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Policy | brief

European Energy and Industrial Policy Realigned: Risk or Opportunity for EU Eco-Innovation Strategy?

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Europe's eco-innovation strategy fuses industrial, energy and environmental policy together in a concept for sustainable economic growth in the 21st century. The latest debate about high energy prices and their impact on energy-intensive industry shows, however, that the emphasis among the three policies has shifted over the years. Some adjustments are therefore necessary in order to reduce evolving inconsistencies. This Policy Brief describes the different dimensions of the EU's industrial policy, and assesses the options available to policy-makers to increase the competitiveness of energy-intensive sectors without compromising the eco-innovation and sustainability agenda. If several key principles of the European sustainability agenda remain unchanged, strategic development is possible.

Introduction: Energy, industry and eco-innovation

In its latest Communication on energy prices and costs in Europe (COM(2014) 21), the European Commission describes an unfavourable development of energy prices in the EU, which seems to compromise the competitiveness of the continent's energy-intensive industry. In view of this assessment, what can be done in order to realign the different elements of the European eco-innovation strategy (i.e. environmental, energy and industrial policy), in a manner that suits the energy-intensive sector? How can industrial and energy policies converge, and what options do policy-makers have to ensure consistency?

The question of how energy policy can be organised to support the performance of energy-intensive sectors in Europe is a tricky one given the attempt to finalise the energy market as a level playing field and EU targets in the field of sustainability. It is therefore vital to assess the role, level and nature of public intervention in energy markets. Given the European low-carbon and sustainability objectives, one needs to ask how European energy and industrial policy could be realigned in a manner that conforms with the overarching EU eco-innovation and sustainability strategy.

Understanding energy policy as a means for industrial policy, this Policy Brief assesses whether a consistent and simultaneous adjustment to the needs of energy-intensive industries, and better support for European green growth strategies is indeed conceivable. After identifying the dimensions of industrial policy, I ask where policy-makers could intervene in order to foster industrial competitiveness in the energy-intensive segment of the European economy, and what consequences such an intervention implies for the European green growth and sustainability agenda.

European energy policy and the different dimensions of industrial policy

The incorporation of industrial policy into the Maastricht Treaty in 1992 represents the watershed between national and supranational predominance in this field. Since Maastricht, the Internal Market constitutes the core of industrial policy in Europe, binds national policies, and excludes measures that distort competition. Member States are committed to its functioning, its dynamics and the potential resulting structural changes. Yet the transfer of competence from Member States to the EU was not followed by a working concept for this complex and multi-dimensional policy field resulting in constant struggles between Member States with different national perspectives and interests. While some Member States prefer the improvement of Europe's competitiveness by means of favourable economic framework conditions, others underline the problems and challenges of individual industries and sectors. These differences have impeded the development of a coherent and integrated European approach to industrial policy. European measures therefore tend to represent a compromise be-

tween the principles of a free market approach on the one hand, and state interventionism on the other. Unanimity decision-making rules further complicated decision-making until the Treaty of Amsterdam, resulting in scattered and fragmented measures without a sound, overarching framework. In order to illustrate the difficulties for EU-level action, three different dimensions of (European) industrial policy can be identified: framework conditions, horizontal measures and sectorial measures.

a) Framework conditions

European industrial policy has its roots in the Internal Market agenda principle of the widest possible non-interference with market operation. Consequently, when it comes to a common European approach, the European Commission defined the Internal Market as "industrial policy par excellence" (COM(90) 556 final). The Internal Market rationale can therefore be considered as the foundation for any European policy on industry-related issues. Negative market integration measures such as tariff reduction, the abolishment of non-tariff trade barriers and the limitation of subsidies eventually altered the framework under which European industry operates.

With the completion of the Internal Market, its *proper functioning* became the core of European industrial policy. Further harmonisation, common regulation and mutual recognition is regarded as necessary in order to overcome and prevent ever new varieties of market failures. The EU's active competition policy, including state aid prohibition and antitrust policy, falls under the same category. Furthermore, transport and infrastructure measures have been initialised in order to overcome non-tariff trade barriers that distort the free movement of goods and services in Europe.

b) Horizontal industrial policy

Furthermore, after formal completion of the Internal Market, the EU shifted towards a new approach in industrial policy, with optimal resource allocation and the provision of a favourable business environment as its central elements. While underlining the responsibility of private firms for their own business development, the European Commission proposed developing new measures and market institutions. With the Lisbon Strategy, the horizontal approach to industry policy was systematised, resulting in a set of Communications that examined ways to adjust EU's industry to global competition (COM(2004) 274 final; COM(2005) 24 final; COM(2005) 474 final). These documents emphasise two priorities: 1) the improvement of the regulatory framework, and 2) synergies between different Community policies. While the first priority aims at the simplification and improvement of the regulations determining the environment for private enterprises, the second priority aims to maximise synergies between individual, interrelated Community policies. With regard to the latter, five main areas can be identified: 1) the coordination of European and national R&D, innovation and training policies, 2) the further optimisation of the functioning of the Internal Market, 3) putting cohesion policy at the service of industrial and structural change, 4) the promotion of sustainability, particularly sustainable production, and 5) facilitation of access to markets outside the EU.

c) Sectorial industrial policy

In the early 2000s, global competition, high unemployment rates and low growth rates caused a renewed interest in sectorial industrial policy. With China developing rapidly and the Eastern enlargement on the doorstep, fears of de-industrialisation and de-localisation were widespread. Moreover, economists pointed out the fact that horizontal measures taken by the EU had varying effects on individual sectors and industries in Europe. The European Commission therefore cautiously emphasised the need to tailor industrial policy to the needs of individual sectors/industries.

This type of industrial policy potentially works in two ways: either it supports older, *sunset* industries, preventing structural adjustment in order to avoid high unemployment rates, or it supports new, *sunrise* firms and technologies that potentially lead to structural change and modernisation. Both forms imply the specific risks of state intervention. Whereas the first approach risks preserving timeworn industries and slowing down the modernisation process for the sake of short-term benefits, the latter could channel scarce resources into sectors, industries and technologies that may never generate added value.

Eco-innovation as the new leitmotif for sectorial industrial policy

The recent emphasis on support for individual sectors of Europe's economy is rooted in the Europe 2020 Strategy (European Commission, 2010a), which promotes the development of *green* industries in order to preserve and develop Europe's world leadership in environmentally-friendly production, goods, technologies and processes. Following the financial crisis of 2008, this eco-innovation concept found its way to the core of European policy, as the European Council proposed to jumpstart the economy with investments in infrastructure, green technology, energy efficiency and innovation to accelerate the transition to a knowledge-based, low-carbon society.

The overall concept is described in greater detail in the Eco-innovation Action Plan *(COM(2011) 899 final)*, which states that growing environmental challenges and resource constraints worldwide will increase the demand for *green* technologies, products and services. According to the Commission, the EU's environmental policy is key in order to advance Europe's traditionally resource-intensive industry towards environmentally-friendly production and eco-services. European policies that aim

to decouple growth from energy use or emission-reduction commitments are therefore regarded as tools to stimulate innovation in fields that are believed to be the key markets of tomorrow's resource-constrained, low-carbon world.

Energy as a tool for industrial policy

With the Commission's latest Communication on energy prices and costs (COM(2014) 21), it is timely to return to the issue of how energy policy could better be aligned with industrial policy, while avoiding compromise of the overarching eco-innovation strategy. Along the different dimensions of industrial policy elaborated above, the following sections analyse European energy policy as a tool in support of European (energy-intensive) industry.

a) Energy as framework condition for industrial policy

There is still insufficient competition in energy markets to drive down energy costs to a level that would provide energy-intensive industries with cost-effective and predictable prices. With energy markets still largely national, and free generation capacities distributed unevenly over Europe, one important element of energy policy should be to build an EU-wide market based on physical interconnection between Member States and wider regions. New interconnectors, and more effective use of existing infrastructure is needed to increase competition and the availability of generation capacity. Additionally, the deployment of sufficient generation capacity is crucial. The construction of new generation capacities also entail risks, however. Given the challenges for energy-intensive industries to access sufficient generation capacity, it is questionable whether adequate risk sharing instruments are available.

In other words, the Internal Energy Market needs to assure investors on the recovery of their costs, guaranteeing enough investments in generation and transmission capacity and thereby providing more stable and lower prices, as well as increased security of supply for consumers. Several Member States are implementing national policies to ensure generation adequacy at all times in order to align growing power demand with increasing supply. These policies, however, involve the typical risks of any state intervention in the operation of (energy) markets, which – if poorly designed – may exceed the given risk of market failure. In view of the finalisation of the Internal Electricity Market by the end of 2014 and the fact that there is no European approach to these capacity mechanisms, the European Commission is investigating these policies.

b) Energy and the horizontal dimension of industrial policy

According to the latest Commission Communication on energy prices in Europe, high energy costs are related to a number of EU-specific market conditions. Regulatory inconsistencies should therefore be reduced. Legislation should not constitute a disincentive for investments in the energy sector. This would facilitate access to finance for required investments in generation capacity. The role of public authorities in this context would be to set a long-term vision for energy policy in order to reduce uncertainty for the regulatory environment and the energy mix choices and to avoid erratic changes. But as the EU's regulatory framework attempts to ensure that externalities are taken into account as far as possible, energy will probably remain more expensive in Europe than in other parts of the world. Yet it is global energy and resource prices that determine competitiveness. These do not take externalities into account. Further improvement is needed regarding energy and resource efficiency. Advanced energy conservation technologies are needed, and any barrier within the single market to these emerging technologies needs to be removed. Standards are considered to be the key tool to facilitate the development of lead markets.

c) Energy and sectorial industrial policy

Energy-intensive industries are not homogenous, however, and large variations exist in and between sectors. Not all plants apply the latest available technologies and therefore do not operate at their maximal potential. While there is little scope left for improvement within the boundaries of the available technologies for some enterprises, there is still potential for others. Tailor-made measures for individual industries and technologies (such as the SET-Plan and in the context of Horizon 2020) may be helpful in this regard, as a risk-avoidance culture and a lack of understanding of the opportunities of efficiency measures hamper innovation at some points, a problem which could be addressed by information programmes.

Moreover, front-runners should be rewarded through the stimulation of markets for their more sustainable ways of production. A range of instruments is conceivable, including soft schemes such as logos and labels, and fiscal measures such as incentives, subsidies, state aid and purchasing practices of industries and government agencies that use these products or influence their use. Any direct or indirect state aid should however be restricted to cases of clear market failure, where subsidies prove to be the appropriate instrument for meeting a clearly defined common interest, and where it does not distort competition or harm the environment. Specific measures and instruments for particular industries are also conceivable when it comes to direct energy prices. Current economic trends move the energy sector away from wholesale spot markets and towards fixed-price contracts. Long-term contracts for a limited number of industries and partnerships between customers and energy suppliers, e.g. risk sharing, consortiums and price risk management options, have been identified as a means to secure adequate generation capacities. Among energy-intensive industries, the demand for these long-term contracts is particularly high, but due to the volatile environment in the energy sector and concerns that such

agreements might prevent the creation of a full and successful internal market, supply is limited. Commission guidance on the compatibility of long-term supply contracts with competition law seems necessary in order to limit market distortions to an absolute minimum.

Energy and industry policy realigned: a chance for the EU's eco-innovation strategy

The realignment of European energy policy to the needs of energy-intensive industries in Europe implies several risks for the EU's eco-innovation strategy, as it threatens to undermine the effort to take into account the externalities of energy consumption. Yet if policy-makers adhere to several key principles of the European sustainability agenda, strategic development could be the possible outcome of the current debate on energy prices and the competitiveness of European industry. As discussed below, there are several options that should allow the realignment of energy policy to the needs of industry without compromising the overarching eco-innovation concept. Yet the realignment should be based on three key elements of the European sustainability concept: 1) the development of an interconnected European energy system, 2) the increase of renewables, and 3) energy/resource efficiency. These three policy objectives should remain unchanged, yet selective adjustments are possible in order to foster the competitiveness of European industry.

The increase of physical interconnection in the still fragmented European energy market has been identified as a means to increase the competitiveness of industry in Europe. Existing gaps in the physical cross-border infrastructure result in weak competition and still constitute a major impediment for cost-effective manufacturing in Europe. Policy- and decision-makers should therefore be aware of the potential efficiency gains of a pan-European approach to energy policy. Investing in physical interconnection not only increases security of supply, but also leads to stronger competition, lower prices, less misallocation of generation capacity and a more efficient equilibrium in the energy sector in general. Moreover, this approach aligns well with the European eco-innovation strategy that provides investments in energy infrastructure. Since renewables can operate best in large and flexible systems, a wide network of energy transmission infrastructure would allow for an increase in the generation capacity of renewables.

Since new generation capacities are needed for the competitive operation of energy-intensive industries, growing numbers of renewables can also be regarded as a potential key element for the realignment of energy policy to the needs of energy-intensive industries, and even more so as their deployment results in lower wholesale prices. In order to bear the risks of the corresponding investments, risk-sharing instruments such as long-term, fixed price contracts and consortiums between suppliers and customers have been discussed as a means to secure adequate generation capacities. But despite strong demand from energy-intensive industries, these have been in short supply due to concerns over their compatibility with Internal Market rules, and due to strong uncertainties in the energy sector in general. Regulatory clarification on this is necessary. Policy-makers should reduce uncertainty in the energy sector and the regulatory environment regarding supply contracts, while maintaining the European long-term aim to increase the use of renewables.

Energy- and resource-efficient technologies are considered another option. Efficiency measures could limit the energy bill despite rising prices, whereas recycling helps to retain as much energy-intensive material as possible. The regulatory framework should guarantee that the most advanced energy conservation and recycling technologies do not encounter barriers within the single market. Moreover, the use of these technologies should be actively encouraged by standards and minimum requirements on the one hand, and the development of lead markets through information, logos, and fiscal, as well as purchasing practices, on the other. These measures should, moreover, reward front-runners through the stimulation of markets for their more sustainable ways of production. Any direct or indirect state aid should however be restricted to cases of market failures that delay the adoption of energy efficient technologies.

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