Shaping Future Energy and Climate Policies in Europe

ENGIE’s vision
## Our recommendations

1. **Climate-Proof Energy**
   
   Natural and renewable gases are the best allies of the energy transition. The EU Emissions Trading System (EU-ETS) should remain a key driver for emissions reduction by accelerating the switch from coal to gas. ENGIE supports a carbon price floor as a backstop measure which will give long-term visibility and predictability to investors.

2. **Efficient Energy**
   
   The benefits of energy efficiency are numerous. They should be supported through energy performance contracts, energy savings certificates and further direct EU funding programmes towards energy efficiency operations. Greening and reducing energy consumption in heating and cooling networks is also a powerful lever to decarbonise dense areas and improve air quality.

3. **Green Energy**
   
   Greening gas, be it through biomethane or green hydrogen, is a powerful means by which the EU economy can be decarbonised in a cost effective way. In France, cost parity between natural gas and biomethane is expected by 2030 and ENGIE believes in a 100% renewable mix by 2050. Setting an EU target for green gas would trigger a positive political signal for investment, as well as being a step towards a carbon neutral economy.

4. **Secure and Affordable Energy**
   
   Securing capacity mechanisms in the power sector and adapting the Gas Market Design to recognise the value of the gas system are two fundamental conditions to guarantee security of supply. Costs can be saved by using existing networks and storage capacities for natural gas, gradually replaced by green gas, to fuel power plants. Interseasonal storage is not affordable without both natural gas and in the future green gas.

5. **Energy for All – Everybody on board**
   
   To make energy transition a success, citizens, workers and cities must be engaged in an inclusive way. Energy efficiency is labour intensive and creates local EU-based jobs. Regulating prices is not the best way to tackle energy poverty and inhibits the empowerment of consumers. Stepping up renovation of buildings and supporting the replacement of outdated heating systems will benefit all EU citizens, especially the most vulnerable.

6. **Innovative Energy**
   
   Investments in research, development and innovation projects are key to develop sustainable growth & competitiveness in Europe. EU funding for breakthrough innovations in the field of energy should receive stronger attention, as well as supporting industry-academic partnerships bringing fundamental research up to industrial application.
Foreword

ENGIE – as a leader of the energy transition – fully supports the European ambitions in the field of climate change and energy transition. At the very heart of ENGIE’s vision of the future are the priorities of energy efficiency, greening energy and empowering consumers, thanks to decentralised and smart energy systems.

ENGIE, being a pioneer in the energy transition, leads the way in enabling a more harmonious progress in about fifteen countries where our teams operate across Europe. We act everyday to produce and distribute ever cleaner energy and help our clients improve their energy usage. We build, through low-carbon power generation, zero-carbon offers as a service, efficient networks and energy solutions, a climate-proof and environmentally sustainable world for both our customers and for future generations.

Making the European Union (EU) carbon neutral by 2050 is an exciting challenge. ENGIE fully supports this objective. However, it can only become a reality if citizens’ purchasing power and the competitiveness of companies are secured. In a deeply uncertain world, where predicting the technologies and economics that will drive a deep decarbonisation by 2050 is a gamble, the best way to succeed is to rely on existing efficient and competitive technologies, while strengthening ambitions for R&D&I.

We believe that a competitive ecological transition is achievable by using existing natural gas networks and storage capacities, gradually replacing natural gas by green gas – such as biomethane or green hydrogen – to supply our customers. Our solutions, be they more energy-efficient boiler systems, green power purchase agreements, energy performance contracts, are aimed at helping to empower our prosumers while improving their purchasing power.

Private actors today account for 70% of the investments needed to limit global warming and 66% in R&D spendings in 2017. That makes the private sector an essential partner for the realisation of EU ambitions in energy. EU policymakers have the ability to accelerate the energy transition by giving clear investment signals that will drive private funds into energy efficiency and clean energy.

In terms of policy recommendations for the next EU Commission, I am pleased to share ENGIE’s view on how to design a future European Agenda to complete the Energy Union and to encourage EU commitments in six major areas for making energy: climate-proof, efficient, green, secure, inclusive and innovative.

Isabelle Kocher,
CEO of ENGIE
Climate-Proof Energy

Making the EU a carbon neutral economy is possible by the middle of this century. This ambition will be supported by ENGIE’s strategy of delivering our zero-carbon as a service solutions for corporations and local authorities. We are offering our customers integrated solutions which combine strategy, design, engineering, energy efficiency, assets, digital platforms, operation management and financing. These tailor-made solutions include smart, energy-efficient equipment, all of which are powered using carbon-free energy, in turn drastically reducing consumption. It is worth noting here that the Group is in the process of succeeding in its own transition with an impressive track record: between 2012 and 2018, we have more than halved our CO₂ emissions and we continue to redirect our portfolio towards decarbonised assets. In 2018, 93% of our activities are low carbon.

A variety of measures can be used and amongst them is our belief in a strong European Emissions Trading System (ETS). Its recent reform certainly is a step forward, but unexpected shocks are always possible. ENGIE supports a Carbon Price Floor for power generation to be used as a backstop measure on the carbon market, providing long-term visibility and predictability for investors. For the ETS to remain a key driver for emission reductions, we need to preserve a robust market stability reserve during its 2021 review.

An indispensable measure to decarbonise the economy is the phasing-out of coal generation in the power sector, which still represents 18% of EU total CO₂ emissions. ENGIE made a decisive shift by disengaging from coal in electricity generation. Today, more than 90% of our activities are low carbon. Natural gas, and progressively renewable gas, thanks to its storage and flexibility characteristics, is the best ally of renewables in the energy transition. EU policies should help to further substitute coal for gas, as the most cost-effective way to meet EU climate ambitions and provide support for territories and people impacted.

As transport accounts for 25% of the EU greenhouse gas emissions, the advancement a far-reaching EU agenda to decarbonise this sector remains decisive: fostering infrastructure for green mobility, building upon a genuine industrial ambition in batteries and supporting all the available solutions, including green gases (biomethane and renewable hydrogen) will be crucial, in particular in long-haul, heavy duty and maritime transport, eventually even air transport.

Efficient Energy

Energy efficiency is the first pillar of the new energy world. As reported by the IEA, 76% of the emission reductions needed to meet the Paris Agreement shall be reached through energy efficiency actions. Energy efficiency has only benefits and no downside: comfort for households, lower energy bills, increased competitiveness for industries, fewer greenhouse gas emissions, and lower energy dependence.

Thanks to its 100,000 employees working in energy services, ENGIE offers a large range of solutions: in heating and cooling, housing, transport, commercial and industrial activities. Reducing energy consumption whilst offering a good level of comfort for families is at the core of our concerns. We believe that energy poverty could be tackled by improving the efficiency of buildings across Europe.

It is worth noting that greening heating and cooling networks represent a fast and efficient way to decarbonise dense areas while improving energy efficiency by economies of scale. They constitute a preeminent vector to promote renewable energy (be they renewable heat, heat recovery, biomass or geothermal) in buildings. They are crucial for EU cities to achieve their climate and environmental targets and improving air quality.

Actions must be taken to unlock investments. Achieving energy saving operations is complex, new mechanisms need to be set up to implement energy efficiency projects and thus help meet the objectives of reducing consumption by 32.5% by 2030. We consider as essential favouring simplified contractual models (energy performance contracts), generalise energy savings certificates, allow strong reliable price signals and further direct European funding programs towards energy efficiency operations.

Green Energy

In the field of renewable electricity, an impressive reduction in construction costs allows for large scale deployment of wind and solar across the EU. This success would not have been possible without upfront subsidies and policy support. ENGIE is a key player in this field, being the first producer of wind and solar electricity in France and the leading renewable producer in Belgium, with significant renewable power activities in other European countries.

Renewable electricity only covers a quarter of the EU final energy consumption. In order to reach the 1.5°C objective, the uptake of renewables will have to massively increase in the other sectors, such as heating, industry and transport. In these sectors, biogases appear as the most credible alternative to fossil fuels. ENGIE is convinced that when looking for a competitive energy transition, greening natural gas and optimising the use of existing gas networks are genuine assets for Europe. The EU should adopt the highest standards to promote biomethane or green hydrogen as a part of future “gas package”. In France, the Group’s objective is to reach cost parity between biomethane and natural gas by 2030 and a 100% renewable gas mix is possible by 2050. ENGIE favours a EU target for the share of renewable gas into the grid.

Financial support is also necessary to encourage research and development as well as deployment and commercialisation of renewable gases for use in heating, industrial processes, power generation and transport.

ENGIE is projecting a 100% renewable world leveraging on technology disruptions. Among them we think that renewable
hydrogen will rapidly find its place. Renewable hydrogen will be used as a storage and transportation solution and be interconnecting different energy systems. According to Hydrogen Council, by 2050 hydrogen is expected to reach around 20 % of the worldwide total final energy demand, in the transport, industry, building and energy sectors. Renewable H2 is already technically mature, but needs financial support to bring the costs of generation down.

**Secure and Affordable Energy**

A reliable access to energy is a key concern for citizens, public authorities and the industry. A growing share of renewable generation in the energy mix represents a prominent challenge for security of supply: intermittent generation must be backed up by a dispatchable and low emitting source of energy, be it thermal generation fuelled with gas or hydro. For these technologies to be competitive the EU must provide an efficient market design aimed at ensuring security of supply for all consumers in an affordable way. Securing capacity mechanisms when Member States deem it necessary in the power sector and adapting the gas market design to recognise the value of the gas system are fundamental.

Costs can be saved by using existing networks and storage capacities of natural gas, gradually replaced by green gas, to fuel power plants. This reinforces flexibility in the system by providing a reliable and cheap source of energy for citizens to heat their houses and for industries to run their processes. Intersseason storage solution is a far more realistic and economic option than a full electrification vision of decarbonisation.

A secure and affordable access will require networks, both gas and electricity, to be fully smart and flexible to cope with the intermittent nature of centralised and decentralised solar and wind power generation. ENGIE sees smart micro-grids and active local energy communities, as means to support and bring robustness to the existing grids and to avoid excessive investments in new infrastructure.

**Energy for All – Everybody on board**

It is crucial for ENGIE to engage in an inclusive transition (citizens, workers, communities, etc.) which comes along with new quality jobs throughout Europe, consequently bringing value for the whole of society. Energy efficiency is especially labour intensive and allows for local and European-jobs to be created.

On retail markets, the empowerment of consumers via self-generation, demand side response and dynamic pricing allows a recognition of energy at its fair value. It is therefore appropriate to phase out any price intervention in the retail market and to enable the development of market offers that improve the customers’ experience (green offers, electric mobility, energy bundled with services, etc.). Regulated prices should be removed in the short term to allow this consumer empowerment. It is therefore essential that the conditions for maintaining regulated electricity tariffs are closely monitored at European and national level as set up by the new directive on market design.

**Tackling energy poverty** is another priority. Sustainable and targeted measures (via general taxation or through energy efficiency financing schemes) should be the preferred solution to allow more vulnerable families to benefit from the energy transition. For the 50 million European citizens confronted with energy poverty, the EU should support strong action by stepping up renovation of buildings and by supporting the replacement of outdated heating systems, especially for the poorer households who live in the less energy-efficient buildings.

**Innovative Energy**

Investments in research, development and innovation (R&D&I) projects are key for developing sustainable growth & competitiveness in Europe, as well as having a high positive impact on citizens. The Group’s R&D expenses amount to more than 180 million euros per year and our research & technology teams bring together nearly 1,000 employees. Our lines of action include decentralised generation of energy, energy storage, demand side management, intelligent energy redistribution in networks, digital control of energy efficiency, smart grids, energy performance of buildings, and solutions for cities and territories.

ENGIE welcomes the Commission’s proposal to strengthen European funding for R&D&I, especially through Horizon Europe and the creation of an Innovation fund. We also welcome the proposal to strengthen funding through the LIFE programme and to broaden its scope to measures promoting energy efficiency and clean energy. ENGIE is in favour of more ambitious measures in mainstreaming climate and environmental goals across all EU funding programmes and policies (at least 35%).

EU support for breakthrough innovations in the field of energy (such as a cheap and clean way to produce, store and transport renewable hydrogen, a new battery chemistry facilitating drastic cost reductions, a cheap ocean energy technology, …) should receive even stronger attention through supporting industry-academic partnerships that take fundamental research through to industrial application, and by creating ‘free zone’ pilot areas allowing for testing innovations at scale. Pilot and demo installations are key for understanding the potential and limitations of new, possible game changing technologies.
About ENGIE

Our group is a global reference in low-carbon energy and services. In response to the urgency of climate change, our ambition is to become the world leader in the zero carbon transition of our customers, in particular businesses and local authorities. We rely on our key businesses (renewable energy, gas, services) to offer competitive turnkey solutions as a service.

With our 160,000 employees, our customers, partners and stakeholders, we are a community of Imaginative Builders, committed every day to more harmonious progress.

Key figures 31 December 2018

• 60.6 billion of revenues
• €11 to €12 billion of investments
• 104 GW of installed power-production capacity
• 1st World’s leading independent power producer (IPP)
• 1st Europe’s leading distribution network for natural gas
• 1st Europe’s leading seller of natural gas storage
• 1st World’s leading provider of energy-efficiency services
• 350 urban networks for heating and cooling operated in the world