Climate Policy on Energy Supply

Advice 6: Climate Crisis Policy Team (KBT)

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Summary

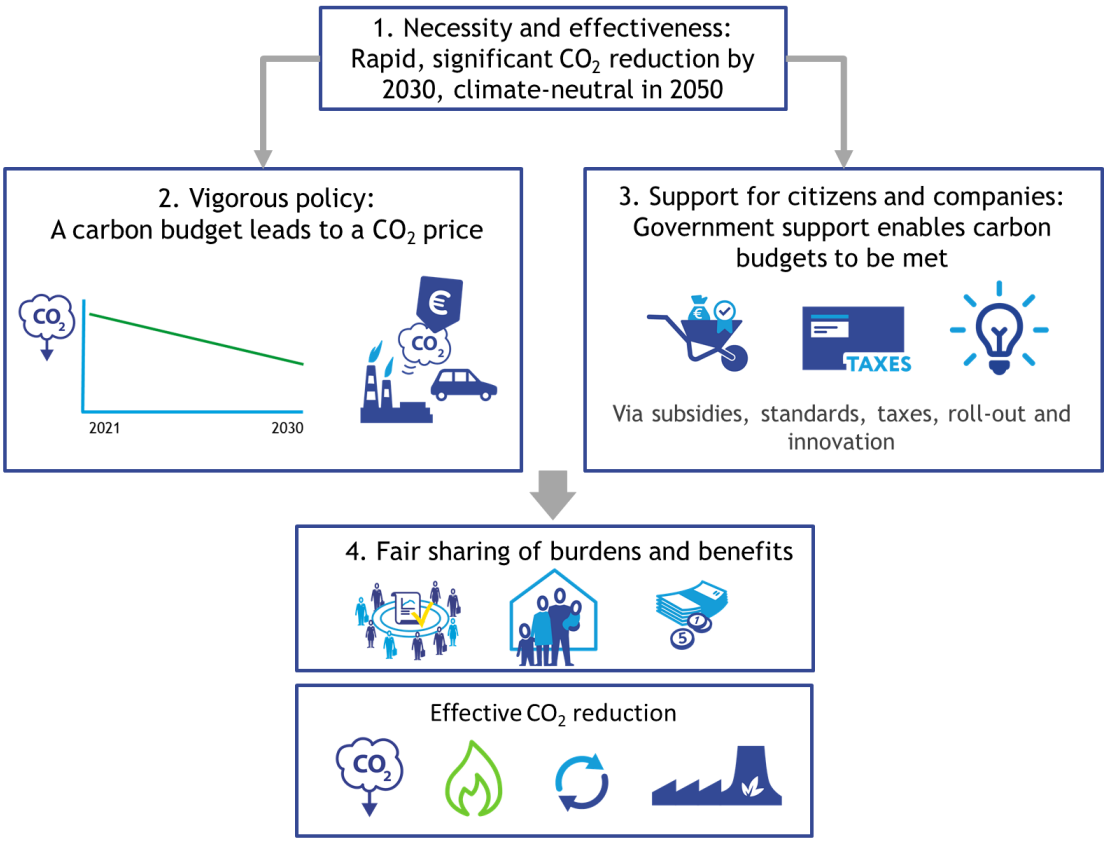
The political will exists across Europe to reduce climate emissions as rapidly as possible, cutting them by around half by 2030 compared with 1990 levels. By that time, an even greater reduction is feasible for the electricity supply, though for gas this is rather harder. By 2050 the entire energy sector (gas and electricity) needs to be climate-neutral.

In the KBT's view, the Netherlands should opt for offshore wind as the main source of electrical power. Onshore wind capacity should be less dispersed, to the benefit of the landscape, and with local initiatives the community should benefit financially to maintain public support for the transition. There should be increasing electrification as we move towards 2030, with electricity dominating by 2050. Hydrogen should only be used when it is cheaper and more sustainable than direct electrification and for the purpose of power storage to balance out periods of power surplus and deficit.

In this advice the KBT sets out a four-track policy package that will guarantee securement of the climate targets, as summarised in Figure 1:

- A clear message on the necessity of climate policy and the additional challenge of electrification and switching to hydrogen in other sectors (necessity and effectiveness).
- Vigorous policy constructed around a strict ETS emissions cap for power and hydrogen production, including a minimum price to provide investment security.
- Additional policy for operating within the ETS cap, guarantees for delivery security, support for emerging technologies, and adequate roll-out of energy infrastructure.
- Energy security for all and compensation of added costs for low-income groups.

Figure 1 - Main thrust of KBT advice



1. Necessity and effectiveness

The KBT sees a number of barriers hampering achievement of a climate-neutral energy supply, demonstrating the need for and effectiveness of the climate policy package set out here:

- The government has no end-game in its sights, providing no more than a shaky basis for roll-out in technical and geographical terms.
- The rate at which renewable capacity and system flexibility (including demand response) are currently being realised is too slow to provide sufficient and sufficiently reliable energy with far less CO_2 in 2030 and zero CO_2 in 2050.
- If the SDE++ scheme[1] is discontinued for power generators, some other form of investment security is needed.
- The present infrastructure is inadequate for handling the vastly increased demand for electricity, which will be generated more diffusely, moreover.
- There is likely to be a shortfall of suitably trained personnel for the envisaged roll-out of renewable capacity and expanded energy infrastructure.

[1] SDE++ = Renewable Energy and Climate Transition Incentive Scheme.

2. Changes to the ETS to guarantee CO_2 reductions

The KBT sees the European Emissions Trading System (EU ETS) as the single most important instrument for reducing emissions, but identifies a number of concrete changes at the European level which the Netherlands should support or advocate:

- Tighten the emissions cap to -55% in 2030 and climate-neutral in 2050, in line with the target of the EU Green Deal.
- Introduce a carbon border adjustment system at the EU's outer borders.
- Introduce a minimum CO_2 price to improve the system's predictability and increase investor security.
- Include waste incineration plants in the EU ETS.

3. Additional government policy

To decarbonise the energy supply as required, there need to be additional policies under the EU ETS to guarantee that reduction targets are secured, that there is sufficient baseload and flexible capacity, that infrastructure is available in time, and that all parties can adequately fulfil their allotted tasks. These objectives can be achieved with the following policies:

- Introduce an increasingly stringent CO_2 emissions limit for electricity and gas suppliers, to keep the transition on track.
- Introduce suitable regulations and financial incentives to get enough generating capacity and flexibility provisions up and running (including demand response).
- Ensure timely roll-out of infrastructure by reserving locations, enabling pre-investment and getting grid operators to focus more on availability than on efficiency.
- Flesh out a hydrogen market (regulations, competences) and infrastructure so import/production can be kept aligned with evolving demand.

4. Support

Public support for onshore wind can be created by concentrating capacity at a limited number of locations, providing financial reimbursement for communities for local wind and solar initiatives, compensating low-income groups for increased energy costs, maintaining high levels of delivery security, and due participation by citizens and citizen cooperatives.