



Long-term planning for climate policy: drawing lessons from national and EU experiences

Summary of June 7th Expert Workshop at IDDRI

POLICY CONTEXT & FOCUS OF THE WORKSHOP

The issue of “planning” as a tool for governing climate and energy policy is currently on the agenda in Europe. Long term National Energy and Climate Plans (NECPs) are being proposed as a centrepiece of the new governance mechanism to ensure that the objectives of the Energy Union are achieved. The Paris Climate Agreement has also called on parties to “formulate and communicate long-term low greenhouse gas emission development strategies”. It is therefore an appropriate time to examine:

- What role(s) long term planning can and should play in climate and energy policy?
- What processes, institutions and conditions are conducive to effective plan-making?
- How plan-making can contribute to creating stakeholder consensus around specific climate and energy strategies and policies?
- How plans will fit in broader national, European and international climate and energy governance frameworks?

A handful of EU Member States have either developed or begun to develop national long-term decarbonisation strategies and scenarios. This workshop thus invited experts from some of these Member States—namely, France, UK, Italy, and Germany—to share lessons from these experiences. Insights on selected sub-topics relating to the development of the new National Energy and Climate Plans—including current stakeholder engagement, interactions with electricity sector planning and changes to markets and operations, and approaches to monitoring implementation—were also presented. The main conclusions of the workshop are presented below, with a focus on lessons for good plan-making practice.

THE BASIC ROLES OF NATIONAL PLANNING IN CLIMATE AND ENERGY GOVERNANCE

Climate policy “planning” refers to a combination of long term scenario analysis, targets and strategies to achieve those targets. Examples from national experiences in the EU suggest that, when done effectively, the climate policy planning process can serve two main roles in climate and energy governance.

Firstly, plans and plan-making can serve a technical role in the policy process. In this role, plans serve as essentially technical information tools for defining targets, defining scenarios, and identifying strategic choices, their implications and risks, in order to guide policy making towards objectives. In

doing so, plans also serve a benchmark against which policy and progress can be evaluated and adjusted over time in order to stay on track towards the target.

Secondly, plan-making (and scenario-building more generally) can also serve as a tool that guides a process of building stakeholder consensus. In this role, the planning *process* itself can help to resolve potentially significant conflicts between stakeholders with different visions of “the solution”. It can thus help to increase the credibility and acceptance of the final “plan” and thus stakeholder support for the strategy that is recommended to and implemented by governments.

Much attention is given to the technical requirement for plan-making. While lip-service is often paid to the importance of stakeholder “consultation” or “transparency”, concrete examples of where plan-making has been most effective at being translated into ambitious and effective policy suggest that both of these processes are vital and closely interrelated in effective plan-making.

THE TECHNICAL PROCESS OF PLAN-MAKING: WHAT MAKES FOR EFFECTIVE PLANNING?

National experiences suggest some valuable insights about how the approach to planning can determine whether plan-making fulfils each of these roles effectively. On the technical role of plan making, lessons from national experiences tended suggest a number of important elements for effective planning:

First and foremost, effective planning requires clear objectives. In the case of climate policy planning, existing experiences tend to underscore the importance of the long term perspective (i.e. economy-wide decarbonisation by 2050) as necessary for framing the approach to planning over shorter time horizons (e.g. by 2030 or thereabouts). This is not a purely theoretical consideration either. The national experiences from places such as the UK, France, Germany and Italy, strongly suggest that laying out clear objectives for the energy system/economy to 2050, and exploring concrete pathways and risks to achieving those objectives, does have meaningful impacts on the way that shorter term planning and policy is done. This occurs, in particular, when back-casting from 2050 goals is used to derive implications for the most *dynamically* cost-effective pathways to the ultimate policy objective, and when this information is used subsequently to guide short term targets, policies and measures via benchmarks.

At its most basic level, effective planning is able to provide a robust answer to four key questions, namely:

- a. What (technical) potentials are available to achieve the targets?
- b. Can these technical potentials be exploited in a way that is achievable?
- c. Will the transformation pathways be affordable? (cost)
- d. Will the transformation approach be acceptable to the public?

These questions help to identify the key issues that need to be resolved. For instance, that all sectors need to contribute (availability), that potentials need to be unlocked in a timely manner (achievability), that solving distributional issues is key and dynamic cost efficiency matters (affordability), that as the energy sector transforms, interfaces with between the energy system transformation and the public will become more noticeable and thus acceptability and backing for key changes is vital (acceptability).

In answering these questions, national experiences also tend to suggest an important role for so-called “bottom up” assessment and development of the strategy. Typically, national experts placed a higher value on the scenarios and plans that were developed based on detailed, sectoral level analysis, than those developed by large and sophisticated macroeconomic/energy system models. This preference appeared to reflect the greater transparency of the bottom up approaches, the fact that “real world” feasibility issues could be more easily integrated into the analysis, and the fact that they tend to prove a more comprehensible basis for engagement with stakeholders and sectoral experts. System-wide modelling tools tended to be seen as still necessary, however, for instance as a way of providing a robustness check on results, but nevertheless as a complement instead of a replacement for bottom up analysis.

Reliable and useful plan-making also needs to include a robust risk assessment of the proposed strategy(ies) for achieving targets. A common weakness of some plans/scenario exercises is a tendency to settle for what might be called a “single trend analysis”, where excessive analytical weight is placed on one projection or trajectory and insufficient robustness assessment is conducted around the implications of potential deviations from that trajectory for the plan. Experience with planning from the sectoral to the aggregate level underscores the unpredictability of future scenarios. Given the state of flux of the energy sector and the international climate policy context, there is arguably an even stronger need to explicitly reflect the “new normal” of uncertainties in terms of technology, markets and regulatory environment.

Effective risk management strategies thus call for an explicit risk assessment in the plans. There is a need to explicitly explore uncertainties in the answers provided to each of the 4 questions highlighted above and their implications for achieving the overarching policy objective. At a minimum, this implies exploring uncertainties around basic underlying emissions drivers (e.g. based on a simple Kaya decomposition analysis), energy and technology costs, policy effectiveness and risks of technology lock-in due to long lived capital stock. Rather than focusing on a single trend, good plans should ideally focus on “pathways” that reflect the insights of the risk assessment about the robustness of different strategies. “Bottom up” sectoral level assessments and engagement with stakeholders and sectoral experts is vital to doing performing a robust risk assessment, since it can allow for real-world risks that may not be captured by more aggregate level macroeconomic/energy system modelling to be captured with higher granularity.

PLAN-MAKING AS A TOOL FOR BUILDING STAKEHOLDER CONSENSUS AROUND SPECIFIC POLICY STRATEGIES

A very strong theme emerging from the national experiences of plan-making is that a crucial function of plan-making is when it **serves as a focal point for the process of building stakeholder consensus around policy strategies**. There were several clear examples of where plan-making or scenario building has served this purpose. For instance:

- a. The **French ‘National Debate on Energy Transition’ of 2013/2014**: this process proved effective at moving stakeholders beyond initially 180°opposed positions (e.g. “nuclear is on the table” vs. “nuclear is not on the table”; “energy sobriety is essential to the transition” vs “energy sobriety has no role in the transition”). Engaging these same stakeholders in a joint, iterative process of plan-making (together with independent technical experts) was crucial to

the consensus that emerged from this process, much of which informed the targets and content of the subsequent “National Law for Energy Transition and Green Growth”.

- b. The **development of the UK Climate Change Committee’s carbon-budget recommendations**: the combination of giving independent experts a privileged role in the plan-development process, and the nature of the institution as a public-facing, transparent body that constantly engages with stakeholders throughout the development of each new carbon budget has been critical to improving consensus and public acceptance of UK climate policy. This has in turn contributed to more ambitious (science-based) and effective policy, as evidenced for example by the relatively high degree of coherence between 2050 targets and short term policy targets that have been legislated in the UK.
- c. The **analytical and political underpinnings of German climate and energy policy**: While Germany does not have a unique institution like the UK Committee on Climate Change (CCC), the country has a long history of detailed “bottom up” climate policy scenario/plan development going back to the 1990s. These various processes, which extend from very intensive plan-development processes with stakeholders at regional level (such as most recently in the case of North Rhine Westphalia), to the development of plans by think tanks closely aligned to the major political parties, to official national strategies based on extensive expert and public consultation, have cumulatively contributed to a consensus on a number of key components of the national decarbonisation strategy. This process has contributed to the development of significant analytical and political capital and helped to frame the narratives and drive agreement across political lines about the national energy transition.
- d. The **Italian Government Working Group for scenario elaboration and long term planning** is a new initiative driven by the Italian Government that is focusing on a long term decarbonisation and energy scenarios. This process is still on-going. However, the process is placing a high degree of importance on stakeholder involvement in the strategy development stage of the process (rather than just final consultation). Stakeholder involvement appears to be critical to ensuring that the ultimate scenarios/plans are publically acceptable and respond to the key concerns of stakeholders. The strong participation of stakeholders in Italy also appear to be necessary for other very practical functions of plan-making and scenario-development, such as data gathering, given the decentralised nature of key information for scenario development in Italy.

However, simply *involving* stakeholders in national planning exercises does not necessarily guarantee that the process will deliver a meaningful degree of consensus. Other conditions for effective stakeholder engagement also need to be in place.

One key condition for maximising the effectiveness of stakeholder consultation is ensuring that there is a way of describing different scenarios in a way that is intelligible to stakeholders. This was a key issue in the French case, for instance, where different stakeholders arrived at the national debate forum with their own scenarios already established. Several of these scenarios led to wildly different conclusions but were in large part incomparable because the underlying assumptions and mechanisms for arriving at the conclusions came from a relatively intransparent “black box” kind of analysis. To resolve this potential impasse, the solution of the French chair was to have all the scenarios fitted into a common format that could describe the key drivers of emissions and energy use on a sector by sector basis. This led to a kind of “dashboard” of indicators that allowed the scenarios to be easily understood by everyone, tested for coherence and plausibility in the debate,

and for the implications of underlying assumptions to be laid bare. This greatly facilitated the exposure of dubious assumptions and the creation of mutual understanding of the real world implications of their attachments to certain “symbolic” issues narratives.

However the French example does not seem to be unique in this respect. A strong conclusion from the German and UK experiences is also that actual content and process of arriving at the transition need to be intelligible to key stakeholders the public if the plans are to have robust public support. To this end, the integration of the public in the process of scenario buildings and also the role of “bottom up” sectoral analysis in these two countries seem to have been important for making scenarios concrete and intelligible to stakeholders.

Another important pre-condition for plans or scenarios to be credible and robust is the use of multi-criteria analysis for evaluating alternative strategies. This obviously matters for ensuring that plans are consistent with other key policy objectives. However, it’s also important for ensuring that plans are politically robust. If the strategies contained within plans cannot speak intelligibly to the key political concerns of major stakeholders and demonstrate how they take them into account, then they may be less likely to survive the political process and provide a stable foundation for policy. However, the key political concerns of stakeholders may be different from one context to another. Thus a standardised, model-based approach to taking other policy objectives or impacts into account will tend to be unsatisfactory. This suggests that the common approach in EU impact assessment of assessing the monetary value of costs and benefits in terms of health, investment and GDP impacts may prove too limiting to speak to the real world concerns of key stakeholders in individual national contexts. A more flexible approach may be necessary in the development of EU climate and energy plans.

Another important pre-condition for plan-making to contribute to consensus building is the way the process is organised. In particular, using the planning process to allow stakeholder consensus to emerge appears to require:

- *An iterative process* of dialogue. This is often important for helping stakeholders to move beyond strong initial (emotional) attachments to high level symbolic narratives, which may be incomplete or overly simplistic and thus a barrier to consensus on a feasible national strategy. A key lesson from the North Rhine Westphalia experience, which involved 8 rounds of dialogue by specific working groups).
- *Time* for the process to play out (North Rhine Westphalia took 18 months, the French Energy Transition Debate around the same period of time, and the UK Climate Change Committee appears to spend a lot of time engaging with stakeholders).
- *A clearly mandated role for independent experts* to guide the process and ensure that dialogue is based on robust evidence, data, and analysis.
- *Stakeholder working groups of manageable sizes*.
- Having the right *data* available to discuss key issues. The Italian case shows that very simple practical issues, such as lack of available data on key questions of interest, can hamper the process of dialogue.
- *Analytical tools for describing scenarios that are intelligible to stakeholders* (see above).

THE ROLE OF INSTITUTIONS

An important theme of the workshop was the role of institutional actors, and. To some extent this discussion centred on the role of independent expert bodies, in supporting effective plan-making and policy development, such as the UK Climate Change Committee. However, other relevant institutions such as the European Environment Agency, and role of key institutional actors such as DSOs and TSOs in the electricity sector were also discussed.

National Expert Committees

One obviously needs to be careful about drawing conclusions about optimal institutional arrangements for all EU Member States, since different countries will have different governance cultures. Nevertheless, the discussion suggested that national independent expert institutions such as the UK Climate Change Committee can and do play a very strong and positive role in driving effective plan-making and policy. They can do this in several ways:

Firstly, and most obviously, such institutions can provide good quality and unbiased expertise to governments. They can thus potentially act as a potential counterweight and guardian of the public interest viz. influential stakeholders in developing plans. However, this expertise can serve not only for the plan- and policy-making process but also, critically, in monitoring and evaluating progress towards achieving the objectives of the plan. National experiences of plan-making in EU Member States suggests that in general high frequency monitoring is vital for ensuring that the plan remains consistent with the overarching objectives, given the unpredictability of key parameters that are used in formulating any plan. Performing a regular review and risk-monitoring function can also help to ensure that governments are held to account for correct implementation and delivery with respect to national stakeholders.

Secondly, independent expert institutions can potentially be important in facilitating stakeholder engagement in plan-making and promoting public consensus around national policy strategies. For instance, in the UK, the CCC appears to lead stakeholder engagement in plan-making process around the carbon budget, partly because it is respected as an independent expert institution and partly because it has much of the analytical capacity to manage a dedicated process for stakeholder consultation and communication. Further, the CCC appears to act as a kind of national focal point for the public to understand and evaluate the effectiveness of national policy.

Thirdly, by being outside the political process, independent expert institutions can potentially help to provide greater stability and consistency to planning and implementation of governmental policy. This can occur partly because, if the institution holds a privileged position in the national discourse on policy, it can be hard for the government to ignore its recommendations. Furthermore, by operating on a time-horizon that goes beyond the political cycle (e.g. by focusing on implications of current policy for 2050 climate targets), and by driving stakeholder consensus through its own activities, such institutions can help provide stability that might not be forthcoming from the political process.

The French and other experiences with similar institutions appear too early to evaluate. However, the UK experience suggests that the success of the UK CCC in performing its role has depended on:

- A clear mandate set out in legislation
- Members who are technical experts rather than representatives of interest groups
- That the organisation is appropriately resourced
- Taking an approach based on evidence and analysis
- That the body is public facing, very focused on transparency, and continuously talking with the full range of stakeholders

To be sure, the UK CCC experience also suggests that such institutions can never completely overcome politics or short run compromises made by governments on some of its recommendations. However, by and large, it appears to have been relatively effective at serving its intended purpose.

European Level Aggregation, Monitoring and Evaluation (MMR/EEA)

A vital aspect of plan-making in the European Context is the role of EU institutions in aggregating information from Member States plans and reports to EU level for relevant EU policy processes, ensuring the quality of this information, and monitoring implementation of EU policy in the Member States. The European Energy Agency has obtained substantial experience with these roles via the Monitoring Mechanism Regulation. The MMR experience is informative about what is important to keep/improve in the design of the planning and reporting processes under the new Energy Union governance mechanism.

One key lesson from the MMR is that keeping track of EU progress will require strengthened efforts to ensure *complete data from all Member States*. For instance, a key requirement with regard to long term planning under the MMR is that MS develop “Low-Carbon Development Strategies” (LCDS). However, to date, only 9 of the 28 MS have submitted their LCDS to the EEA. Moreover, the lack of a binding template for completing the LCDS has led to concerns that even with 28 LCDS, a coherent and reliable EU picture will be impossible to produce. This has particularly important implications for the development of a coherent EU strategy with respect to 2050 decarbonisation goals. As the MS data is incomplete, the EU therefore is required to rely on the EU 2050 Roadmap as the main reference point in its own scenario analysis. Greater completeness and consistency of MS strategies and scenarios for decarbonisation beyond 2030 is therefore necessary.

The experience of the MMR also showed that there is a lack of consistency of MS’s approaches to doing their national projections even towards their short/medium term targets. For instance, because there is no standardisation of methods for projections, 28 MS use 28 different methods for constructing their projections towards, for example, their ESD targets. There also tends to be inconsistent use by MS of Commission guidance on key assumptions, such as energy prices, GDP growth, etc. Ensuring standardisation and transparency of approaches to constructing forward-looking projections will be critical. In this respect, one way of increasing transparency may be to require MS not only to use common assumptions on key international variables, but also to provide a simple Kaya decomposition of the drivers underlying their projections. This could potentially facilitate both greater transparency and be the basis for assessing the consistency and coherence of approaches to developing projections.

A final important lesson from the MMR and from the 2020 Climate and Energy Planning and Reporting exercise is that planning and reporting to the EU must not be a one-way information flow. To this end, an explicit process for ensuring that reporting is a meaningful part of the governance process is necessary. The proposal for an Energy Union governance mechanism based (loosely) on the European Semester is encouraging in this regard, but the potential modalities of this process for energy remain to be clearly developed from the Commission's end.

Power market institutions

The role of electricity market institutions and how to integrate them into the national planning process was also discussed. One of the key questions was how to ensure that national institutions, including TSOs, DSOs, NRAs are given clear directional signals from their political masters so that what they have to anticipate and "plan" for. One of the challenges faced by some of these institutions, like TSOs or NRAs, is that they already have a culture of cooperation with each other, but they cannot be the "tail that wags the dog". They need to have a clear mandate from their political leaders about how far they can go. They also need to have clear signals on what is required of them. Regional cooperation at a political level (together with deepening relationships between TSOs/DSOs) are thus key to an European strategy for decarbonising power markets.

The role of "planning" to integrate large shares of intermittent renewable energy by 2030 was highlighted as a key question for the new governance mechanism. There was agreement on the need for a strong role for regional security centres in regional system operation/planning and a need for better harmonisation of methodologies in developing adequacy assessments. With regard to planning for other functions of the system, there were different views, with some arguing for an approach based on the need for planning to "flexibilize" the system. Others argued for an approach based on a breakdown of key functions of the system and the need to be more consistent in the approach applied to each function. To some extent, this disagreement seemed to reflect different uses of language, rather than substantive differences about what is necessary. Overall, however, there was general agreement that whether via planning or other governance tools, there is a need for clear political mandates to institutional actors to prepare for the integration of higher shares of decarbonised power production.

DIFFERENCES BETWEEN MEMBER STATES AND CAPACITY BUILDING

The role of differences between Member States was another important theme of the workshop. These differences relate, for instance, to the role of respective institutions in different Member States for developing policy (e.g. environment vs. energy). For instance, in a country like Latvia, the majority of emissions stem from non-energy sources and transport, and thus climate policy is almost entirely managed by the environment ministry. Framing decarbonisation policy within the context of energy policy (as done in the Energy Union planning process) thus potentially creates institutional complications for governments in terms of implementation.

Sometimes differences related the level of engagement of national stakeholders with the issue of climate change in general. For instance, the comment was made that in many central and eastern European countries, the public may be less engaged and committed to the issue of climate change than to other domestic objectives, such as economic development. A key question is therefore how to ensure an effective level of stakeholder engagement and pressure on governments to formulate

and ambitious plans and deliver on them. This question underscores the need—underscored above—to ensure that plans are expressed in terms of nationally relevant policy objectives for the various stakeholders. Otherwise they do not stand a chance in the national political debate.

To this end, the role of the low-carbon development strategy (LCDS) process (or LEDS as it is re-framed in the Paris Agreement)¹ appears to take on additional importance. But so does the mainstreaming of climate objectives into EU level governance of the allocation of EU cohesion funds. It was noted that at present, while a large share of such funds are in principle required to be dedicated to climate and energy related activities (under the 2014-2020 MFF) in practice there is significant slippage between the high level objectives and the on the ground implementation. Better integration of low-carbon strategies and national development objectives in the planning and use of Cohesion funds (and stronger conditionality on their use) appear to be necessary.

This relates to a further difference between Member States with is the level of analytical and plan-making experience across different Member States. For instance, as of 2016, only 9 countries have actually submitted a low-carbon development strategy to the EEA as per their requirement in the Monitoring Mechanism Regulation. Moreover, it is expected that the content and approach to these strategies will vary significantly across Member States. This creates a challenge for the EEA in aggregating these strategies into an EU-wide aggregate vision of the intended low-carbon transition of MS. However, it also creates difficulties for ensuring that 2030 NECPs are done consistently with longer term objectives in mind and for the better integration of, say, cohesion funds into national low-carbon development strategies. Further capacity building therefore seems necessary. This will be aided by the development of the new NECPs. However, strengthening national institutional and civil society capacity will also be essential.

¹ See IDDRI's Policy Brief on LT-LEDS : Waisman, H., Spencer, T., Colombier, M. (2016). [Long-term low emissions development strategies and the Paris Agreement – Why, what and how?](#), IDDRI, *Policy Briefs* N°06/16, 4p.