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Greenbook
2030 a framework for climate and energy policies

4. QUESTIONS

4.1. General

Which lessons from the 2020 framework and the present state of the EU energy system are most important when designing policies for 2030?

The green paper is an opportunity to bring Europe on the right way. There has to be a systemic approach for the goal setting process. A systemic approach is makes it possible to keep all relevant policies in sight. E.g. energy, climate, economy and environment policies have to be considered. Europe's policy must be coordinated together with the rest of the world to ensure the vitality of the industrial location Europe. Innovation in emerging energy technology e.g. in mobility and buildings could be a proper way to set Europeans goals. Mobility in Europe today depends to a great extent on fossil energy. This has to be changed mainly by promoting electric rail. ÖBB-trains, for example, are operated by electric energy of which more than 90% comes from renewable sources.

All over Europe electric railways are confronted with increasing costs caused by energy taxes as well as energy- and environmental regulations, which do not apply to their competitors on the road. This results in a loss of competitiveness relative to road traffic. This situation leads to absurd consequences. Transport is shifted from rail to road. The result is an increase of CO₂-Emissions as the specific CO₂-emissions per traffic-unit are in average ten times larger in road transport than they are in rail transport.

A new framework for climate- and energy-policies has to make sure, that there are no environmental taxes and regulations which cause distortions of competition at the expense of rail transport.

4.2. Targets

Which targets for 2030 would be most effective in driving the objectives of climate and energy policy? At what level should they apply (EU, Member States, or sectoral), and to what extent should they be legally binding?

First of all it is necessary that a couple of important European regulations for energy should be implemented. The single European energy market should finally be put into practice. There should be a coordination and convergence of national support schemes for renewable energy. Furthermore the full interconnection between national networks is necessary. The energy costs of the whole energy system have to be regarded and to be minimized. Before new goals are set it is important that a lot of other things are done as mentioned above.

A proper way is the orientation towards the concept of energy service. The needs of the people should be fulfilled with a minimum on energy consumption. Furthermore energy efficiency is important to meet the current problems of Europe. A policy framework should be established by the Commission to ensure that each energy service is provided with a

minimum level on energy. Demand side Management is also a good way to optimize the energy system costs.

The lack of co-ordination between Member States' different support schemes for renewables has resulted in investments while they are not necessarily the most cost-effective ones. The national policy approach on renewables has caused significant market distortion. A strategic European approach to the location and development of renewables should be implemented (e.g. Wind in the North, Sun in the South and Water in the Alps). Greater co-ordination of national support schemes for low-carbon energy is required.

A shift from road to environmentally friendly modes such as railways is necessary, therefore any legislation supporting this aim is helpful – especially the internalisation of external costs (including congestion) for all transport modes are a useful measure and has to be elaborated on.

Have there been inconsistencies in the current 2020 targets and if so how can the coherence of potential 2030 targets be better ensured?

In many countries there have been extremely high feed-in-tariffs for renewables. Investments have been diverted away from locations where they might have had greater impact. The investments in grid upgrades to integrate new renewable capacity are not happening quickly enough. In Germany the feed-in-tariffs are now costing the consumers 21 billion € per anno. All this drives the costs for the whole energy system. In this view the competitiveness of Europe is at stake. The mobility sector as well as the energy demand of buildings are often neglected, here should be more attention given by the Commission.

In Austria the electric driven railway is confronted with a high costs through energy- and environmental regulations. The high energy and environmental taxes for railways compared to other transport modes lead to lower competitiveness compared with road traffic.

Given the fact that the impact of the railway in Austria is ten times smaller than the road traffic-impact, measured by greenhouse gas emissions per km, the burden for railways has to be reduced.

Are targets for sub-sectors such as transport, agriculture, industry appropriate and, if so, which ones? For example, is a renewables target necessary for transport, given the targets for CO₂ reductions for passenger cars and light commercial vehicles?

Target-setting for sectors is only useful when targets are implemented consistently across Europe. Otherwise it results in distortion of competition between the member states in Europe. Orientation towards the concept of energy services seems to be a useful option instead of setting targets for sectors. Future development in the transport sector, e.g. individual mobility in the private sector should be reorganized. New technologies with high efficiency and alternative fuel strategies should be fostered. Mobility in cities should be based mostly on public transport systems and mobility in long distance and freight transport should favour the electric driven railway. Air traffic as well as shipping traffic should be taken in responsibility for their greenhouse gas emissions. An internalisation of external costs would help to solve the congestion problem and the high level of emissions through the shift towards environmental friendly transport modes.

How can targets reflect better the economic viability and the changing degree of maturity of technologies in the 2030 framework?

Feed-in-tariffs for renewables in the field of electricity should be phased out and market forces should push the technologies. Today we don't have such a system. The same thing should happen within the mobility sector as well as in the building sector. Innovations in these two areas are the key elements for further energy policy. So far we do not see a sufficient economically viable system in the road transport.

In the mobility sector there is another way to reduce energy demand effectively. By intelligent land use planning and by cutting a range of subsidies for traffic-generating settlement structures, the main cause of traffic growth could be eradicated. Beside this land use planning and cutting counterproductive subsidies it is necessary to make the internalisation of external costs obligatory – especially for road freight haulage.

How should progress be assessed for other aspects of EU energy policy, such as security of supply, which may not be captured by the headline targets?

From a security of supply and from a price perspective the EU internal market has not stimulated a high-level political coordination of national energy policies. An essential element is the supply guarantee with electricity for European society. Promotion of renewables without investments in grid infrastructure is not useful. Existing generation capacity is closing down. Too few investments in large new plants are made to replace them. Therefore we face the problem of not having enough back-up capacity to cope with the fluctuation of renewables. The electricity sector represents only 20 % of the energy demand. Other sectors (e.g. mobility, buildings) must be tackled with priority to handle the future problems in the energy sector. Energy efficiency, the orientation on energy services, the use of public transport systems are all options that have to be discussed. But these options are not yet pushed enough through according policy in Europe.

4.3. Instruments

Are changes necessary to other policy instruments and how they interact with one another, including between the EU and national levels?

We need a greater coherence between different EU policies, e.g. energy policy with environmental policy. The Water Framework Directive (WFD) reduces the performance of hydropower stations and undermines the renewable energy policy in Austria. Austria relies to a large extent on hydropower, so the WFD has a very high impact on Austrian energy policy. The Austrian Federal Railways rely on hydroelectric power stations for their environmentally friendly energy supply. Hydropower is an essential energy source for Austria. This should be kept in mind in the discussion about renewables in Europe.

Again we call for the internalisation of external costs for the transport sector, but also for reducing regulations and subsidies which promote growth of road traffic. (e.g. insufficient taxation of company cars, tax subsidies for business travel by private car, infrastructure subsidies for lorry traffic)

How should specific measures at the EU and national level best be defined to optimise cost-efficiency of meeting climate and energy objectives?

Promotion of research and development has to ensure that new technologies in the field of renewable energy gain marketability. To accelerate innovation in this way can create jobs in

Europe instead of China or other places in the world. The concept of energy services seems to be a useful way to push such an innovation process. It is important to take the cost of the whole energy system into account. This is one of the important factors that guarantee jobs and wealth for Europe.

Efficiency of the whole transport sector could be increased by instruments which hitherto have not officially been part of climate and energy policies. Internalisation of external cost of transport can avoid market failure and increase welfare. Cutting environmentally counterproductive subsidies and repealing inappropriate regulations leads to more efficient allocation of resources and strengthens our economy. Among others the following measures have to be taken:

- Internalisation of all relevant external cost-components (including external congestion cost in urban road traffic) should be mandatory for the whole transport sector.
- Cutting a large number of direct and indirect subsidies for road traffic (e.g. tax subsidies for company cars and business travel by private car, infrastructure subsidies for lorry traffic, parking requirements laid down in construction codes, cross-subsidies from petrol driven to diesel driven vehicles..)
- Cutting direct and indirect subsidies for traffic inducing settlement structures. Infrastructure cost related to real estate development has to be covered by property owners via fees instead of tax payers money.
- So called “energy oriented regional planning” has to be established to minimize transport related energy consumption.
- Avoiding or compensating market distortions caused by environmental taxes and fees which apply to electric rail but not to its competitors on the road. Such distortions are caused by energy taxes, fees for the promotion of renewable energy sources and emission trading which affect only the price of electrical energy but not the price of road fuels.

Which measures could be envisaged to make further energy savings most cost-effectively?

As many times mentioned, the orientation on the concept of energy services and energy efficiency is most important to reach European energy goals.

In the transport sector stepping on the gas and on the brake at the same time will maximize cost and minimize effect. Therefore it is most important in the transport sector to repeal regulations and cut direct and indirect subsidies which promote the growth of energy-intensive modes of transport. On the other hand taxes and other financial burdens on energy-efficient modes have to be reduced. The latter applies for example to taxes on electrical energy for rail transport.

How can EU research and innovation policies best support the achievement of the 2030 framework?

Innovation is most important for the energy future in the EU, therefore innovation in the mobility sector, electricity sector as well as in the building sector must be supported and implemented. In many cases new storage technology for electricity is discussed. In Austria we have particularly favourable conditions for hydropower pump storage. At this time investments in this technology seem to be risky, but in the future our systems need such flexible units to guarantee strong and reliable supply of electricity.

4.4. Competitiveness and security of supply

Which elements of the framework for climate and energy policies could be strengthened to better promote job creation, growth and competitiveness?

Most important for integration of more renewables in the energy system are grid investments. To ensure cross-border interconnection is very necessary to reduce the cost of the energy system. Furthermore it is also one condition that renewables were built at this place to bring the best benefit for Europe. E.g. Wind power in Northern Europe, Sun power in Southern Europe, Hydropower in the Alps. The impact of the Water Framework Directive of hydropower should also address economic issues.

At the moment – unfortunately – there seems to be no such thing as promotion of growth and competitiveness by climate and energy policies of the EU. Quite the opposite is the case. Because of high energy cost, steel and chemical industries tend to relocate their production (including jobs) to places outside the EU.¹ Industry has to cope with high energy prices mainly because the EU lacks efficient energy and climate policies for the road transport sector. To compensate for a 30-percent increase of CO₂-emissions from transport, other sectors as industry or the railways are burdened with ever increasing costs of environmental taxes and regulations. Fair burden-sharing between all sectors – including road transport – would be the most important step to avoid the transfer of jobs from Europe to locations with lower energy prices.

What evidence is there for carbon leakage under the current framework and can this be quantified? How could this problem be addressed in the 2030 framework?

Energy related costs play a major role in energy-intensive Industries. Future developments in other parts of the world should be considered when new targets are being set. Europe's competitiveness has to be strengthened to guarantee jobs and wealth. So one key issue in Europe is to improve energy efficiency in all energy related sectors more rapidly than in the past. Transport in Europe has to be changed for the citizens as well as for the industry. For cars in urban areas there should be minimum standards of greenhouse gas emission legally obligated. For all buildings in Europe there should be mandatory minimum standards for energy consumption.

Certain energy taxes, fees for the promotion of renewable energy and the cost of emission trading strongly affects the price of electric energy but not the price of road fuels. Rail undertakings have to pass on the additional energy cost to their customers which causes a shift from rail to road. There is evidence that unequal treatment of electrical energy for rail-traction relative to road fuels not only causes a kind of “carbon leakage” from rail towards road but it also significantly increases the total amount of CO₂-emissions. Based on standard road-rail cross price-elasticities the shift from rail to road can be estimated. As specific emissions are higher in road transport this shift results in an increase of CO₂-emissions.

A future framework for climate and energy policies has to create a level playing field with regard to environmental burdens on road and rail transport.

What are the specific drivers in observed trends in energy costs and to what extent can the EU influence them?

¹ VOeST-Alpine, BASF

Energy costs are rising because EU-legislation has failed to extend effective(!) climate and energy policies to the road transport sector. Instead it has burdened industry and energy sector (and with it indirectly the railways) with ever increasing energy taxes as well as costs of renewable energy-promotion and emission trading.

Effective measures in the transport sector – mainly cutting direct and indirect subsidies for road transport and mandatory internalisation of external cost – could be important contributions to relieve industry and energy sector from undue burdens.

How should uncertainty about efforts and the level of commitments that other developed countries and economically important developing nations will make in the on-going international negotiations be taken into account?

Climate policy targets of Europe should strengthen the long-term competitiveness of Europe. To reduce the important dependency of fossil fuel and to increase the energy efficiency should be the main goal of Europe's Climate policy.

How can the EU best exploit the development of indigenous conventional and unconventional energy sources within the EU to contribute to reduced energy prices and import dependency?

Renewable energy sources have to be developed with a European perspective in mind. To reduce total energy costs, priority has to be given to those projects with the lowest marginal cost of production. Regarding the Alpine area this means that hydropower has to be promoted and given priority. The Water Framework Directive (WFD) has to be implemented taking into account the economic importance of renewable energy sources. In addition due priority has to be given to the extension and upgrading of Trans-European power links. Long term market conditions have to set as to promote private investment in transmission networks.

In future the promotion of renewable energies should be subject to efficiency criteria. Renewables should be funded only if they can reach market parity within the foreseeable future and – most important – if they can, considering all indirect side effects, in fact(!) bring a relevant reduction in CO₂-emissions. Under such criteria, most types of so called “bio-fuels”, for example, would not be entitled to any subsidies.

It would not only be a cost effective but a highly lucrative measure to cut road traffic-inducing tax subsidies (e.g. for company cars and for car-commuting) or subsidies for traffic-generating settlement structures.

How should the new framework ensure an equitable distribution of effort among Member States? What concrete steps can be taken to reflect their different abilities to implement climate and energy measures?

What mechanisms can be envisaged to promote cooperation and a fair effort sharing between Member States whilst seeking the most cost-effective delivery of new climate and energy objectives?

In the first place the chaotic multitude of partly contradicting market interventions, created under the framework of EU climate and energy policies, has to be reorganized. Energy-respectively CO₂-taxes, emission trading, energy efficiency legislation and other relevant legislations have to be merged into a coherent system based on uniform principles. In this way unjustified privileges for the single largest energy consumer – road traffic – would be a thing of the past. Multiple funding as well as multiple financial burdens could be avoided. An

important first step in this direction will be a transparent and mandatory system of energy-respectively CO₂-taxation.

A transparent system of energy taxation has to take into account the cross-connections between fuel taxation and road cost accounts. It has to be explicitly defined for example, what share of the fuel tax can actually be regarded as energy tax as opposed to the share of fuel taxes which is listed in the national road cost accounts as contribution to cover road cost.