

## ENERGY TRANSITION GOVERNANCE FOR BETTER ENERGY SECURITY IN EUROPE

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The European Green Deal<sup>1</sup> pledge of the incoming European Commission confirms that energy transition and the European Energy Union<sup>2</sup> will remain centre stage in European policy-making. The combination of new regulatory and technological innovations, the deepening of the interactions between energy and climate policies, and the corresponding shifts in individual and collective behaviour opens **new opportunities for business and society** to benefit from the energy transition. But they also provoke **new governance challenges** to both policy makers and citizens. The advent of the prosumer,<sup>3</sup> the energy producing consumer, as a foundation of successful energy transition, requires profound changes at the EU, national, local, and household level. In particular, the need for increasing the social acceptability and public awareness of energy transition policies, puts new emphasis on the **energy security four-fold challenge** of availability, reliability, affordability and sustainability.<sup>4</sup> Solving this complex challenge requires understanding of the factors influencing household

<sup>1</sup> European Commission. 2019. *A Union that strives for more. My agenda for Europe*. By Candidate for President of the European Commission Ursula von der Leyen.

<sup>2</sup> European Commission. 2019. *Fourth report on the State of the Energy Union*. The European Commission, Brussels, 9.4.2019, COM(2019) 175 final.

<sup>3</sup> European Commission. Directorate-General Justice and Consumers. 2017. *Study on Residential Prosumers in the European Energy Union*. Brussels.

<sup>4</sup> Elkind, J. 2010. Energy security: Call for a broader agenda. In: Pascual C. and J. Elkind (eds). 2010. *Energy security. Economics, politics, strategies and implications*. Brooking Institution Press. Washington, D.C.

### KEY POINTS

- Energy transition will remain central stage to European policy-making, with the pledge of the **European Green Deal** of the incoming European Commission.
- The origin and implementation of the energy transition policies in Europe divide the countries into policy takers and policy makers. **Improving energy transition governance** is critical to overcoming differences between the two groups and achieving common European goals across all energy transition areas.
- The majority of European citizens see energy transition as foremost related to the use of **wind and solar energy** for small-scale decentralised power production. But even governance in this area has suffered from unstable political commitment and differences in public acceptance across Europe.
- The governance of **bio-energy** suffers from lack of political commitment and public interest, which has resulted in underdevelopment of its legislative and institutional framework.
- The **electrification of vehicles** benefits from being industry- and market-led and together with wind and solar is the field with the strongest R&D efforts and innovations.
- The **energy efficiency** governance often shows lack of clear policy measures in most of the countries despite the binding targets they committed to.
- European energy and climate policies still face **security challenges** regarding regulatory framework, market integration and liberalisation, and affordability. Member states lack the tools and often cannot reach a consensus over joint energy security issues at the expense of separate national or business interests, often influenced by external to the EU countries.

prosumption choices, in the first place. But it also calls for **adequate energy transition policy choices and effective tools** to steer quickly through the changing energy security landscape. Europe, as a large energy consumer faces different choices from individual member states. Navigating these choices has become more complex and challenging amid continuing environmental challenges, the souring of US – China trade relations and the resurgent Russia confrontation. Consumers have grown more **concerned with the rising cost of energy transition**, in particular in lower income member states in Central and Eastern Europe. Russia's strategic political projects in gas supply like Nord Stream 2 and Turkish Stream have divided the European Commission and member states.<sup>5</sup> Similarly, LNG terminals and shale gas development have attracted supporters and opponents, with no common European policy in sight.<sup>6</sup> New nuclear power plants such as Paks II in Hungary, Hinckley Point in the UK, Belene in Bulgaria have underscored the importance of designing and implementing socially inclusive and sustainable policies alongside the economic benefits and energy security.

## Energy transition governance in Europe

The European energy transition governance can most effectively be exemplified by four areas of the European Energy Union: new renewables (wind and solar), bio-energy, e-mobility and energy efficiency. This section presents the findings in each of the four governance areas from case study analysis in nine countries in Europe.<sup>7</sup>

Despite vast national differences in the progress towards low-carbon economy and society, most of the European citizens see energy transition as foremost related to the use of **wind and solar energy** and the corresponding opportunities for the development of small-scale decentralised power production, i.e. **the emergence of prosumers**.<sup>8</sup> The sector of wind and solar energy seems to have also received the most

political attention and commitment on EU and national level, such as financial and legislative support. However, the governance of wind and solar energy also **suffers from lack of adequate policy implementation**. The identified governance deficits are not only related to the corresponding legislation, but also to the implementation of support schemes, a separation of competences across the authorities, strong lobbying in the energy and climate sectors, a lack of financial and human resources as well as over-regulation.

Unlike wind and solar, the governance of **bio-energy** (i.e. use of bio-fuels in transport, production of heat and electricity from bio-mass) suffers from stronger lack of both political commitment and public interest. This has resulted in underdevelopment of the legislative and institutional framework of this particular sub-sector of renewable energy in all nine countries. Bio-energy policies most often suffer from unclear separation of competencies between the respective authorities and from a lack of public information that could serve both households and business investors.

The **electrification of vehicles** despite the great promise it holds, is only making its first steps in all nine analysed countries. The key constraints in this respect are the lack of ambitious national policies for the industry and transport but also due to technology related difficulties. Its governance depends also on the **policy subsidiarity in the energy sector**, i.e. a country needs to reach a certain level of development of renewable energy, bio-energy, energy efficiency and tackling energy poverty in order to create the pre-conditions required for the development of e-mobility. The governance of e-mobility also has a **two-fold affordability challenge**. On the one hand, the high cost of the required initial investment threatens the inclusiveness of the relevant policies. On the other hand - the overall cost of the introduction of e-vehicles in a country, if not properly regulated, could easily result in burdening the poorest consumers. However, the major driver for the progress of e-mobility remains the fact that it is industry- and market-led. Together with wind and

<sup>5</sup> Center for the Study of Democracy. 2015. *Policy Brief No. 47: EU and NATO's role in tackling energy security and state capture risks in Europe*. CSD, Sofia.

<sup>6</sup> Center for the Study of Democracy. 2018. *Policy Brief No. 81 Energy Security in Southeast Europe: The Greece-Bulgaria Interconnector*. CSD, Sofia.

<sup>7</sup> Bulgaria, France, Germany, Hungary, Norway, Poland, Serbia, the United Kingdom and Ukraine.

<sup>8</sup> *Synthesis case study report on governance barriers to energy transition*. ENABLE.EU working document.

solar it is the field with the strongest R&D efforts and innovations.

The governance of **energy efficiency** shows lack of clear policy and goal-setting at national level in most of the nine analysed countries, despite the binding targets most of them have committed to at European level. In some cases, **unexpected externalities** have influenced the direction of the relevant policies. For example, Norway has disregarded energy efficiency as a problem, arguing that 99% of its electricity is produced from renewable energy (hydro and wind). In countries with high level of energy poverty like Bulgaria, Serbia and Ukraine, energy efficiency suffers from an **affordability issue** and the countries struggle to enact and implement an effective energy efficiency policy. Still, the governance of energy efficiency benefits from the fact that it is the “lowest-hanging fruit”, available to all countries and at the same time, natural priority for business enterprises aiming at improving their competitiveness.

For all four areas of energy transition governance, outlined above, the **policy origin** is also problematic, clearly dividing the countries in Europe into two groups. Some of them, such as Poland, Hungary, Serbia, Bulgaria and Ukraine are seen as **policy takers**.<sup>9</sup> They tend to have largely hierarchic, top-down governance structures, which try to comply with the European agenda set in Brussels, often via ad-hoc decision-making, without comprehensive and coordinated national policies in the respective domain, and with very limited stakeholder participation. Others, like Germany, the UK, Norway and France are seen by most as **policy makers**. They tend to have horizontal or polyarchic mode of governance with multiple opportunities for bottom-up initiatives and for influence and shared control by broad set of stakeholders over the policy lifecycle. They are seen as having national policies, which they spread as an example through Brussels.

Despite the differences among the countries, several **common challenges or deficits** in the design and implementation of the energy transition governance in Europe have been identified. These point out to policy areas that need improvement and attention on both national and EU level:<sup>10</sup>

- **Unstable political commitment**

One of the prevailing issues is the **unstable political commitment** to energy transition, which has usually led to a “**stop-and-go approach**” in governance. Many countries have experienced it, while enacting legislation concerning different decarbonisation goals. While the introduction of the legislation has been agreed at European level and has respectively been carried forward at national level, some countries have delayed important bylaws and relevant procedures such as the delivery of permits, grid connections, charging infrastructure, R&D support, etc. Furthermore, old carbon-intensive energy generation, including coal power plants, are not systematically retired to make way for renewables due to social or economic reasons. This in turn often contributes to a complex regulatory framework, often lacking transparency, with many pieces of legislation working at cross-purposes without a clear division of responsibility or jurisdiction.

- **Ineffective coordination between national, regional and municipal level**

Energy transition policies failing to consider the intrinsically decentralised character of the new renewable energy sources are often responsible for worsening the cooperation between municipal, regional and national institutions, which is critical for the existence of effective renewables’ support framework. The level of political centralisation varies between the nine case study countries. Experts in France (arguably being the most centralised EU member-state) highlighted to that purpose the dominant and centralised role of the state in policy making and the lack of coordination between regional and local level, often leading to inefficient legal implementation. For example, even if the so-called Regional Plans (e.g. SRADDET) in France are supposed to reinforce one another for better coordination, in reality, such links are negligible and even missing and the competences and funds are often fragmented between very small entities.

- **Administrative barriers**

Poorly designed legislation in some of the countries also often leads to procedural and administrative

<sup>9</sup> Schultze, Cl. 2003. Cities and EU Governance: Policy-takers or Policy-makers? In: *Regional and Federal Studies*, Vol. 13, No. 1, Spring; Brunazzo, M. 2010. From Policy-Taker to Policy-Shaper: The Europeanization of Italian Cohesion Policy. In: *World Political Science Review*, Vol. 6, Issue 1.

<sup>10</sup> Based on *Synthesis case study report on governance barriers to energy transition*, ENABLE.EU working document.

bottlenecks to effective energy transition policy implementation. The overlapping administrative and judiciary procedures for issuing permits and licences create delays in the deployment of renewable energy sources and impede investors' decisions. This is further worsened by the lack of "one-stop-shops", which offer reliable overview of all the necessary procedures and documents along with a competent advisory support. Facing such cumbersome procedures requires the familiarization with a great number of laws and by-laws defining procedures, specific documentation and deadlines, potentially discouraging investors.

- **Human resources' deficits**

The shortage of qualified human resources in the public administration and the lack of skills and training in highly-specialized and technology-driven fields such as renewables or biofuels, is an institutional barrier, which has been faced by all analysed countries and which has negative repercussions on investors and citizens alike. For potential consumers, this translates into lack of experience in the preparation of bankable projects to be submitted to funding institutions. The administrative **turnover in employment**, further contribute to the instability and delay of energy projects. In France, for example, energy-related positions can change as often as every six months in municipalities, due to subsidised short-term contracts for young people. In Bulgaria, Hungary, Ukraine and to a certain extent – in Poland, the frequent and politically-motivated turnover in the top management of energy companies denotes a further problem of independence from political influence and can make to a large extent both political commitment and strategy inconsistent.

- **Lobbying and 'revolving door' practices**

As long as strong ties between public authorities and companies exploiting conventional energy exist, the energy transition proves to be very difficult. Often, these ties and lobbying are supplemented by 'revolving door' practices, i.e. policy officials, who design policies to benefit particular businesses are either

coming from the same business sector or are subsequently employed by these businesses. The analysis reveals such examples from France, Serbia and Bulgaria, but expert assessments highlight this problem as well-spread in all countries except Norway. In addition, it is outlined that in France, a network of like-minded decision-makers in energy companies and in ministries contributes to the inertia of the energy sector where executives of major incumbent companies mutually protect their current positions rather than foster and accept change in favour of the energy transition.

- **Market and financial bottlenecks**

The liberalisation of the energy market still remains a problem for all case study countries. Monopolistic energy markets can be considered as a major impediment for decarbonisation and investment in renewables. The liberalisation of the electricity market is still far from being fully implemented even in countries like France and Germany.<sup>11</sup> Furthermore, an inadequate financial strategy for decarbonisation is often the reason for insufficient progress. In many cases, support mechanisms do exist as defined under the corresponding EU Directives but their implementation is not well adapted to each country and often is deployed in a "one size fits all" manner. For instance, following the Renewable Energy Directive,<sup>12</sup> some countries still lack tax relief, quota system, green certificate schemes or guaranteed price, even though all of them have approved National Renewable Energy Action Plans. On the other hand, poorly designed tariff systems can lead to market failures (e.g. Energy Efficiency Green Deal in the U.K.), or, in some contexts, to the hijacking of such support in order to benefit private interests at the expense of governments and tax payers (e.g. Ukraine and Bulgaria).

The cost of administrative procedures related to licensing and required permits for the implementation of decarbonisation measures (from installation of new generation technologies to energy efficiency measures in industry or construction of e-vehicles charging points) are high and varying to an important

<sup>11</sup> The liberalisation of the electricity market in France is assessed by experts as only slowly moving forward, while Germany was brought to the court by the European Commission in 2018, because of insufficient implementation of the Third Energy Package (the Federal Network Agency is not considered as sufficiently independent, as well as the unbundling of energy providers and TSOs was not effectively finalized).

<sup>12</sup> *Directive 2009/28/EC of the European Parliament and of the Council of 23 April 2009 on the promotion of the use of energy from renewable sources and amending and subsequently repealing Directives 2001/77/EC and 2003/30/EC.*

extent between local authorities in the same country. This, along with the lack of transparency, poor operational instructions and procedures, or lack of accredited standardisation and licensing laboratories, are also important deterrents for investors.

- **Public acceptance**

Public acceptance and support are fundamental to the energy transition and the lack thereof often translates into a lack of political will to take necessary measures, to opaque reforms, inconsistent commitments or energy populism. There are many examples to this effect, such as: (i) the implementing of a carbon tax in Germany; (ii) the phasing out of coal power plants in Bulgaria, Hungary, Poland, Serbia and Germany; (iii) the division of energy transition policy among different ministries and authorities, thus scattering both responsibilities and competencies in the UK, Bulgaria, Serbia or Poland, etc.;<sup>13</sup> (iv) France's continuous postponement of nuclear power plants' decommissioning and its ambitious objective of a 38% reduction in the energy consumption in buildings by 2020 neglected since it was decided in the 2007 *Grenelle de l'environnement*.<sup>14</sup>

Institutional barriers and politically motivated populism are also critical sources of low social acceptance for renewables energies. They create a scarcity of information and a misleading end-user knowledge that often translate into reluctant behaviour. It concerns both the potential benefits of renewables and the negative consequences of the use of fossil fuels. In Serbia, for example, there is a general public perception that climate and energy policies are designed and implemented by the government merely due to EU accession requirements and research indicates that citizens do not recognise the effect of industrial pollution on their health or on the economy. At the same time, renewable projects often compete with specific local groups' interests and raise environmental concerns (impact on landscapes, biodiversity) along with security considerations (e.g. wind mills and

civil and military radars in the U.K.).<sup>15</sup> The negative impact from renewables on the environment is also a widespread opinion in Norway, Germany, the United Kingdom and France.

## Energy security concerns

Overall, a harmonisation of national policies among the different economic sectors is needed in all countries in order to reach energy transition decarbonisation goals. To that purpose, a **diversification of energy sources**, incl. beyond renewables, is deemed fundamental. The countries also have chosen different energy transition paths that influence to an important extent the quality, speed and trend of the transition, e.g. nuclear-based vs nuclear phase-out transition respectively in France and Germany. Thus the energy transition governance has not only internal but also geo-political aspects that are grasped by the national energy security policy and its main components – availability and access to resources, reliability of supply, sustainability and affordability.

The differences among the European countries lay down the divergent levels of energy security among them with Norway, the UK, Germany and Poland being the most secure, and Ukraine – one of the worst, according to the International Energy Security Risk Index.<sup>16</sup> As the index' report underlines, since 1980 Norway has never slid below third place in the country ranking and its recent position is about 20% better than the OECD average score. On the contrary, since 2014 Ukraine keeps its position as one of the least energy secure countries globally and in Europe, mostly due to political instability, which followed the annexation of Crimea by the Russian Federation.

Beyond external factors such as the crude oil price volatility, which affect all countries in Europe, the governance issues that have influenced European countries' energy security in the last five years have been mostly related to the geo-political turmoil in

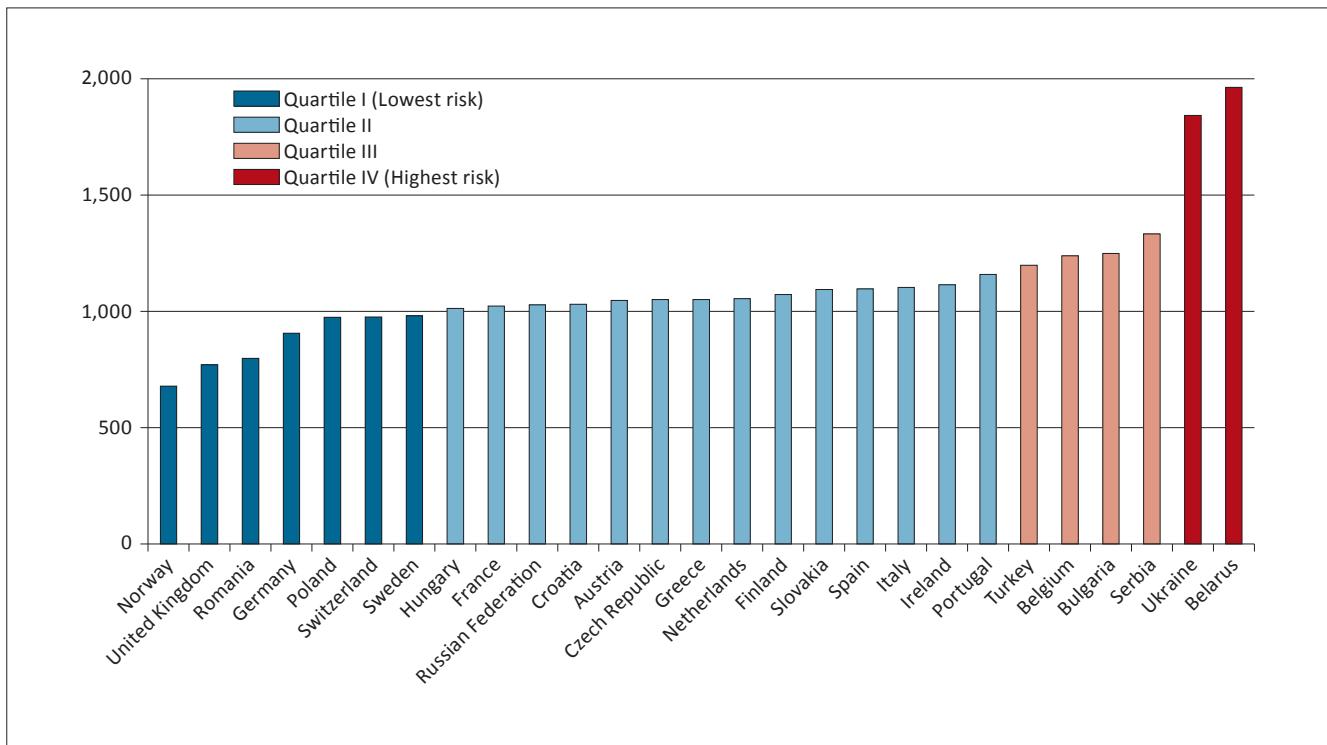
<sup>13</sup> Detailed country analysis could be found in: *ibid*.

<sup>14</sup> *Grenelle de l'environnement* was an open multi-party debate in France that brought together representatives of national and local governments and different organizations (industry, labor unions, professional associations, non-governmental organizations, etc.). Its aim, as formulated by then President of France, Nicolas Sarkozy in 2007, was to define an action plan with concrete measures to tackle the environmental issues over the next five-year period.

<sup>15</sup> The UK Ministry of Defence initially objected to a number of large-scale wind-park developments along the coast over fears that they will interfere with the new mobile radar systems, part of the Britain's early warning system. A coalition of large energy companies has conducted broad and highly-costed tests on the issue, to overcome these concerns.

<sup>16</sup> Global Energy Institute. 2018. *International Index of Energy Security Risk*. Washington, D.C.

Figure. Index of Energy Security Risk



Source: International Energy Security Risk Index, edition 2018, Global Energy Institute.

relations with external energy suppliers. In particular, Russia continues to be the main supplier of gas to Europe, as well as of nuclear technology and fuel for Central and Eastern European countries. The governance barriers and deficits, outlined above for all the countries, often have reinforced the ability of private business and political interests, including foreign ones, to benefit from their existence.<sup>17</sup> Diversification and liberalization of energy markets have been delayed in most of the analysed countries. In particular, the gas market has remained the most monopolistic one, despite the positive role in this respect of liquefied natural gas and European regional gas infrastructure projects. The controversial political and economic rationale<sup>18</sup> for the realisation of the Russia-backend gas projects Nord Stream 2 and Turkish Stream, has not prevented their advancement to the detriment of overall European energy security. At the same time Europe has abandoned its own strategic initiatives in the gas domain, such as the Nabucco project and has considerably delayed

the implementation of several gas-related “projects of common interest”, most notably gas interconnections in Southeast Europe.

The advancements in renewable energy, energy efficiency and decentralisation of power production, which have been the cornerstones of the European energy transition, have leveraged positively three of the four energy security components – sustainability, availability and reliability, for all of the countries. However, three **major challenges with important energy security implications** still need serious political attention:

- **Regulatory framework**

Despite the sizable advancements in the European energy and climate regulatory framework, the EU’s Energy Union objectives and 2030 targets are still threatened not to be achieved according to the Commission assessment of the draft integrated Na-

<sup>17</sup> Shentov, O., R. Stefanov and M. Vladimirov (eds). 2018. *The Russian Economic Grip on Central and Eastern Europe*. Routledge, London and New York

<sup>18</sup> In December 2018, the European Parliament issued a resolution, which called on the cancellation of the project and name it “a political project that poses a threat to European energy security”. See [European Parliament resolution of 12 December 2018 on the implementation of the EU Association Agreement with Ukraine \(2017/2283\(INI\)\)](#).

tional Energy and Climate Plans (NECPs), published in June this year.<sup>19</sup> Moreover, the governance barriers and deficits in the implementation of energy transition policies, presented above, hamper the effective enforcement, even if the proper regulatory framework is put in place. Yet, the European Union is the first major economy to put in place a legally binding framework for achieving the Paris Agreement. However, further and deeper harmonization of policies across sectors and policy areas is very much needed on national level, esp. in policy-takers countries.

- **Market integration and liberalization**

As noted above, Europe has delayed the achievement of its targets towards market integration and liberalization, including regarding the implementation of the Third Energy Package, the Energy Union Strategy and interconnectivity projects like the Southern Gas Corridor.<sup>20</sup> One of the major concerns is still the difficulty in reaching a consensus among the Member States over major energy security issues, at the expense of separate national interests. The progress towards market integration and liberalization currently threatens to divide the countries in Europe into two groups and to contribute to the development of energy transition “on two speeds” mainly due to governance deficits.

- **Affordability**

Energy transition policies have to deal with the balance between the introduction of new technologies and behavioural patterns and their possible negative social and economic impacts. For instance, “socially acceptable and affordable price” of energy is ranked first among the desired political priorities of the respective national policies by the highest share of citizens (72%) in all the nine analysed countries.<sup>21</sup> Affordability concerns both the most wide-spread renewables such as solar and wind (low-income, long-term unemployed and women are underrepresented among the private prosumers and energy communities),<sup>22</sup> as well as the newest one – e-vehicles (high

initial cost and lack of charging infrastructure in rural and underdeveloped regions). Specifically-designed policies on national and European level, including publicly subsidized programmes and new financial models for socially inclusive investments in renewables<sup>23</sup> have been implemented by public and private stakeholders in many countries but still large groups of the European citizens can’t afford to benefit from the low-carbon options.

## Next steps

Further and deeper **harmonization of national policies across sectors and policy areas**, following the European strategic priorities, is highly needed on national level in all countries but particularly in less developed Central and East European ones. The countries leading the energy transition such as Germany, Norway, the UK and France, also need more effective policy implementation in order to overcome the ambitions gaps between national and European priorities. Governments must pay higher attention to all sectors, because except for electricity generation from renewables, **financial and regulatory instruments** needed for full-scale deployment of low-carbon technologies **are generally missing**. Thus, large groups of the European citizens are still not able to benefit from the **incentives and drivers for a shift in individual behaviours**. The existing administrative barriers and governance deficits in energy and climate policy hamper the implementation of the energy transition priorities but also worsen the energy security of the countries and the EU. To ensure effective and beneficial to all energy transition, the EU and the national governments should implement a series of policy options, aiming to:

- Secure **long-term** political, financial and social **commitments** across the various policy areas on both national and European levels.
- Ensure **stronger bottom-up approach and wider stakeholders’ involvement**, as well as overcome the “stop-and-go” approach in national and re-

<sup>19</sup> European Commission. 2019. *Press release “Energy Union: Commission calls on Member States to step up ambition in plans to implement Paris agreement”*. Brussels, 18 June 2019.

<sup>20</sup> Atlantic Council. 2019. *Issue Brief European Energy Security and Transatlantic Cooperation: A Current Assessment*. Washington D.C.

<sup>21</sup> *Final report on comparative sociological analysis of the household survey results*. ENABLE.EU working document.

<sup>22</sup> *Synthesis report on the “from consumer to prosumer” case study*. ENABLE.EU working document.

<sup>23</sup> Lowitzsch, J. (ed). 2018. *Energy Transition. Financing Consumer Co-Ownership in Renewables*. Palgrave Macmillan.

gional policies, particularly in Central and Eastern Europe and EU candidate countries.

- Ensure permanent improvement of **human resources** in the energy and climate sector's public administration, particularly avoiding political interest groups' influence and "revolving doors" issue.
- Ensure transparent and cross-country **evidence-based assessment of the energy policies implementation** through the introduction of new policy instruments for monitoring the progress but also the quality of governance, e.g. EU Energy Security Risks Index or new monitoring tools on National Energy and Climate Plans and Strategic Energy Technology Plan.
- Make direct links between the Strategic Energy Technology Plan priorities and the targets of the **2030 climate and energy framework**, as well as the 2050 low-carbon framework.
- Ensure stronger links in the planning and implementation of **European Structural and Investment Funds' programmes on national level** to the 2030 and 2050 frameworks' targets and priorities.
- Mitigate **affordability issues** by focusing on individual and community level incentives and by avoiding **abuse of public spending** due to low governance standards in some of the countries.