SWP Comments

Stiftung Wissenschaft und Politik German Institute for International and Security Affairs

The EU's Policy to Finalise the Internal Electricity Market

An Initiative of the Commission Based on False Assumptions?Thomas Sattich

Despite several attempts at completion, the EU's internal electricity market remains fractured into weakly interconnected submarkets. With a recently published initiative to extend cross-border power lines, the European Commission is striving for better market integration and more competition. Recent changes in Germany's energy policy seem to complement this initiative, increasing the pressure for a more interconnected European energy market. They will have a deep impact on the European energy system and make a European response imperative. Yet, given the fragmentation within the European electricity market, their effect will probably be the opposite.

At its meeting on 4 February 2011, the European Council set 2014 as its target for the completion of the internal electricity market. From this date onward, electricity should be able to flow freely in Europe. A cross-border infrastructure within the EU is sine qua non for success, since electricity will otherwise be hampered by national boundaries. Yet, with a number of member states not even matching the modest target of 10 per cent minimum interconnection capacity fixed by the Barcelona European Council in 2002, cross-border electricity transmission remains physically blocked along national borders by an electricity transmission infrastructure that reflects the era of 30 years ago. As a result, only 5 per cent of electricity generated in the EU is traded across borders.

Despite the fact that the required legislation regulating infrastructure was adopted in 1996, only a few cross-border power lines have been built over the last two decades. The reason for this failure lies in decisions made at a time before the EU began promoting the interconnection of energy networks and every European country was developing its own power production and transmission system. These national choices have resulted today in 27 different energy systems with differing characteristics and market designs.

The electricity market therefore remains fractured into weakly interconnected submarkets with limited cross-border trade and competition, all of which comes as a disadvantage to consumers. Most remarkable in this respect are diverging electricity

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These imbalances between the national submarkets hamper market integration, since not every market player or member state is ready to open up markets to competition. As a result, existing cross-border power lines are underutilised in some cases, and the planning, permission and construction of new interconnections normally takes 15 years or more.

European ambitions...

To speed up market integration, the European Commission recently published a regulation proposal (COM(2011) 658 final) based on Article 172 of the Treaty on the Functioning of the European Union to push member states and other stakeholders to construct new cross-border power lines. It is based on the assumption that investments into trans-border infrastructures have been held back by unclear responsibilities and insecure returns. Consequently, the proposal sets out administrative structures to enhance the permission process, proposing one national authority to have the responsibility and competence to coordinate the permitting process. Furthermore, a newly created Connecting Europe Facility would replace and centralise existing support mechanisms, with a budget of €9.1 billion dedicated to energy.

Given the need for the €140–200 billion in investment by 2020 into high-voltage electricity transmission systems, as outlined in the proposal – of which €60–100 billion will not be delivered by the market – the European Commission is aiming for the use of financial instruments such as bonds and guarantees backed by the EU budget to raise support for particular projects on the financial market. A cost-allocation mechanism is meant to divide costs between the net-contributors and net-beneficiaries of

particular investments. These measures – administrative fine-tuning and financial instruments and guarantees – are believed to suffice to create the necessary incentives for new investments into so-called Projects of Common Interest.

... and restraints

These new interconnections would doubtless be essential for the deeper integration of electricity markets. But with regard to the historical differences between national power systems and the huge differences in price levels, it is doubtful whether finetuned administrative procedures or further financial incentives are enough to stimulate the construction of new power lines: Without further harmonisation of energy policies in Europe, the distribution of the benefits of market integration would be uneven and therefore not welcomed by a large number of actors such as incumbent market players and national governments fearing growing levels of electricity imports.

Two distinct groups are observable among energy firms: Whereas potential exporters of electricity are in favour of deeper market integration, electricity producers that might sustain losses in their market share are opposed it and are lobbying governments for market protection.

This is important because, when it comes to national energy policy, each of the 27 member states pursues its own agenda to keep power production in the hands of national champions. Even though development of the internal electricity market and the European electricity network became a shared EU competence, the Lisbon Treaty provisions leave member states much leeway for developing unilateral policies.

It seems likely that under these conditions, many member states will stick to policies that protect their national markets and prefer the extension of production capacities rather than increasing their reliance upon imports.

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Insofar as the proposed regulation does not take these factors into account, it does not meet the requirements to succeed. To be successful, a programme of deeper market integration would have to bypass the tendency towards duplication by means of the further harmonisation of diverging national policies: Without a better alignment of the policies that determine the conditions of production and transmission - with the aim to establish a level playing field for competition - interconnection programmes will continue to proceed very slowly, since economic interests counteract the opening of markets. Given the reluctance of a significant number of member states to accept deeper market integration during negotiations on the third internal energy market package, it is doubtful whether the new Commission initiative can compensate for the contradictions between national policies.

Different national priorities

The cases of Germany and Poland, two key countries in EU energy policy, can serve as an illustration: The decision to phase out nuclear energy in Germany and to invest massively in renewable energies has implications that go far beyond German borders. Major distortions in the electricity transmission system in Central Europe are one result, since energy production decreased significantly from one day to the next and made Germany the largest electricity-importing country in Europe (see tables 1 and 2, p. 4). Simultaneously, and curiously enough, the growing amount of wind energy in Germany produces a huge surplus at peak hours; the surplus energy flows uncontrolled into the neighbouring networks, causing major distortions in local energy systems. But despite the fact that a better interconnected European network could alleviate these difficulties, Germany favours an extension of its internal north-south power line network. The European approach is regarded as supplemental to these measures, rather than central.

Regardless of Poland's timeworn and ineffective energy-transmission infrastructure, the issue ranks low on the country's agenda and way behind the extension of production capacities: In this booming economy, 40 per cent of the power plants are more than 30 years old; 15 per cent are more than 50 years old. Power production can not keep pace with power demand, which is growing by 3-4 per cent a year. Massive investments into production capacities are needed if the country wants to avoid becoming a power-importing country. Relying on the country's rich domestic coal resources, Poland is therefore aiming for the construction of new power plants to keep energy production up to speed with economic growth. It is also aiming to keep the energy sector - one of the few sectors of the country's economy that is independent from foreign-investment decisions - in the hands of national companies.

Enhancing the power-transmission capabilities between the two countries would create mutual gains. An integrated network would allow Germany to secure its supply of electricity from Poland. An integrated network could also help Germany better handle and discharge its wind-energy surplus, channelling any surplus to Central European markets. Despite Poland's heavy reliance on coal and its difficulties in complying with EU climate policy, the Polish energy sector could thus contribute to Germany's transition towards post-nuclear and post-carbon power production. Poland would, for its part, be able to import Germany's cheap surplus energy for its powerhungry economy, relieving the pressure for a quick extension of its own production capabilities. EU involvement could indeed facilitate a cost-effective modernisation of the country's aging energy transmission infrastructure.

Despite the fact that both countries could profit from the extension of crossborder interconnections, it is doubtful whether they will seek deeper integration. In contrast to the aim of creating more interconnections, a recently published Polish initiative considers physically limiting imports of German wind energy into the Polish grid. It is far from clear whether such an installation would comply with existing EU law, since the technical arguments can not hide the fact that this programme contradicts the internal-market agenda.

The prospect of greater cross-border competition will also lead to fierce resistance from German power producers as well as environmental groups, which dismiss the idea of relying upon foreign nuclear or fossil energy sources. Moreover, energy-intensive industries fear higher tariffs caused by a number of large-scale projects in the energy sector.

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A window of opportunity for deeper European integration?

Underpinning the German Energiewende with a European programme to interconnect national energy markets may be unavoidable, and it may offer a chance for deeper European integration (see SWP Comments 33/2011) at a time when Germany needs electricity imports to power the continent's biggest economy. Yet politically, it is a very demanding step, requiring firm leadership on the national level and intensive negotiations for closer coordination of energy policy in Europe. With ENTSO-E (European Network of Transmission Systems Operators) and ACER (the

Table 2
Balance of Electricity Imports/Exports
April-November 2011 (in GWh)

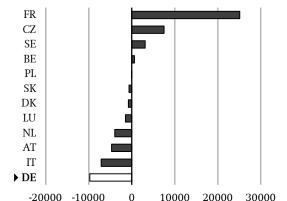
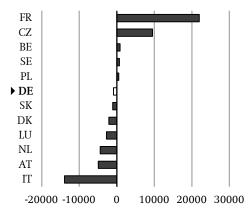


Table 1
Balance of Electricity Imports/Exports
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Agency for the Cooperation of Energy Regulators), two supranational initiators for European solutions are already in place. But as Günther Oettinger, Commissioner for Energy, put it: The European Union can only suggest measures, member states have to put them into action.

As long as member states insist on their

As long as member states insist on their rights to unilaterally determine national energy policy without conferring with their European partners, the imbalances in the European electricity market will persist and make further market-opening policies unattractive for a number of important market players. Yet without a common interest in large-scale investments into European infrastructure projects to allow further cross-border energy flows and no alignment of national energy policies, the incentives to extend interconnections will remain limited; therefore, gaps between the national submarkets will persist.

With this in mind, the recent Commission proposal is insufficient to drive market integration forward: The internal market can not be completed by the mere enforcement of more cross-border power transmission capacities. What is required is the tighter coordination of national energy policies to match market designs and price levels. Despite the potential benefits of a common energy policy, the pooling of sovereign energy resources simply remains too sensitive an issue.