; it must be renewable electricity, excluding nuclear power. It should be noted that countries whose electricity mix is still largely carbon-based are, in any case, obliged to develop renewable energies significantly. Therefore, compliance with the additionality principle poses no problem for them.

**Accordingly, these delegated acts leave no room for nuclear energy in the production of hydrogen.**

In summary, while these texts tolerate the existence of nuclear energy, none of them accepts that it can make an effective contribution to the decarbonisation of Europe.

## References

1] Regulation (EU) 2021/1119 of the European Parliament and of the Council of 30 June 2021 establishing the framework for achieving climate neutrality and amending Regulations (EC) No 401/2009 and (EU) 2018/1999 ('European Climate Law')

[2] Council of the EU Press release 30 March 2023 07:55 - Council and Parliament reach provisional deal on renewable energy directive.

European Commission - Press release - European Green Deal: EU agrees stronger legislation to accelerate the rollout of renewable energy. European Green Deal: EU agrees stronger legislation to accelerate the rollout of renewable energy.

3] Delegated Regulation (EU) 2022/1214 of the Commission of 9 March 2022 amending the Delegated Regulation (EU) 2021/2139 as regards economic activities carried out in certain energy sectors (...).

[4] See, for example, Les Echos - Plan vert européen : la France obtient au forceps une reconnaissance du rôle du nucléaire - 30 March 2023, and many similar articles in the daily and weekly press.

5] Regulation of the European Parliament and of the Council on ensuring a level playing field for sustainable air transport.