Moving targets: negotiations on the EU's energy and climate policy objectives for the post-2020 period and implications for the German energy transition

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Moving Targets

Negotiations on the EU's Energy and Climate Policy Objectives for the Post-2020 Period and Implications for the German Energy Transition

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Moving Targets:
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Since 2007, energy and climate policy has occupied a prominent place on the agenda of the European Union (EU). The so-called "20-20-20 targets" negotiated during the German Council Presidency were the first step towards an integrated policy approach aimed at making the energy supply not only more competitive and secure but also more ecologically sustainable.

Because of the long investment cycles in the energy industry and the time needed for the EU to reach agreement on its position in the international climate negotiations, debate on the policy framework for the period beyond 2020 has already begun. In March 2013, the Commission presented a Green Paper launching the formal consultation process. In January 2014, it developed its ideas further, proposing targets of a 40 percent reduction in emissions and a 27 percent share of renewable energy by 2030. However, any decision on a new EU energy and climate strategy ultimately lies with the European Council, in which the 28 heads of state and government have to reach consensus.

This study considers the plausible and probable outcomes of negotiations to establish a new EU energy and climate policy framework for the post-2020 period. In addition, it explores how the likely scenario of an unambitious EU compromise would affect Germany's "Energiewende" (energy transition) policy.

If one compares the present situation with that before 2007, a shift in priorities becomes evident. Since the onset of the global economic crisis, energy price trends have substantially increased in importance. Negative experiences in past United Nations (UN) climate negotiations have led to disagreements within the EU over whether unilateral commitments should be made prior to an international agreement. Not only do many Member States now question whether the set of EU targets in place up to 2020 – reduced greenhouse gas emissions, expanded use of renewable energy, and increased energy efficiency – should be maintained in the years to come; some also appear to be falling short of their original levels of ambition. Already it seems likely that the project of long-term transformation to a low-carbon economy will face

major difficulties when it comes to practical implementation.

To date, however, this paradigm shift has received relatively little attention in the energy and climate policy debate. The central arguments used to justify the EU policy framework and the pace of its continued development are not based on apparent changes in Member State preferences, but mainly on optimized macroeconomic policy designs. Such models, which are founded on an ideal of consistent rationality, propose long-term transformation pathways for the European energy system, yet overlook the enormous influence of changing political rationalities in the EU. Transformation concepts with firm targets and timetables require a consistent long-term policy design, which is far from what exists in reality. As a result, an energy and climate discourse that is based primarily on macroeconomic models often leads to political misperceptions. The outcomes of complex intergovernmental negotiation processes often take the expert community by surprise, since second-, third-, and fourth-best policy scenarios are seldom explored and played out in any detail.

This investigation deliberately takes a different tack. We analyze the decision-making process primarily from the negotiators' perspective. In the course of our examination, we not only weigh the different factors that influence Member States' preferences but also consider procedural aspects of the negotiation process that have been largely overlooked in the energy and climate debate to date. This enables us to probe the range of potential negotiation outcomes in greater depth. Not least, this approach significantly increases the capacity of all actors and stakeholders to anticipate potential developments well in advance.

Since the negotiations between Member States are still at an early stage and will probably only be concluded after the 2015 UN Climate Conference in Paris, it is impossible to predict concrete outcomes of the process with any degree of certainty. Only a limited number of Member States have already expressed clear preferences; many are taking a "wait-and-see" approach. The proposals put forward by the Commission in January 2014 did little to change this. The European Parliament will only come into play when the heads of state and government have agreed on overarching targets, which will then make it necessary to adapt policy instruments such as emissions trading in the context of concrete legislative processes. From a German perspective, it is crucial to seriously examine the framework architecture, levels of ambition, and time horizon of the EU's key energy and climate policy targets and to explore how these would fit into the national energy transition project.

The task of this study is not only to outline the main elements of conceivable compromises in the negotiations, but also to analyze how these elements can be linked and worked out in detail. At present, it appears likely that the 28 heads of state and government will only be able to agree on a moderate emissions reduction target. Moreover, they will probably be unable to reach consensus on a renewable energy target applying to the entire energy sector. Such an outcome would have a much greater impact on the German "Energiewende" than observers in Germany currently believe: a comprehensive European climate policy and increasing integration of European electricity and gas markets would make it very difficult for Germany to decouple itself from undesirable developments at the EU level. Not only could this create pressure on Germany to modify its own renewable energy targets: If the EU reduces its climate protection ambitions and if it keeps the price of emission allowances low, this would also make it difficult if not impossible to achieve the emissions reduction targets set as part of Germany's energy transition.

If the German federal government intends to confront this challenge effectively, it will have to step up its efforts at the EU level. These will only bear fruit, however, if it first develops a strategy for designing the European dimension of Germany's "Energiewende" policy. In light of the complex constellation of factors in EU negotiations and the continued broad base of support for energy transition policy in Germany, a relatively pragmatic approach should be taken. At the center of this approach should be the effort to design European policies that preferably reinforce and support, but at least do not interfere with the German "Energiewende," in order to ensure that Germany's flagship project will not be undermined by developments at the EU level. This would imply that in EU negotiations, the German government should focus on negotiating an agreement that includes both an ambitious emissions reduction target as well as a legally binding renewables target for the electricity sector.

Structure of the negotiation and decision-making process

As an economic and political union of 28 Member States based on a common legal system, the EU is characterized more than almost any other international organization by complex institutional structures and decision-making processes that are regulated by international treaties. In order to identify the most plausible and probable outcomes of the negotiations on a new energy and climate policy for the period after 2020, it is necessary to first examine a few procedural issues, the explicit and implicit rules of the negotiation and decision-making process, and the path dependencies that characterize this policy field.

Whereas the EU treaties define the legislative process in the Union, they are less specific in setting out the procedures for strategic policy decisions. These fundamental decisions are always made by the European Council. Largely independent of the Commission's preparatory work, the European Council, comprised of the 28 heads of state and government of the EU's Member States, determines both the content and point in time of its own decisions, which are always taken by consensus.[1] In the subsequent *ordinary legislative procedure*, the European Commission has the right to initiate legislation. It presents specific proposals to the Council of the European Union, which is composed of 28 national ministers specialized in the particular policy area in question, and to the European Parliament. They vote on the proposals according to different majority voting rules that depend on the subject of the respective proposal until agreement is reached on new directives, regulations, or decisions. This two-part EU policy-making process, divided into a process of *intergovernmental* strategy decision, followed by *community-method* legislative procedures, has been standard practice in a range of EU policy fields for years. It will also be used in designing the new energy and climate policy framework for the period after 2020.[2]

The EU Commission has been doing substantial preparatory work for the approaching post-2020 negotiations since 2011. The Member States, in contrast, were long hesitant to take any position, sometimes creating the impression among members of the energy and climate policy community that the Commission was the driving force in the process. The Commission launched the debate in 2011 with the successive proposal of three roadmap papers based on macroeconomic modeling for the period up to 2050.[3] In the first of these, an overarching roadmap for moving to a low-carbon economy, the Commission explored how ambitious emissions reductions targets up to 2050 could be implemented in the energy and particularly in the transport sector and what intermediate targets could realistically be set for 2030 and 2040. The subsequent inability of the different Council formations to agree even on legally non-binding targets for the individual roadmaps was mainly attributed to the dissenting position of the Polish government, whose veto prevented the Council from adopting any conclusions.[4] The Commission's next move was somewhat more cautious. In March 2013, it published a Green Paper on Energy and Climate Policy up to 2030 that was more closely oriented toward Member States'

1 Article 15 (1) of the Treaty on European Union (TEU) reads: "The European Council shall provide the Union with the necessary impetus for its development and shall define the general political directions and priorities thereof. It shall not exercise legislative functions." Paragraph 4 explains further: "Except where the Treaties provide otherwise, decisions of the European Council shall be taken by consensus." This wording enables decisions to be made when members of the European Council are absent or abstain from voting despite the unanimity requirement; see also Article 235 (1) of the Treaty on the Functioning of the European Union (TFEU).

2 It is important to note that the European Council defines and determines the strategy but is not responsible for its implementation. As Peter Ludlow aptly observed with regard to the March 2007 Summit, where an integrated energy and climate policy was first agreed upon, "A good European Council generates work. A poor one induces lethargy." Peter Ludlow, "A View on Brussels: A Tale of Two Councils," *Eurocomment Briefing Note* 5 (March 2007) 1/2: 3.

3 European Commission, *Roadmap for moving to a competitive low-carbon economy in 2050*, COM(2011) 112 (Brussels, 8 March 2011); idem, *Energy Roadmap 2050*, COM(2011) 885 (Brussels, 15 December 2011); idem, *White Paper. Roadmap to a Single European Transport Area – Towards a competitive and resource efficient transport system*, COM(2011) 144 (Brussels, 28 March 2011).

4 See also Severin Fischer and Oliver Geden, *The EU's Energy Roadmap 2050: Targets without Governance*, SWP Comments 8/2012 (Berlin: Stiftung Wissenschaft und Politik, March 2012).

preferences, although still using the analysis underlying the roadmaps.[5] The two Directorates-General of the Commission that were responsible for this subject (DG Energy and DG Climate Action) finally drafted a concrete proposal for a policy framework after 2020 based on their own evaluation of stakeholder positions on the Green Paper and supplemented by a comprehensive macroeconomic impact assessment.

The Commission's proposal, published on January 22, 2014, refers to a domestic greenhouse gas reduction target of 40 percent and a renewable energy target of 27 percent, both for the year 2030. Even more interestingly, the Commission suggested establishing a new governance structure for the renewables target, based on national energy plans that would be evaluated by the Commission. At the same time, the target would only be legally binding on the EU level, containing no national targets and thus leaving more flexibility for the Member States.[6]

Although the January 2014 proposal serves as an initial reference point for the debate, the procedure initiated with the Commission's communication is a purely intergovernmental process.[7] The Member State governments alone will decide when a decision will be made and what questions and policy issues it will address. The negotiations will take place largely outside public sphere within the working groups of the Council and in the Member States' Permanent Representatives Committee *(Coreper)*. Points of disagreement that cannot be resolved on this level are presented for further discussion at the Council meetings of the energy and environmental ministers. Each of these two Council configurations adopts conclusions by consensus, but the two are usually not compelled to come to an agreement between themselves.[8] Because of the relative independence of the two configurations in this process, it is possible that the Environment Council would endorse more ambitious objectives at this stage than the Transport, Telecommunications, and Energy Council. Coreper has the task of resolving any differences between the two sets of conclusions, preparing the meetings of the European Council, and formulating draft Council conclusions. The final decision on the energy and climate policy framework for the post-2020 period will ultimately be made by the 28 heads of state and government in the European Council.

The form and scope of this decision is not defined in advance. The policy framework agreed upon in this process will consist mainly of general statements about EU strategic priorities and precisely quantified objectives ("headline targets") that are given particular prominence – for example, targets for reducing emissions, expanding the share of renewable energies, and increasing energy efficiency. This framework may also be accompanied by an "action plan" addressing issues that cannot be translated into quantified headline targets, such as the EU's external energy policy or the development of the internal energy market. In any case, the strategic decision is subject to the unanimity rule, which gives even small states like Malta and Cyprus the power to block a resolution with their veto. When it comes to asserting positions, however, Member States' sizes and alliances play a significant role.[9]

Only when this phase of broader strategy development has been concluded can the Commission begin the procedure of drafting detailed legislative proposals. First, the 28 heads of state and government in the European Council reach a general decision; then the European Parliament and the configuration of the Council of Ministers responsible for the respective policy area work out the details in the ordinary legislative procedure. At this point, deviations from strategic decisions are possible, but only to a very limited degree.[10] Since there is little scope for inter-

5 European Commission, *Green Paper. A 2030 Framework for Climate and Energy Policies*, COM(2013) 169 (Brussels, 27 March 2013).

6 European Commission, *A policy framework for climate and energy in the period from 2020 to 2030*, COM(2014) 15 (Brussels, 22 January 2014).

7 The Commission does not play a role in negotiations from this point in time onward, but because of its competencies for EU competition law, it is in a position to place indirect pressure on the governments of the Member States.

8 In addition, other Council configurations can take positions on a Commission proposal – for example, the EU Competitiveness Council.

9 The importance of alliances and specific groupings of Member States has increased. At the same time, alliances have become more differentiated in terms of the issues around which they coalesce; see *The Oxford Handbook of the European Union*, ed. Erik Jones, Anand Menon, and Stephen Weatherill (Oxford, 2012), in particular Part IV, "Member States (Cleavages)," 249–320.

10 This statement can be justified alone by the role of the European Council as "the EU's Ultimate Political Authority" (Jeffrey Lewis, "Council of Ministers and European Council," in *The Oxford Handbook of the European Union*, ed. Jones et al. [see note 9], 327). The fact that slight modifications are entirely possible can be seen, for example, in how the objective adopted by the European Council in 2007 of increasing the share of biofuels in the transport sector to 10 percent by 2020 has been dealt with. Because of the increasingly negative

pretation in the case of quantified headline targets[11] and since these have tended to define the course of energy and climate policy communication in the EU up to now, the headline targets are currently at the heart of the decision facing the European Council.

When the European Council produces very detailed conclusions, this leaves less room to maneuver for the actors in the subsequent legislative procedures. Conversely, "non-decision" by the Council on a particular issue or intentionally vague targets may be understood as a means of shifting the respective issue into the subsequent policy arena, with its own constellations of actors and decision-making rules.[12]

reporting on biofuels and in light of the increasing potential of electric-powered vehicles, a decision was made in 2009 in the process of enacting the Renewable Energy Directive to redefine the target as a 10 percent share of renewable energies in the transport sector.

11 A percentage value for a headline target – for example, "40 percent emissions reductions by 2030" – usually cannot be changed after the fact. More precise regulations can be formulated, however, to change the originally intended (or merely stated) level of ambition.

12 See also George Tsebelis, "Bridging Qualified Majority and Unanimity Decisionmaking in the European Union," *Journal of European Public Policy* 20, no. 8 (2013): 1083–1103. Tsebelis argues that the choice of unspecific formulations during the decision-making process can increase the likelihood of an unanimous decision.

How Member State preferences emerge

An analysis of the negotiations over future policy frameworks must consider not only the procedural aspects of the EU decision-making process, but also the preferences of the key actors: EU Member State governments. Their preferences are affected not only by fundamental national interests and perceptions of energy, climate, and economic policy issues, but also by a crucial question underlying all Member State decisions on European policy issues: What political problems need to be addressed on the EU level in the first place? An additional factor that may substantially influence Member State government behavior in the post-2020 negotiations is each state's specific past experience with an integrated European energy and climate policy.

The EU energy strategy adopted in 2007 must therefore serve as the starting point for our analysis.[13] The headline targets established in this strategy – reducing greenhouse gas emissions by 20 percent compared to 1990 levels, increasing the share of renewable energy sources in final energy consumption to 20 percent, and moving towards a 20 percent increase in energy efficiency – have largely defined the discourse to the present day. This is not only a result of the catchy "20-20-20" formula but also a reflection of the high status accorded to these targets in *Europe 2020*, the EU's economic growth strategy.[14] But what the 2007 resolutions accomplished first and foremost was to create procedural and political path dependencies that will continue to affect the course of negotiations over the post-2020 policy framework in the years to come.[15]

A changing context

Three developments that took place in the run-up to the European Council Summit of March 2007 had a decisive influence on Member States' perceptions of the problems discussed at that time. The first of these, which had a profound impact, was the increased media attention to the threat of climate change. This period of mounting public opinion reached its apex with the publication of the Fourth Assessment Report of the Intergovernmental Panel on Climate Change (IPCC) in 2007. The year before, the Stern Review commissioned by the British government had already spotlighted the economic dimension of climate change and made a significant contribution to shifting the issue of climate change into the mainstream of EU policy debate. Perceptions of the problems were also influenced, second, by concerns of new Member States in Central and Eastern Europe about the security of their oil and gas supply, particularly in relation to Russia. Third, price developments on the international energy markets created pressure for action. Although the Member States differed considerably in their interpretations of these problems, they could all find their individual perspectives reflected in the conclusions of the European Council, which were formulated in correspondingly broad terms. The new approach of an "integrated EU energy and climate policy" was intended both to address the supply security needs of the Central and Eastern European countries and to satisfy the more sustainability-oriented countries of the EU-15. But while the Energy Action Plan only contained very general statements about creating a common external energy policy and finalizing the internal energy market, it elevated the targets of reducing emissions, expanding renewable energies, and saving energy to the status of (to some extent legally binding) overarching objectives. As a result, the EU energy policy was clearly dominated by the paradigm of sustainability in the period following 2007.[16]

13 Council of the European Union, *European Council Brussels, 8/9 March 2007. Presidency Conclusions of the European Council* (Brussels, 2 March 2007), doc. 7224/1/07 REV 1: 10–23.

14 There, meeting the climate change and energy objectives stated in the 20-20-20 formula is listed as one of five EU headline targets in the new European strategy for jobs and growth; see European Council, *Conclusions of the European Council of 17 June 2010* (Brussels, 17 June 2010), doc. EUCO 13/10, 11f.

15 These path dependencies are not as strong as was the case, for example, in negotiations on the EU budget; see also the instructive analysis by Peter Becker, *Lost in Stagnation. The EU's Next Multiannual Financial Framework (2014–2020) and the Power of the Status Quo*, SWP Research Paper 14/2012 (Berlin: Stiftung Wissenschaft und Politik, August 2012).

16 See Oliver Geden and Severin Fischer, *Die Energie- und Klimapolitik der Europäischen Union. Bestandsaufnahme und Perspektiven* (Baden-Baden: Nomos, 2008), 13ff; Severin Fischer, *Auf dem Weg zur gemeinsamen Energiepolitik. Strategien, Instru-*

Only a few years have passed since the EU heads of state and government first decided to develop an integrated energy and climate policy and to set a few symbolically important medium-term targets for this project. The consensus formula on which they agreed – that European policy should strive to ensure a sustainable, competitive, and secure energy supply – is still in use up to the present, although its impact on everyday practice is negligible. The debate on a new policy framework still revolves around the three established headline targets, and thus above all around the question of whether the EU should set new targets for reducing emissions, expanding renewable energies, and increasing energy efficiency by 2030 – and if so, at what level.

The way the debate has unfolded in the EU is not merely the result of political and administrative path dependencies, which will be discussed in more detail below. It can also be explained by the conceptual framework in which EU energy policy is embedded. Since 2007, energy policy has been seen as the key component in a comprehensive, sustainability-oriented project of economic transformation that will ultimately lead to a European low-carbon economy. All of the relevant decisions of the European Council express the (legally non-binding) aspiration to achieve a 80 to 95 percent reduction in greenhouse gases by 2050, a target range that has been described since the Fourth Assessment Report of the Intergovernmental Panel on Climate Change (IPCC) as a fair contribution on the part of developed countries to achieving the 2°C target. The roadmaps for climate, energy, and transport proposed by the EU for the period up to 2050 are all based on similar ideas, but make a further assumption that is not in line with the European Council conclusions so far: that the EU should aspire to emissions reductions of at least 80 percent *in any case*, no matter how other developed countries choose to behave.[17] For a transformation project that spans such a long period of time and defines the specific amount of emissions reductions so far in advance, it appears advisable to flesh out key details early, and in ten-year stages – not just as a series of isolated decisions but within a coherent policy framework.

In the last few years, only Poland has aggressively criticized this approach, most notably when it blocked Council conclusions on the Commission's 2050 roadmaps. But not even Poland questions the necessity of a European and global emissions reduction policy. Nor does it disagree with the prime importance of the energy sector in such a policy.[18] The Polish criticism – which many other Central and Eastern European Member States now share – is directed at the level of unilateral emissions reduction efforts by the EU and the planned speed of transformation to a low-carbon economy. On these points, Poland has advocated that the economic situation of individual Member States should be taken more strongly into consideration. The Visegrád Group, consisting of Poland, the Czech Republic, Slovakia, and Hungary, place high priority on topics such as energy prices and the use of domestic fossil fuel sources. Yet this has not led them to call for supplementary headline targets in the areas of competitiveness or supply security[19] – even though both of these aspects moved to a much more prominent position on the official EU agenda following the extraordinary European Council meeting of May 2013.[20] Instead, the Visegrád Group's efforts have been aimed at weakening the paradigm of an ecologically sustainable transformation.

From a conceptual point of view, the Central and Eastern European Member States have confined themselves to proposing additional conditions for the implementation of the European transformation model. In political practice, however, this has led them to be cautious in all decisions on medium-term

mente und Politikgestaltung in der Europäischen Union (Baden-Baden: Nomos, 2011), 88ff.

17 Fischer and Geden, *Energy Roadmap 2050* (see note 4).

18 Energy-related emissions are responsible for approximately 80 percent of total greenhouse gas emissions in the EU. The Commission proposes in its roadmaps that the energy sector's emissions be reduced by an above-average 85 percent by 2050, and electricity sector emissions by as much as approximately 95 percent.

19 Many of the targets proposed in the discussion so far are quantifiable (e.g., state of completion on cross-border infrastructure projects, energy price differences from other developed and developing countries, or the level of import dependency). However, they are not suited to becoming legally binding targets, but at most indicative targets, since they are difficult if not impossible to translate into instruments that could be used to precisely regulate European energy markets. Even if the targets were merely indicative, the Commission would not be able to escape proposing legal acts for their implementation, which would result in extremely wide-ranging state interventions into energy markets. Even if that were possible in conformity with European law, the resulting regulations would scarcely be capable of gaining majority support in the Council and Parliament.

20 European Council, *Conclusions – 22 May 2013* (Brussels, 23 May 2013), doc. EUCO 75/1/13 REV 1, 1–5; see also Peter Ludlow, "Energy and Taxation – The European Council of 22 May," *Eurocomment Preliminary Observation* 3/2013.

EU targets. These states have received tacit support from the crisis-hit countries of southern Europe, whose political interests at the moment are focused more on economic recovery than on ecological transformation. Sooner or later, this will have an impact on the EU's transformation concept. The EU's aim of rapid and efficient decarbonization expressed in the "80 to 95 percent by 2050" formula can only be achieved if the energy and climate policy framework up to 2030 fulfills criteria of minimal coherence. This would include at least a relatively ambitious emission reduction target.

Path dependencies and past experiences with EU instruments

The question of what conclusions the Member States are drawing from their previous experiences with an integrated energy and climate policy is closely linked to that of how the other EU partners perceive and evaluate the implementation of the three headline targets first adopted in 2007.[21] In contrast to the period of debate leading up to the 2007 decision, when Member States had little experience in these areas, now they have practical insights from actually working with the targets and instruments, and these experiences are influencing their preferences significantly.

Emissions reductions

Because production levels have declined since the beginning of the economic crisis in the EU, the goal of a 20 percent reduction in greenhouse gas emissions by 2020 (compared to 1990) has come within reach much more quickly than was expected in 2007. At the end of 2012, emissions had already been reduced by 18 percent. There is little doubt that the EU will maintain an emissions reduction target after 2020. But there is likely to be significant controversy over how high that target should be. In particular, Member States may have negative associations with a conditional approach making the EU's emissions reduction commitment dependent on the measures other developed and developing countries agree to undertake. The attempts during 2010 and 2011 to change the EU's target to 30 percent without an international agreement, which were spearheaded by several Nordic and Western European Member States led by the UK, ended in failure. They were blocked by Poland with the tacit support of many other Central and Eastern European Member States. The fact that the EU has been unable to raise its emissions reduction target for 2020 even though it has already nearly reached the current target shows that, due to the unanimity requirement, targets set by the European Council are very difficult to adjust at a later stage – even in cases where the situation has changed dramatically.

A similar problem is evident in the EU Emissions Trading System (ETS), which was long considered the crowning achievement of EU climate policy and which, since 2013, has been a fully Europeanized instrument that covers around half of all European greenhouse gas emissions.[22] The over-allocation of emissions allowances, partly due to the recession, and the resulting decline in the price of emissions certificates has almost completely undermined any governance effect of the ETS. A profound structural reform cannot be expected in the current third trading period (2013–2020) due to strong opposition in the Council of Ministers.[23] Many of the Member States that are more ambitious on climate policy issues believe that early agreement on a rigorous emissions reduction target for 2030 could have a stabilizing effect on prices. Although the less ambitious Central and Eastern European states are skeptical about raising the level of ambitions significantly, they still consider emissions trading to be an efficient regulatory instrument that should be kept in place in the future.

21 See Severin Fischer and Oliver Geden, *Updating the EU's Energy and Climate Policy: New Targets for the Post-2020 Period* (Berlin: Friedrich Ebert Foundation, May 2013), 3ff. For comprehensive monitoring of the individual Member States' progress toward the 2020 targets, see European Environment Agency, *Trends and Projections in Europe 2013. Tracking Progress towards Europe's Climate and Energy Targets until 2020* (Copenhagen: EEA, 2013).

22 Up to 2020, emissions reductions in sectors not included in the ETS (e.g., road transport, agriculture, buildings, services) will be subject to diverse national targets that take into account the different economic capabilities of the Member States.

23 Therefore, the long-awaited Commission proposal for structural ETS reform aims to establish a market stability reserve only at the beginning of the fourth trading period in 2021, see: European Commission, *Proposal for a Decision of the European Parliament and of the Council concerning the establishment and operation of a market stability reserve for the Union greenhouse gas emission trading scheme and amending Directive 2003/87/EC,* COM(2014) 20 (Brussels, 22 January 2014).

Renewable energy

In contrast to the widely harmonized emission reduction policies, most measures to support the use of renewable energy sources are still being developed at the national level. While the EU has set an overall target of increasing the share of renewable energies in gross final energy consumption by 20 percent, this EU average target for 2020 is divided into widely varying national targets that range from 10 percent (Malta) to 49 percent (Sweden).[24] Aside from the Member State obligation to inform the Commission regularly about national policies to support the achievement of the respective national target, there is no genuinely European instrument currently being used to promote the use of renewable energy. In contrast to the Emissions Trading Directive, which contains regulations even for the post-2020 period in the version that has been in place since 2009, expressing the EU's intention to treat climate protection as a long-term task, the Renewable Energy Directive only contains targets reaching up to 2020. The question of whether there should be a binding target for the use of energy from renewable sources after 2020 remains completely open. For many Member States, past experiences with policies designed to expand the use of renewables up to 2020 play a key role in their current positions on this question. Although the Commission's last progress report concludes that the 20 percent target could be achieved by simply maintaining the growth rates of the past few years,[25] national trajectories are drifting apart. While Germany, Austria, and the Scandinavian and Baltic Member States will, in all likelihood, achieve their national targets, a number of other Member States will have great difficulties in doing so. Throughout much of Southern and Central-Eastern Europe, the support systems that used to exist either have been severely cut back due to shifting domestic policy priorities or have fallen victim to consolidation pressures in the wake of the economic and financial crisis. If Member States in these regions should show that they are falling short of their national targets in the years to come, potentially triggering formal infringement proceedings, there will be even less incentive to agree on a binding renewable energy target for the period after 2020.

Energy efficiency

From the outset, the weakest of the three headline targets formulated in March 2007 was the energy efficiency target. In contrast to the other two 20 percent targets, the goal of a 20 percent improvement in energy efficiency by 2020 was not regarded as a legally binding objective by the European Council, but merely as an indicative target. This also meant a significant lack of clarity in what the target actually implied, because increased energy efficiency was defined as relative energy savings. What the heads of state and government agreed on in 2007 was a 20 percent reduction in *estimated energy consumption by 2020* – although it took the Commission until 2010 to specify what estimates this decision should be based on. Although EU energy consumption is showing a slight downward trend, this is mainly due to the recession and only in small part to efficiency improvements. The 20 percent target will probably not be reached by 2020. In recent years, most Member States, with the exception of Denmark, have shown very little interest in efficiency improvements or energy saving measures that are binding under European law – as evidenced in the lengthy negotiations over a revised Energy Efficiency Directive. The desire of Member States for a new headline target at the EU level is also limited, especially since this would trigger increased regulatory activity on the part of the Commission, even if the target were once again solely indicative. Although it would be easier for the Central and Eastern European Member States to achieve energy efficiency improvements compared with the technologically more advanced Nordic and Western European countries, this does not mean that they want this kind of headline target on the EU level. A definition of efficiency that requires a reduction in absolute energy consumption is now widely considered to be growth inhibiting. While all this does not mean that energy efficiency will not have a place in future EU energy policy, most Member States do share an interest in maintaining the greatest possible degree of flexibility for independent action in this area.

How the Member State governments evaluate the successes and failures in implementing the energy strategy of 2007 will play an important role in the post-2020 negotiations. This background of experience

24 The target for Germany is 18 percent and therefore below the average.

25 European Commission, *Renewable energy progress report,* COM(2013) 175 (Brussels, 27 March 2013). As of 2011, the share of renewable energy in final energy consumption was 13 percent.

significantly distinguishes the recently initiated process from its predecessor, which led to the decisions of the European Council in March 2007. Today, the Member States have much more than a theoretical conception of what role quantified headline targets play in the everyday functioning of an integrated EU energy and climate policy and how rather vaguely worded objectives actually function in practice. The "completion of the internal energy market," for instance, is periodically announced by the European Council to take place in a certain year (most recently 2014), but such a complex and unspecific target cannot, from a regulatory standpoint, be implemented with just a handful of measures. Even more important are the learning processes that Member States have gone through in using the EU energy and climate policy instruments. These include the effects of emissions trading on the electricity market, commitments to expanding the use of renewable energy sources that emerge from the Renewable Energy Directive, and the demands for implementation that the Commission itself has derived from a strictly indicative EU energy efficiency target.

While the Central and Eastern European states were still relatively inexperienced in dealing with EU instruments and their consequences in 2007, when the targets for 2020 were negotiated, they are now articulating their interests and positions much more clearly and precisely – particularly since most of these governments have developed their own national energy strategies in the meantime. Today, if these Member States make proposals at the EU level at all, their aim is to ensure the compatibility of EU plans with their own national plans – rather than the other way around. Likewise, these states are less interested in impact assessments that apply to Europe as a whole. Instead, they usually call for detailed national impact assessments. The danger this raises for the negotiations on post-2020 targets is that the process could become overburdened with purely national issues that could delay the decision-making process, making it difficult for the European Council to reach consensus.

Key elements of a negotiation compromise

If we look at the process of creating an EU policy framework for the post-2020 period from a Member State perspective, the negotiators will have their eye on three main dimensions.[26] The discussion will focus on the basic *target architecture*, that is, on the question of what sort of quantified objectives the EU still wants to set. No less important will be the specific *design of the headline targets,* for example, the level of ambitions and the internal structure of the selected targets. The *time horizon* could also become an important subject of negotiations, although the year 2030 appears so far to be uncontroversial. What the central elements of a compromise will ultimately look like depends not least on the *basic structure of the negotiation outcome*, that is, on the question of whether the European Council will be able to agree once again on a comprehensive package or if the 28 heads of state and government will choose instead to make a series of individual decisions (see figure, p. 16).

The most important context factor that will affect the process of intra-European decision making is the roadmap for UN climate negotiations. The decisive date here is the climate summit set to take place in Paris in late 2015 – the 21st Conference of the Parties (COP 21) to the United Nations Framework Convention on Climate Change (UNFCCC). At that summit, according to the schedule of negotiations agreed upon in Durban in 2011, a comprehensive global climate treaty is to be reached among all of the developed and developing countries whose level of ambitions corresponds to the already internationally agreed 2°C target. Since the EU does not regard its emissions reduction policy as an end in itself but rather as a means of addressing a global problem – and since not all Member States support the strategy of Europe playing a leadership role in international environmental policy – the Europeans will first have to decide how EU decisions should relate to the UN process. Should unilateral European reduction obligations be set before COP 21 to create a positive impetus for international negotiations? Or should Europeans wait and see what the outcomes of COP 21 are, and until then only formulate conditional targets that would only become binding if all major emitters actually sign an ambitious UN agreement? Or would it be better to combine the two approaches again, as was done in 2007, two years before the failed COP 15 in Copenhagen?

The longer it takes for the European Council to come to a decision, the less ambitious the European emissions reduction target will probably turn out to be. Many Member States would stress that increasing the level of ambitions significantly within a very short period of time is not economically viable. After the disappointing outcome of the UN climate conference in Warsaw (COP 19), the 2015 Paris summit cannot be expected to produce an agreement that could be described as a success by the criteria formulated in Durban in 2011. This has already become evident in how the EU Member States are trying to manage expectations for Paris. The states that normally want to go slow on climate policy, rather than the more ambitious states, are now the ones emphasizing the importance of a comprehensive and ambitious UN Climate Agreement. While this may at first seem paradoxical, the underlying thinking is that if the outcomes of Paris 2015 are considered a failure by the European public, this will increase support throughout Europe for the Visegrád Group's view that the EU should curb its leadership ambitions for economic reasons.

Target architecture

Up to now, the target architectures discussed by the Member States have been derived almost exclusively from the pool of "headline targets" that has existed up to now.

By far the broadest consensus exists around extending the current emissions reduction target. In the case of the renewable energy target, aside from a few proponents and a significant number of indifferent Member States, there are also a fairly considerable number of outright opponents. Among the three targets, support for a new energy efficiency target is undoubtedly

26 These dimensions should be understood primarily as analytical categories. In the negotiations, these are not treated as separate and neatly delineated areas.

Outline
Key elements of a negotiation compromise

Target architecture	**Option 1** *Emissions reduction ("technology-neutral climate target")*	**Option 2** *Emissions reduction + expansion of renewable energy ("two-target model")*	**Option 3** *Emissions reduction + expansion of renewable energy + increase in efficiency ("three-target model")*
Design of the "headline targets"	▸ Specific target level for emissions reduction ▸ "Domestic" or with offsets? ▸ Unilateral and/or conditional? ▸ Distribution over ETS and non-ETS sectors	All elements of Option 1 plus ▸ Specific target level for expansion of renewable energy ▸ National targets or EU-wide target? ▸ Share of renewables in total energy consumption or individual target for the electricity sector?	All elements of Options 1 + 2 plus ▸ Specific target level for increasing efficiency ▸ Reduction in energy consumption or improvement in energy intensity? ▸ Legally binding or indicative?
Time horizon	2025 or 2030?		
Basic structure of the negotiation outcome	Comprehensive package or series of individual decisions?		

the weakest.[27] From a present-day perspective, the debate on the energy and climate policy framework in the EU up to 2030 is likely to center on the following three target architecture options.

Option 1: A single "technology-neutral" emissions reduction target

Of the Member States that took a position in the debate on post-2020 targets early on, a group initially led by the UK and Poland[28] has argued in favor of a single headline target limiting greenhouse gas emissions. Citing the idea of "technology neutrality," a central concept of this approach, its proponents argue that the EU should maintain its goal of reducing emissions. At the same time, however, they believe that an emissions reduction policy cannot specify which technologies will be most effective in achieving this goal in the decades to come. It must be noted that only a few of the proponents of this option have distinguished themselves with ambitious climate policy efforts. Politically, this approach is aimed primarily against giving renewables a prominent place in EU energy policy. From this point of view, expanding the use of renewable energy is just one of many possible means of reducing emissions, alongside increasing the use of nuclear energy, switching from coal to gas in electricity production, increasing energy efficiency, and using carbon capture and storage (CCS) in fossil-fuel-based power generation. If the EU should decide to take this path, it would allow individual Member States to forego significant increases in the use of renewables and thus to avoid radical restructuring of their energy systems. In any case, many Member States see a potential conflict here with EU primary law.[29]

27 Our analysis is based not only on official position papers but also on unofficial documents and discussions with representatives of various Member States, individual stakeholders, as well as the Commission.

28 This group now also includes Romania, Slovakia, the Czech Republic, and Hungary, and with some qualifications Finland, Lithuania, and Spain. In March 2014, the UK changed its original position and declared that it can support an EU-level renewables target, as long as it does not contain binding national targets.

29 Article 194 (2) TFEU emphasizes the right of a Member State to "to determine the conditions for exploiting its energy resources, its choice between different energy sources and the general structure of its energy supply." In addition to this, without continuing the legal framework on renewable energy, the legal admissibility of maintaining national support schemes to promote the use of renewables could be

Using the argument that the most cost-effective method of emissions reduction would prevail within such a policy framework, the "technology-neutral" approach also serves the symbolic function of again bringing the aspect of competitiveness in EU energy and climate policy to the fore.[30]

Option 2: Two binding targets: emissions reduction and renewable energy

Up to now, only a few Member States have pushed for two new binding targets: one for the reduction of greenhouse gas emissions and one for renewable energy.[31] Proponents of this target architecture admit that the relationship between the two target categories would have to be clarified in order to better address negative interdependencies.[32] To be sure, in confronting proponents of the "technology-neutral" approach (Option 1), they have been unable to convincingly explain why expanding renewables should be subordinate to the objective of climate protection yet preferable to other energy sources. For this reason, proponents of a two-target architecture now tend to explain this approach more based on the relative independence of a specific renewables policy. In particular, they emphasize the advantages beyond emissions reductions that an expansion of renewable energy would have: increased supply security, safer energy production, higher domestic value added, decreased air pollution.[33]

Option 3: Maintaining the current three targets

Retaining the current target architecture would undoubtedly be the easiest approach to justify. However, the idea that the EU chose the best possible approach in 2007 and should maintain this comprehensive course of action largely unchanged in the future has lost currency over the past several years. So far, only four Member States have come out in favor of a three-target option: Denmark, Germany, Portugal, and Austria.[34] An approach calling for renewed agreement on three headline targets does not, however, rely solely on the public appeal of proposing the most comprehensive approach possible. Parallel negotiations in three target sectors would also open up a wide range of possibilities for differentiated intra-European burden-sharing. This in turn would increase the chances of overcoming impasses in the negotiations and of accelerating the decision-making process among the 28 EU heads of state and government.[35]

Design of the headline targets

From a present-day perspective, it is highly probable that the negotiations on the basic target architecture will focus on options 1 and 2, and thus on the core question of whether or not there should be a binding renewable energy target. But this decision does not answer how the selected headline targets should be formulated in detail. This applies not only to the target levels but also to the question of target structures. New headline targets for emissions reduction, expansion of renewable energy, or energy efficiency do not have to be constructed in the same way as their predecessors from 2007. By freeing themselves of this limitation, Member States would gain additional room to maneuver, which would likely facilitate compromise.[36]

called into question by the EU Competition Commissioner. The Commission's proposal to reformulate state aid rules in the environmental and energy field already suggests the possibility of this, see European Commission, *State aid: Commission consults on draft rules for state support in energy and environmental field*, IP/13/1282 (Brussels, 18 December 2013).

30 Correspondingly, this approach is favored by most of the industry associations.

31 This group includes Belgium, France, Ireland, Germany, Austria, Portugal, and Denmark, although the last four are also in favor of adopting an energy efficiency target, that is, retaining the three targets currently in place (Option 3). Member States that consider a renewable energy target to be possible or acceptable under some – not clearly defined – conditions include Estonia, Finland, Italy, UK, Lithuania, and Slovenia.

32 These Member States are referring to the debate on the current crisis of the ETS. Critics attribute the system's oversupply of emissions allowances to the rapid development of wind and solar energy, even though economic factors and allowances from international climate protection projects have probably had a significantly greater impact.

33 Proponents of a two-target architecture usually do not explain in detail why a separate energy efficiency target will not be needed in the future.

34 This position finds support among the most important environmental non-governmental organizations.

35 See Robert Koelemeijer et al., *EU Policy Options for Climate and Energy beyond 2020* (The Hague: PBL Netherlands Environmental Assessment Agency, 2013), 36f.

36 The possibilities for variation presented in the following could already be included in the European Council's decision

Emissions reduction target

In the discussion on a European climate target for 2030, the number 40 will likely be a central figure. The EU Commission first suggested a 40 percent reduction in European emissions as a milestone for the year 2030 in its Low-Carbon Roadmap published in 2011. Thus, it comes as little surprise that the Commission proposed this target again in January 2014. Since the publication of the roadmap, a 40 percent reduction in greenhouse gas emissions has been considered the minimum that would have to be achieved in the EU in order to reach the lower bound of emissions reductions envisioned by the European Council – and thus a litmus test for the credibility of EU climate policy.[37] For this reason, the 40 percent target carries great symbolic weight. The result is that Member States with higher climate policy ambitions that have already suggested a specific target for 2030 – including the UK, Germany, Portugal, Denmark, Sweden, Spain, and France – have all chosen 40 percent. Yet countries in the Visegrád Group that tend to resist ambitious EU climate policy efforts have avoided naming a target for 2030 – even those that vigorously support the idea of a singular emissions reduction target.

The question of what quantified target Europeans want to set their sights on for 2030 is directly linked to the still unresolved question of what relationship internal EU decisions should have to climate negotiations on the UN level. There is likely to be general agreement among Member States that the EU needs to state what commitments it is willing to make in the coming UN framework well in advance of COP 21. What remains unresolved, however, is what concrete form this statement should take. On the one hand, the EU could agree on a *unilateral* reduction target for the period after 2020 that it would adhere to no matter what outcome the international negotiations produce. On the other hand, its decision on a reduction target could be *conditional*, that is, dependent on the success of the UN negotiations (however that success might be defined). Whereas the more ambitious Member States in climate policy lean toward agreeing on a unilateral target at an early stage in order to push UN negotiations further and provide European businesses a certain degree of planning security, those countries that tend to block an ambitious EU climate policy, such as Poland, Slovakia, Hungary, the Czech Republic, and Romania, argue for strict conditionality.[38] In their view, the EU should only commit to further emissions reductions if other major emitters agree to do the same. Whether such a scenario will play out, and what impact it would have on the EU, would become clear in 2016 at the earliest – and if the UN negotiation process stalls, perhaps significantly later. If an intra-European compromise should emerge around an early unilateral target combined with a conditional offer to the international community (as proposed by the UK), then the Visegrád Group would try to stop the EU from quantifying its conditional offer. This would prevent a higher target from taking on a life of its own in the European climate debate even if the UN climate summit failed: This was what occurred after COP 15 in Copenhagen, when Poland came under great pressure to accept an increase in the EU emissions reduction target to 30 percent by 2020.

It should be kept in mind that no matter what emissions reduction target the EU ultimately decides on, the figure itself will not a reliable indicator of the actual level of ambition in Europe. The EU Commission's Low-Carbon Roadmap and its proposal of January 2014 articulate a very ambitious interpretation of emissions reduction targets. Credits from international climate protection projects are not taken into account; emissions reductions must be achieved entirely within the EU. Correspondingly, the Commission's proposed target for 2030 is "40 percent domestic." Up to now, all the Member States that are demanding a 40 percent emissions reduction have embraced the more ambitious version,[39] whereas the European Council is likely to prefer a weaker one, allowing the use of international credits. Yet as past experience

on the basic target architecture, e.g., in the form of an accompanying action plan. Some specific details could still be addressed during the subsequent legislative procedures, with the effect of remaining largely invisible to the broader public.

37 See Brigitte Knopf et al., "Beyond 2020 – Strategies and costs for transforming the European energy system," in *Climate Change Economics* 4 (2013) Suppl. 1.

38 Today, unlike in 2007, the use of a conditional target, whereby the EU promises to raise its own targets after a positive UN decision is reached, is no longer generally seen as a means of encouraging other developed countries and emerging economies to accept more ambitious targets in UN negotiations. The main argument for a conditional target now is that an overly ambitious European leadership role in climate policy would place an undue burden on European industry and should therefore be avoided.

39 According to the British concept, however, allowances from international climate projects could also be credited toward the EU's reduction obligation at a rate of 5 to 10 percentage points under a (conditional) target of a 50 percent emissions reduction by 2030.

shows that this process will probably go largely unnoticed by the broader public, a weakening of this target would not have negative effects on the EU's climate policy communication.[40]

Renewable energy target

If a new target were also set for the expansion of renewable energy, it would not be as symbolically loaded as the emissions reduction target. Not only would it have no connection to the UN negotiation process; the share of renewables in the European energy mix – in contrast to emissions levels – is also not central to the idea of a transformation to a low-carbon economy. In addition, there are no IPCC targets for 2050 in this field that could be interpreted in Europe as a guideline. All this leaves fairly substantial room for negotiation.

Not all the Member States that are explicitly in favor of a binding renewable energy target have already proposed concrete figures. Many stick to the Commission's January 2014 formula of "at least 27 percent." The fact that not even Denmark or Germany – which have called for a 30 percent share of renewables by 2030 – go beyond the value stated in the Commission's Energy Roadmap 2050 shows that no major policy advances are likely in this area. The first priority of renewable energy proponents seems to be the fundamental governance question of whether an EU renewable energy target would be interpreted as an average, as it has been up to now, and then subsequently broken down into differentiated Member State targets, or whether the renewable targets should be defined for Europe as a whole – as proposed by the Commission in January 2014 – leaving it largely to market forces to determine where exactly in Europe these efforts will ultimately be carried out or only defining broad regional technology-specific capacity budgets.[41]

It is rather unlikely that the European Council will adopt a new renewable energy target in the same form as the current one – that is, a target that is both legally binding and that applies to all energy consumption sectors. On the one hand, this is due to the constellation of parties in the negotiations, which include a relatively large number of Member States that argue, under the banner of "technology neutrality," for disposing with the renewable energy target altogether. On the other hand, it is due to the obvious problems of individual Member States in reaching their national renewables targets for 2020 and to the entire EU's difficulties in increasing the share of renewables in the transport sector in an ecologically sustainable manner.[42]

If those urging the expansion of renewable energy want the European Council to set a headline target in this area as well, they will have to win over the more skeptical Member States with a target formula involving only low additional obligations. There are two basic ways of doing this:[43] The renewable energy proponents could (a) attempt to shoulder the burden of expanding renewable energy largely alone after 2020. Their own national targets would be raised again significantly, while the targets of the "technology-neutral" Member States would be increased minimally at most. The overall EU target resulting from this would probably remain significantly below 30 percent. The renewable energy proponents could, however, (b) step back from addressing total energy consumption and focus instead on setting at least one prominent sectoral target for the expansion of renewables. The electricity sector would lend itself well to this given its central importance for the internal energy market,

40 A more flexible interpretation of the emissions reduction target would probably not be formulated explicitly in a European Council decision, but would only be introduced in the subsequent legislative procedures, e.g., in the revised version of the Emissions Trading Directive or in the decision on national reduction targets for non-ETS sectors. Also the distribution of post-2020 reduction efforts between these two instruments would probably only be determined in the legislative procedures. In any case, the higher the share of non-ETS sectors addressed by differentiated national targets, the more bargaining chips will be available for negotiation over a distribution of burdens among Member States. An additional means of subsequently making the emissions reduction target for 2030 less restrictive would be to not declare all excess emissions allowances from the phase up to 2020 invalid but to instead allow their use in the coming decade.

41 See Severin Fischer and Kirsten Westphal, *Erneuerbare Energien im Stromsektor: Gestaltungsoptionen in der EU*, SWP-Studie 27/2012 (Berlin: Stiftung Wissenschaft und Politik, December 2012), 31ff.

42 See Severin Fischer and Sybille Röhrkasten, *EU-Verkehrssektor: Ende der Biokraftstoffpolitik*, SWP-Aktuell 61/2013 (Berlin: Stiftung Wissenschaft und Politik, October 2013).

43 The frequently chosen approach in the EU of softening legally binding targets by defining them as merely indicative would probably not be feasible in the case of a renewable energy target. The decision for a binding 20 percent renewables target for 2020 was a reaction to the failure of previously existing indicative targets for the share of renewables in the electricity and in the transport sector.

with the ongoing integration of national electricity markets and the high regulatory density of this sector. The share of renewables in the electricity sector is almost 10 percentage points higher than the average in total energy consumption (as of 2011: 21.7 versus 13.0 percent). Since there is no separate electricity sector target for 2020, a target could be set for 2030 that would appear relatively high (for example, 35 percent) but that would only require a de facto moderate increase in level of ambitions for Europe as a whole over the coming decade.[44]

Efficiency target

If the European Council does set another headline target in the area of energy efficiency, its aim will undoubtedly not be to achieve an absolute reduction in primary energy consumption. This approach, which was taken in 2007, is now perceived as "anti-growth" by some Member States, especially those with a comparatively low level of prosperity. In addition, the previously used indicator has been proven inaccurate since absolute energy consumption may decline in recession phases even if energy use does not become any more efficient. An obvious solution would be to switch to a relative efficiency target, based for instance on the internationally established indicator *energy intensity*, which can be used to measure the relation between energy consumption and gross domestic product. What concrete level of improvement the EU could achieve by 2030 has not been discussed at all in regard to this indicator. It is therefore unlikely that the European Council will set a new target for improving energy efficiency. And if the Council does make such a decision, it is fairly certain that its target will not be legally binding.

Time horizon

The debate over the EU's new energy and climate targets has revolved up to now around a single date: 2030. Not only the Green Paper but also the specific Commission proposals from January 2014 have used this as their target date. The Member States too have developed their positions around the year 2030. Yet a date of 2030 is by no means compulsory – the time horizon lies entirely at the discretion of the European Council. Furthermore, depending on the dynamics of the negotiations, it is conceivable that an initial agreement could be reached on "post-2020 targets" only up to 2025. Raising this as an option would make particular sense for those Member States whose preferences leave them relatively isolated in the negotiations. The logic behind this is: the shorter the time horizon of the policy framework, the sooner a new round of negotiations would take place. Arguments could be made that this would increase flexibility, which would be desirable in allowing the EU to respond better to economic and political uncertainties. The evolution of EU energy and climate policy since 2007 shows that in this policy field – which already tends to polarize – it is virtually impossible to readjust previously decided headline targets, even if the surrounding conditions have changed fundamentally. The unanimity rule in the European Council is diametrically opposed to any such readjustments.

Yet one could also imagine a scenario in which all those involved have an interest in a target date of 2025. If Poland and its closest allies succeed in blocking substantial decisions prior to COP 21, and if the UN climate summit in 2015 does not produce any clear outcomes, causing international negotiations to drag on indefinitely, this will place substantial pressure on the heads of state and government. This will be intensified by the need to provide a sound basis for investment planning – which will only be possible when the legislative procedures to design the instruments have been concluded and the individual sectors and businesses can see what new regulations will be affecting them. The combination of a stalemate in the European Council and ongoing uncertainty about the further course of UN climate negotiations could make a limited time extension of the existing target architecture appear to be the only politically viable alternative. The heads of state and government would, in this scenario, set moderately increased new targets for emissions reduction, renewable energy, and efficiency for 2025 with the possible addition of a burden-sharing component to address Poland's demands. The fundamental decision about the future of European energy and climate policy would therefore be postponed temporarily.

44 Even a weak target would reflect an emphasis on renewables compared to conventional energy sources. This would help the proponents of renewable energy if a political dispute arose between Member States and the Commission over the internal market compatibility of national systems for promoting the use of renewables.

Basic structure of the negotiation outcome

As the discussion above has illustrated, a great deal still remains open in the process of coming to a decision on post-2020 targets. A concrete proposal of the Commission has only been available since January 2014. This will affect the further debate but will in no way determine the decision. Many Member States have only taken positions on select issues up to now. Moreover, stable negotiation coalitions have not yet begun to form, with the exception of the Visegrád Group, which now also confers closely with Romania and Bulgaria (V4+2) over joint positions on questions of energy and climate policy.

It is still too early to predict what specific outcomes the negotiations will have and how these will affect the structure of the EU's energy supply. This is partly because – and this, at least, can already be predicted with some certainty – the policy model of a comprehensive transformation of the European energy system, carefully planned for decades to come, will reach its limits in the second implementation phase between 2021 and 2030. The closer we get to 2050 and the more ambitious the EU targets turn out to be, the more pressure Member State governments will be under to give the project of long-term economic transformation top priority, despite whatever problems they might currently be facing. If the heads of state and government followed the same "master plan logic" that underlies not only the Commission's roadmaps but also numerous macroeconomic studies on the future of the European energy system, then it would go without saying that domestic enterprises should be provided at least a basic level of investment and planning security. It would also be indisputable that decisions on the EU's new target architecture and (unilateral) headline targets for 2030 should be reached significantly before 2015. Then, if the UN climate negotiations did yield an agreement, EU targets could be raised further. Yet such an enormous degree of comprehensive rationality cannot be found either in EU energy and climate policy or in any other policy field on the EU level. The expectation of consistently rational behavior can only be maintained if one simultaneously ignores the dominant political and procedural rationalities operating within the EU.

Up to this point, in order to present the most comprehensible analysis possible, we have followed the logic that has dominated the debate on the future of EU energy and climate policy so far. According to this logic, all the different targets and measures are interconnected; every step has to be seen within its broader overall context; isolated individual decisions should therefore be avoided. Only in the context of this kind of *holistic* interpretation does it make sense to think in terms of comprehensive target architectures.

It may be, however, that a more sequential approach will gain traction – perhaps already in the post-2020 negotiations. An explicit decision on a new target architecture might have to be postponed again and again while the heads of state and government are occupying themselves with urgent individual decisions. It may be that the EU will not resolve its fundamental disagreement over the number and hierarchy of headline targets, even though it will have to agree on a climate target in the context of COP 21. Thus, despite all the mandates and proposals, the question of whether the EU will set new headline targets for renewable energy or energy efficiency may remain undecided for years to come. If this should occur, the issue of a complex post-2020 target architecture would remain on the policy agenda, but a single-target focus on emissions reduction (Option 1) would probably prevail.[45]

What we are seeing here is the emergence of a *process-centered* governance approach that could set the tone for EU energy and climate policy in the phase to come. The wide divergence of positions within the EU and the close linkage between European decision-making processes and international climate negotiations creates a degree of complexity that can no longer be practically managed using a "comprehensive" approach. This is likely to push the actors towards an increasingly pragmatic approach aimed at reaching the decisions that need to be made in individual policy areas but without doing so years ahead of time and without any precise schedules or action plans. In short: Energy and climate policy would gradually become "normalized."

45 In the environmental policy discourse, there is a strong tendency to constantly demand rapid improvements in targets, agreements, and instruments – with the implication that these improvements are really achievable in the near future (for example, based on new negotiation schedules or formalized review processes) – even if their chances of actually being adopted are low. Proponents of Options 2 and 3 are therefore likely to show an interest in postponing an explicit decision against renewable or efficiency targets for as long as possible.

Paradigm change in Europe

The decision-making process on the post-2020 EU policy framework is taking place under completely different premises than the one that ended in March 2007 with the European Council's decisions on the first phase of an integrated EU energy and climate policy. These new premises are evident, first, in the economic circumstances. The ongoing European debt and financial crisis has fundamentally changed the political priorities of many Member States. It has also been the top priority issue among European leaders for a number of years, while conflicts and difficulties in other policy areas have taken a back seat. In addition, a degree of disillusionment has set in. The hope often expressed in 2007 that energy and climate could become the positive themes defining the future of European integration dissipated rather quickly. In the UN climate negotiation process, almost no substantial progress has been made since 2008. Furthermore, global emissions are continually rising. Within the EU, the divisions have deepened further in recent years, especially between the climate policy laggards in Central and Eastern Europe and the climate policy proponents in Northern and Western Europe.[46]

Without exception, all these actors are showing a heightened awareness that many developments in EU energy and climate policy are not taking place as desired, or at least not as predicted. On the one hand, there have been disappointments with European projects, instruments, and market developments – for example, the failure of the Nabucco gas pipeline, the crisis of the EU emissions trading scheme, and the emerging failure of the CCS strategy. On the other hand, there have been a series of positive developments in global energy markets that were not anticipated by EU energy policy – for example, the shale gas boom and the cost reductions in photovoltaics. Both have induced a degree of caution in European decision makers when it comes to setting legally binding targets 12 to 15 years in advance. Trust in the validity of macroeconomic scenarios and impact assessments has declined palpably, and faith in the accuracy of expert prognoses has also suffered. The complexities of the problems at hand – and the numerous contingencies[47] that cannot be resolved even with additional information – have led the different groups of actors to operate increasingly within their own isolated realities. As a result, it has become almost impossible for policy makers to agree on and then actually implement wide-ranging decisions on EU energy and climate policy. At present, this policy field is defined not by the often-invoked approach of *evidence-based policy making*, but rather by a mode of *policy-based evidence making*. Scientific studies have become virtually incapable of influencing Member States to make informed changes in their positions. Instead, these studies serve primarily as means of legitimating already fixed policy positions.

Sooner or later, the European Council will have to decide on its energy and climate headline targets for the post-2020 period. From a present-day perspective, not only is it likely that the outcome will be relatively modest, far below the level of ambitions stated in the Commission's roadmaps; there is also much evidence to suggest that a more fundamental paradigm change is underway, not unlike the shifts that have taken place numerous times before in EU energy and climate policy.[48] On trial here is not only the primacy of

46 The southern European Member States, which in 2007 were still largely among the strong supporters of climate policy, have been significantly more cautious about climate policy questions since the onset of the economic and financial crisis. Yet with the exception of Cyprus, they have not yet joined the ranks of states attempting to stall any action on climate policy.

47 See, for a general overview, Horst Rittel and Melvin Webber, "Dilemmas in a General Theory of Planning," *Policy Sciences* 4, no. 2 (1973): 155–69; Nikolaos Zahariadis, "Ambiguity and Choice in European Public Policy," *Journal of European Public Policy* 15, no. 4 (2008): 514–30; Friedbert W. Rüb, "Politisches Entscheiden. Ein prozess-analytischer Versuch," in *Pluralismus – Strategien – Entscheidungen*, ed. Nils C. Bandelow and Simon Hegelich (Wiesbaden: VS Verlag für Sozialwissenschaften, 2011), 17–45.

48 See David Buchan, *Why Europe's Energy and Climate Policies Are Coming Apart*, SP 28 (Oxford: Oxford Institute for Energy Studies, July 2013); *Paradigms in Public Policy. Theory and Practice of Paradigm Shifts in the EU*, ed. Marcus Carson, Tom Burns, and Dolores Calvo (Frankfurt a. M.: Peter Lang, 2009); Tim Rayner and Andrew Jordan, "The European Union: The Polycentric Climate Policy Leader?," *Wiley Interdisciplinary Reviews: Climate Change* 4, no. 2 (2013): 75–90.

a sustainability-oriented approach but also the vision of an energy policy that is becoming progressively more coherent and more European in scope. If such a paradigm change takes place, what would be lost is nothing less than the program of energy system transformation in its current form – not only the target of an 80 to 95 percent reduction in greenhouse gas emissions by 2050, but also the underlying model of governance.

Fundamental shifts

Whereas sustainability was overtly prioritized in the EU energy strategy of 2007, its importance has been declining in recent years, even if this change has not always been immediately apparent. Given that all essential legislative procedures to implement the March 2007 European Council conclusions were concluded in 2009, there has been little pressure to make new decisions since 2010. What has emerged as the main mode of conflict resolution between Member States is now intentional non-decision, whether in the debate on raising the EU climate target for 2020 or on a fundamental reform of emissions trading. This shift has been partially obscured by the communication policy of the EU Commission. Since the roadmaps published over the course of 2011 were based primarily on the sustainability paradigm, and since no Member State with the exception of Poland had expressed open opposition, it still appeared that EU energy and climate policy was guided by the spirit of the 2007 resolutions. Only with the European Council of May 2013, whose engagement with energy policy was confined to a discussion of energy price trends, did it finally become evident to the broader public that the issue of competitiveness had taken center stage in EU energy and climate policy. The issue of electricity and gas price trends, especially relative to the USA, is one of the few topics that is high on the energy policy agenda of all of the Member States and one that is capable of mobilizing broader coalitions than is usually the case in this rather polarized policy field.

The second fundamental shift in European energy and climate policy can be seen in the relation of the Member States to the EU. The energy sector has undeniably become more Europeanized in the last several years, in part as a result of the Third Internal Energy Market Package. The increased European integration has been limited, however, to electricity and gas *markets*, whereas an integration of Member States' energy *policies* has failed for the most part to materialize. To this day, Member States insist on their sovereign right, guaranteed under Article 194 TFEU, to decide on their own national energy mix. Most Member States oppose European initiatives that could lead to undesired changes in national energy supply structures: they want first and foremost to define and pursue their own priorities. Where these stand in direct contradiction to the mainstream of European energy and climate policy, the Member States generally tend to play for time. During the last few years, many Member States have been attempting to prevent (harmonization of energy taxation), stall (emissions trading reform), and weaken (CO_2 emissions standards for passenger cars) undesired European regulatory initiatives. This practice can also be found in other fields of EU policy – it is certainly not unique to EU energy and climate policy per se. Yet if one considers the project of energy system transformation, a fundamental contradiction becomes apparent. If the EU is indeed to become a *low-carbon economy* by the year 2050, emitting 80 to 95 percent less greenhouse gases than in 1990, this will demand a continually increasing convergence of national energy policies, which in turn will progressively limit the Member States' sovereign powers. It is illusory to expect that such ambitious EU targets can be achieved through simple addition of 28 national energy policies. Since this contradiction is directly related to questions of the distribution of competences in EU primary law, the Member States and the Commission have decided to maintain the illusion for the time being.

Scientific vs. political justifications for low-carbon transformation

The two emerging trends sketched out above – a shift in priorities from ecological sustainability to competitiveness and a tendency to avoid European policies that could impinge on national sovereignty – do not give reason to expect that the project of a complete low-carbon transformation of European economies (and thus also of the energy system) by 2050 will be pursued seriously.[49] Up to now, it has largely escaped notice that even the European Council's long-term

49 Even under these premises, it is not entirely impossible that the energy system transformation will take place by 2050 – but this will only happen if rapid technological progress is capable of compensating for the lack of political will.

target contains two conditional provisions that were pushed through by Poland. In its decision, the European Council stated that it supports the EU's goal "in the context of necessary reductions according to the IPCC by developed countries as a group, to reduce emissions by 80 to 95% by 2050 compared to 1990 levels."[50] This decision is now generally understood in the sense of a conditional target that would only become politically binding for Europeans if the "group of developed countries" really does act as a group, that is, if all of the developed countries[51] agree to a corresponding level of ambitions. This is already questionable, and the likely failure to fulfill this condition at the 2015 UN Climate Summit in Paris will strongly influence internal EU negotiations over post-2020 targets. In addition, the fact that the European Council's 2009 target formula relates specifically to the third part of the IPCC's Fourth Assessment Report from 2007 has been completely ignored in the political debate. Thus, each new IPCC Assessment Report could also necessitate – or at least legitimize – a new decision by the European Council. The target formulated by the European Council in 2009 offers two possible points of departure for such a decision.

Because of the constantly increasing per capita emissions in most of the so-called "developing countries," which in many cases already exceed the levels of some EU Member States, it is conceivable that future IPCC reports[52] will do away with the somewhat anachronistic dichotomy of the world into developed and developing countries.[53] It is possible that the IPCC itself will no longer assign all 28 EU Member States to the same group but rather introduce a further distinction between the "old" developed countries and the post-socialist countries – which would probably further complicate the intra-European negotiation process.[54] Yet even if the IPCC were to maintain the traditional distinction in international climate policy between "developed" and "developing" countries, it is highly improbable that progress in climate science will leave a reduction target of 80 to 95 percent for 2050 in place – as formulated in 2007 for the traditional industrialized countries – for decades to come.[55]

In the course of negotiations over the post-2020 targets for European energy and climate policy, the EU – and as a result also the German government – will doubtless no longer be able to avoid providing political justification for their emissions reduction targets. The heads of state and government will have to answer a question they have strenuously avoided up to now: What does it mean that the sluggish UN process has been unable to provide any convincing argument for drastic emissions reductions in Europe? Does the EU want to simply give up on the project of a low-carbon economy? If not, what climate policies should be used to manage its implementation? Should the target for 2050 be maintained, while imposing significant carbon taxes on imports from countries without ambitious climate policies? Should the *targets-and-timetables* approach be modified by making the existing emissions reduction paths less ambitious? Or should the EU restrict itself to saying that the decarbonization of European economies is its ultimate goal and one the Member States should work toward continuously – but without stating what progress has to be achieved well in advance of 2030 or 2050?[56]

50 Council of the European Union, *Brussels European Council 29/30 October 2009. Presidency Conclusions*, doc. 15265/1/09 REV 1, 3. In February 2011, the European Council reaffirmed this decision in slightly different words.

51 The corresponding passage in the Fourth Assessment Report of the IPCC refers specifically to the "Annex I Parties" to the UN Framework Convention on Climate Change of 1992. These consist essentially of the then-members of the OECD and the Eastern bloc countries. In the UN climate policy context, developing countries and emerging economies are subsumed under the term "Non-Annex I Parties," see Sujata Gupta et al., "Policies, Instruments and Co-operative Arrangements," in *Climate Change 2007: Mitigation – Contribution of Working Group III to the Fourth Assessment Report of the IPCC*, ed. Bert Metz et al. (Cambridge/New York: IPCC, 2007), 776.

52 The contribution of Working Group III to the Fifth Assessment Report of the IPCC (*Mitigation of Climate Change*) will be published in April 2014.

53 This division – because of its embedding in the UN Framework Convention on Climate Change – is nevertheless likely to remain influential in international climate policy.

54 More recent approaches from mitigation research assume the existence of five to ten regional groups on the global level whose emissions reduction potentials can be evaluated in a differentiated fashion. Western Europe is usually counted as part of the top group "OECD1990" and the Central and Eastern European countries among the "Economies in Transition" (EIT); see Niklas Höhne, Michel den Elzen, and Donovan Escalante, "Regional GHG Reduction Targets Based on Effort Sharing: A Comparison of Studies," *Climate Policy* 14, no. 1 (2014): 122–47.

55 Depending on the assumptions made, this could result either in raising the reduction targets considered necessary for the developed countries or in lowering these targets.

56 See Oliver Geden, "The End of Climate Policy as We Knew it," in *Expect the Unexpected*, ed. Volker Perthes and Barbara Lippert, SWP Research Paper 1/2012 (Berlin: Stiftung Wissenschaft und Politik, January 2012), 19–22.

Experiences with European energy and climate policy since 2007 show that in contrast to what environmentalists, think-tanks, energy companies, policy makers, and macroeconomic modelers are calling for or even assuming, the EU does not consistently make decisions or pass measures that correspond to its own political program of low-carbon energy system transformation. It goes without saying that the call for a coherent policy framework is perfectly legitimate. However, one cannot seriously assume that such a policy framework will be put into practice. Moreover, to base expectations for future political practice on the, empirically speaking, shaky assumption of a policy design based on comprehensive rationality is not only questionable from an analytical standpoint; it also completely misses the mark in terms of providing useful policy advice and orientation.

Inconsistencies between policy discourse, decisions, and implementation are a defining feature of everyday political life: they allow governments to address the widely disparate and conflicting concerns of diverse stakeholder groups and constituencies.[57] This may help to explain why a rigid transformation concept that is based on the assumption of consistent political action over the course of four decades is extraordinarily susceptible to failure. The realization that the EU energy and climate policy negotiations run the risk of ending in a stalemate over the post-2020 policy framework should therefore provide an impetus to consider new models of governance for an energy and climate policy with a long-term orientation – a third way between *targets and timetables* and *muddling through*. This is imperative not only for the EU, but also for Germany, whose long-term energy transition project aims at achieving a similar level of decarbonization (80 to 95 percent by 2050) with a more limited set of technological options.

57 See Nils Brunsson, *The Consequences of Decision-Making* (Oxford: Oxford University Press, 2007); idem, *The Organization of Hypocrisy. Talk, Decisions and Actions in Organizations* (Copenhagen: Copenhagen Business School Press, 2006).

Effects on Germany's "Energiewende" policy

The course and outcomes of the negotiations over the future of EU energy and climate policy in Brussels will also affect Germany's energy transition ("Energiewende") policy. First, the German government will have to develop a negotiation strategy that promises success on the EU level but that can also be presented convincingly to the German public. Second, it will have to deal with the contradictions that are likely to arise between the EU and the German policy framework. The more the EU slows down the pace of transformation, and assuming that German ambitions remain high in the core energy transition areas – phasing out nuclear power, reducing greenhouse gases, and expanding renewable energy,[58] the greater these contradictions will be. At present, it appears highly likely that the 28 heads of state and government of the EU Member States will set only a moderate emissions reduction target and will not agree on a new renewables target for the entire energy sector – regardless of the EU Commission's proposals presented in January 2014 for EU energy and climate policy up to 2030. Such a decision by the European Council would create pressure to *modify some German "Energiewende" targets*. If the key players in German energy and climate policy want to confront this challenge effectively, it will not suffice for them to campaign more vigorously on the EU level. In order to achieve success in the EU arena, the German government will first have to clarify which of the *possible strategies for designing the European dimension of Germany's "Energiewende" policy* it wants to pursue in the future. Recommendations for how the German government should proceed in the framework of the post-2020 negotiations can only be formulated consistently in relation to the individual strategic options.[59]

A glance at recent history shows that German energy and climate policy – contrary to all the pro-European rhetoric since the 2011 decision to phase out nuclear power – has actually undergone an inward turn. This is hardly surprising given the scale of the tasks at hand and the controversy surrounding numerous details of the national energy transition. In functional terms, the imminent reform of the German electricity market should be approached from a European perspective by involving at least the neighboring states and the EU Commission in this process. Yet negotiations over these reforms, which are already complicated in the German multi-level system, would become even more complex if other European actors were brought in. This would make the process significantly more difficult for the German government to manage, both in terms of the content of the reform and the process of communication.

The strategy of largely ignoring the European dimension of the "Energiewende" is not just pragmatic. It is also based on the German self-perception of being a leader in energy and climate policy, whose good example the other Europeans will eventually follow – either by making ambitious decisions on the EU level or by imitating at some later point in time. Past German administrations were able to employ this notion with almost no political risk. They occasionally had to fend off accusations that Germany is too ambitious in its environmental policy compared to other Europeans and that its go-it-alone path in energy policy is too costly, thus endangering the competitiveness of German industry. Yet these debates have had a limited effect so far and have not led, at the current

58 The "Energiewende" decisions of 2011 contained numerous quantified individual targets, but did not create any explicit hierarchy among them. A systematization proposed by the expert commission that was formed to monitor the energy transition names two headline targets: reducing greenhouse gas emissions (40 percent by 2020, 80–95 percent by 2050) and phasing out nuclear power by 2022 (see Expertenkommission zum Monitoring-Prozess "Energie der Zukunft," *Stellungnahme zum ersten Monitoring-Bericht der Bundesregierung für das Berichtsjahr 2011* [Berlin et al., December 2012], 5ff). If one analyzes the German energy transition discourse in detail, it becomes evident that expanding the use of energy from renewable sources (with a focus on the electricity sector) must be considered one of the core areas of the German "Energiewende". The range stated in the coalition agreement between CDU, CSU, and SPD for renewables in the electricity sector (40–45 percent in 2025, 55–60 percent in 2035) hardly diverge from the plan for expanding the use of renewable energies set out in the original energy concept.

59 See Ralf Tils, *Politische Strategieanalyse. Konzeptionelle Grundlagen und Anwendung in der Umwelt- und Nachhaltigkeitspolitik* (Wiesbaden: VS Verlag für Sozialwissenschaften, 2005); Joachim Raschke and Ralf Tils, *Politische Strategie. Eine Grundlegung* (Wiesbaden: VS Verlag für Sozialwissenschaften, 2007).

level of ambitions, to widespread questioning of Germany's leadership role. Furthermore, consensus remains broad in Germany on phasing out nuclear power, reducing emissions, and expanding the use of renewable energy.[60] Although changes have begun to occur on the EU level – largely unnoticed by the German public – they will affect Germany's ability to play a successful leadership role within the EU.

The most prominent example of such a change is certainly the EU Commission's state aid investigation into some features of the German Renewable Energy Sources Act (EEG), which could endanger the existence of the support system of the EU's largest Member State in the long run.[61] This would not only have a negative effect on national plans for the expansion of renewables; it would also raise the importance of a decision in favor of a new target for renewable energy in the context of the EU post-2020 negotiations. In climate policy, Germany is now heavily dependent on developments in Europe as a whole. If regulatory systems are conceptualized transnationally, as has been the case with EU emissions trading since 2013, then a low level of ambition for Europe as a whole will have a direct effect on the feasibility of a higher German level of ambition.[62] In the worst case, this would make it considerably more difficult for Germany to achieve its own climate targets.

Pressure to modify "Energiewende" targets

At present, it appears plausible that the EU target architecture will be reduced to a single emissions reduction target after 2020 with a low level of ambition – even below the "40 percent domestic" level proposed by the Commission. If this happens, Germany's key "Energiewende" targets will be affected in very different ways. While such a decision on a European target would have no negative consequences for the German roadmap to phase out the use of nuclear energy, it might impede Germany's expanded use of renewable energy. And it is highly likely to have a negative impact on emissions reduction policies.

Even if Europe does not set a new renewable energy target in the same form as the current one, Germany could still set its own target of achieving 30 percent renewable energy in total energy consumption by 2030 (as of 2011: 12.1 percent). However, if this were perceived by the German public as "going it alone" within Europe, the project of ambitious energy system transformation would meet with substantially increased political opposition. Furthermore, public discussion of the overall costs is likely to flare up again and again in the years to come. Such discussions might be sparked by European issues, such as the fact that the Benelux countries and France, which have close ties to the German electricity market, profit from the significant decline in electricity wholesale prices across the entire market area thanks to the wind and photovoltaic installations subsidized by German energy consumers. The effort required to maintain network security will probably increase significantly if neighboring countries like Poland and the Czech Republic, which have decided against an energy strategy based on renewables, design their electricity networks in such a way that they are able to block the transit from northern to southern Germany during high-wind periods. The expansion of electricity networks within Germany, which has barely begun, will probably encounter major acceptance problems in many regions. And not least of all, a significant increase in the share of renewables in energy consumption sectors like heat and transport, which up to now have been relatively unaffected by reforms, will put the German population's willingness to play a leadership role to the test. In all these cases, the argument could be made that Germany would be better off partially adjusting to a European approach and slowing down the domestic expansion of renewable energies. Against this backdrop, it seems sensible to encourage efforts to further expand the use of renewable energy in the electricity sector, both within Germany and also within the EU. This would not only be in the interest of German industrial policy, but could also make it easier to carry out necessary dis-

60 See Bundesverband der Energie- und Wasserwirtschaft, *BDEW-Energiemonitor 2014: Das Meinungsbild der Bevölkerung. Kommentierte Zusammenfassung* (Berlin: BDEW, February 2014).

61 Although Competition Commissioner Almunia only questioned Germany's exemptions for energy-intensive industries and the "green electricity privilege" (provided for in the EEG Act), this could lead to an overall assessment of the German renewables support system under the new guidelines on environmental and energy state aid for 2014-2020, see European Commission, *State aid: Commission opens in-depth inquiry into support for energy-intensive companies benefitting from a reduced renewables surcharge*, IP/13/1283 (Brussels, 18 December 2013); idem, *State aid: draft rules* (see note 29).

62 Oliver Geden, *Klimaziele im Mehrebenensystem. Konfliktpotentiale bei der Implementierung der "Kyoto-II"-Verpflichtungen in EU-Recht*, SWP-Arbeitspapier FG1, 2013/04 (Berlin: Stiftung Wissenschaft und Politik, August 2013).

cussions with neighboring countries about the design of a cross-border electricity market.

What is much more vulnerable to negative European influences is Germany's emissions reduction policy. In the scenario assumed here, there would still be a basic consensus between Germany and the EU on the role of targets, but the significantly differing levels of ambition would pose a problem. No one can prevent Germany from maintaining its national emissions reduction target of 55 percent by 2030 (as of 2012: 24.7 percent). Yet it is difficult to predict whether Germany would face pressure to adjust its 2030 objectives simply because its own emissions reduction target turns out to be far more ambitious than the EU target even at the end of the next decade. It is also impossible to say with any certainty whether the measures needed to achieve the 55 percent target will come under criticism if significant progress is not made in international climate negotiations.[63]

Far more critical than the potential problem of increasing doubts about Germany's future climate policy leadership role is the issue of the deteriorating conditions that such a role would require. A relatively unambitious EU climate target would have a negative impact on the ETS allowance price and would thus exacerbate an already very strong tendency. Since barely half of German greenhouse gas emissions are regulated directly through EU emissions trading, the persistently low allowance price has made it significantly more difficult for Germany to maintain its original targeted emissions reduction path, which was calculated on the basis of much higher CO_2 prices. As a consequence, the CO_2-intensive energy sources lignite and hard coal profit in particular from price erosion in the ETS and place a growing burden on Germany's overall emissions balance. Germany will only be able to achieve a direct and short-term increase in allowance prices through initiatives at the EU level – whether by raising the European climate target for 2020 or by reforming emissions trading. In the chosen post-2020 scenario, however, such initiatives would have relatively little chance of success. The German government would be left with only one option to meet its own emissions reduction goals: the use of additional national measures. First, it would have to introduce further regulatory instruments for the energy sector, such as technical emissions performance standards for power plants or a minimum price for fossil fuels for installations covered by the ETS (carbon floor price).[64] Second, it would finally be forced to take additional emissions reduction measures in the sectors of transport, agriculture, and buildings, which until now have been largely spared from widely unpopular regulations.[65]

Strategies for designing the European dimension of Germany's "Energiewende" policy

It is beyond dispute that Germany's energy transition has a profoundly European dimension, given the strong regulatory framework established by the EU and the increasingly close ties with neighboring countries' electricity and gas markets. Yet there has not been much reflection on the implications of this situation in the German energy policy discussion to date.[66] The EU level is usually only brought into this discussion selectively – in some cases to argue for accelerating the energy transition, in others to argue for slowing it down.

There are essentially three possible ideal-type strategies for designing the European dimension of Germany's "Energiewende" policy that differ not only in their principal direction but also in their respective chances of realization: *establishing a European "Energiewende," adjusting the German course,* or *minimizing EU interference*. Depending on which direction the German government wants to take in the future, different approaches for the post-2020 negotiations emerge.[67]

63 Germany's target formulae for medium- to long-term emissions reductions, in contrast to the EU's, do not contain any conditional elements that would require similar efforts by other developed countries and emerging economies.

64 Such measures could improve the German emission balance, but this would not lead to a reduction in greenhouse gas emissions from an overall European perspective since the emissions allowances saved in Germany would be used in other EU countries, see Stefano Clò, Susan Battles, and Pietro Zoppoli, "Policy Options to Improve the Effectiveness of the EU Emissions Trading System: A Multi-criteria Analysis," *Energy Policy* 57 (2013): 477–90.

65 See Oliver Geden, *Die Implementierung der "Kyoto-II"-Verpflichtungen in EU-Recht. Enger werdende Spielräume für eine klimapolitische Vorreiterrolle Deutschlands*, SWP-Aktuell 69/2013 (Berlin: Stiftung Wissenschaft und Politik, November 2013).

66 See Severin Fischer and Oliver Geden, *Europeanising the German Energy Transition*, SWP Comments 33/2011 (Berlin: Stiftung Wissenschaft und Politik, November 2011); Oliver Geden and Severin Fischer, "Die 'Energiewende' wird europäisch," *Berliner Republik* 1 (2014): 11–13.

67 These would have to be expanded in the years to come to include political initiatives on the EU level, which, however, cannot be explored in detail in this study.

Establishing a European "Energiewende"

The aim of bringing the entire EU onto a single policy path that corresponds to the basic tenets of the German energy transition is undoubtedly the most demanding of the strategies sketched out here. A transformation project that is to achieve a unilateral 80 to 95 percent reduction in greenhouse gas emissions by 2050 mainly through increased use of renewable energy, improved energy efficiency, and without the use of nuclear power will probably not be capable of gaining majority support – leaving aside Denmark, Austria, and other smaller Member States. However, explicit agreement on a European phase-out of nuclear energy would not even be necessary in the framework of the post-2020 negotiations. In view of the extremely difficult market environment for the construction of new nuclear power plants, which in any case would currently be impossible without substantial subsidies, it would be enough not to significantly improve the framework conditions for nuclear energy.[68] Thus, in the post-2020 negotiations, Germany would have to work to prevent a decision in favor of just a single "technology-neutral" climate objective and urge that the three targets agreed on in 2007 be maintained. In addition, it would have to ensure that a European Council decision is made as soon as possible and that it contains ambitious targets for emissions reductions, expansion of renewable energy, and the increase of energy efficiency. However, this carries the risk that Germany would be perceived in European negotiations as inflexible and unwilling to compromise, which could cause the positions of other Member States, not least of all the Visegrád Group, to become more entrenched. This would result in an increased risk that the final decision by the European Council will be postponed indefinitely.

Adjusting the German course

From a diametrically opposed perspective, processes at the EU level could be used to justify corrections of the German energy transition course. Theoretically, this approach could be used as a way to deliberately curb the pace of transformation in Germany, for instance, by playing a more passive role in post-2020 negotiations or intentionally escalating conflicts with the Commission over the state aid procedures. A much more realistic variant of this approach, however, would be for Germany to forgo an active leadership role in negotiations and not make any effort to prevent the aforementioned developments on the EU level. After all, if the German government were to accept a weak compromise, this acquiescence could be used to relativize Germany's probable failure to meet some "Energiewende" targets and to call the need for German leadership in climate protection into question. If the post-2020 negotiations in the EU result, for instance, in agreement on a relatively unambitious emissions reduction target, the functioning of the ETS will make it impossible to meet the climate targets contained in the German "Energiewende" policy. Responsibility for this failure would be directed at the EU Member States that tend to slow down any EU action on climate policy – especially the Visegrád countries led by Poland.

Minimizing EU interference

In light of the complex constellation of interests in EU negotiations, the paradigm shift underway in energy and climate policy, and the continued broad consensus on the transformation of the German energy system, a relatively pragmatic strategy appears to be the most advisable. This approach would center on the attempt to design EU policies that ideally reinforce and support, but at least do not interfere with the German "Energiewende" in order to prevent EU developments from undermining this flagship project as much as possible. In the EU post-2020 negotiations, the German government would have to concentrate on reaching agreement on a comprehensive package that contains both an ambitious emissions reduction target and a legally binding target for renewable energy. To achieve this, Germany would have to be willing, in the case of conflict, to slow down or even block European negotiations. If the need for further national emissions reduction efforts is to be minimized, the new EU emissions target would have to be formulated in such a way that it directly affects allowance prices in the ETS, for example, by strictly limiting emissions allowances from international climate protection projects. With regard to the renewable energy

68 Germany would have to give its explicit support for the in-depth investigation initiated by the Commission into the British use of a feed-in tariff to subsidize the construction of a new nuclear power plant *(Hinkley Point C)*. It would also be in the German interest if the Commission decided to include restrictions for nuclear power in its new state aid guidelines for environment and energy.

target, it will probably be very difficult to reach an agreement in the European Council that covers all energy consumption sectors. From a German point of view, this is not strictly necessary, since the transport and heating sectors are only marginally relevant to the common European energy market and only play a minor role in the German "Energiewende" discourse. A European energy policy supporting the German energy transition would have to strongly promote the use of renewables in the electricity sector across the EU. Germany will only be able to achieve its national deployment path efficiently through integration into the European electricity network and in conformity with European state aid rules. The German government will therefore have to campaign vigorously for a renewable energy target in the electricity sector.

Abbreviations

CCS	Carbon Capture and Storage
CDU	Christian Democratic Union
CO_2	Carbon dioxide
COP	Conference of the Parties
Coreper	Committee of Permanent Representatives
CSU	Christian Social Union
DG	Directorate-General (of the European Commission)
EEG	German Renewable Energy Sources Act
ETS	Emissions Trading System
EU	European Union
IPCC	Intergovernmental Panel on Climate Change
SPD	Social Democratic Party of Germany
TEU	Treaty on European Union
TFEU	Treaty on the Functioning of the European Union
UN	United Nations
UNFCCC	United Nations Framework Convention on Climate Change

Further Reading

Oliver Geden
Modifying the 2°C Target. Climate Policy Objectives in the Contested Terrain of Scientific Policy Advice, Political Preferences, and Rising Emissions
SWP Research Paper 5/2013, June 2013, 30 Pages

Kirsten Westphal
Unconventional Oil and Gas – Global Consequences
SWP Comments 12/2013, March 2013, 8 Pages

Peter Becker
Lost in Stagnation. The EU's Next Multiannual Financial Framework (2014–2020) and the Power of the Status Quo
SWP Research Paper 14/2012, October 2012, 22 Pages

Severin Fischer and Oliver Geden
The EU's Energy Roadmap 2050: Targets without Governance
SWP Comments 8/2012, March 2012, 4 Pages