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European Commission
Directorate General Energy &
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BELGIUM

via email:
CLIMA-ENERGY-GREEN-PAPER-2030@ec.europa.eu

Public Affairs

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Wien Energie GmbH's response to the Green Paper "A 2030 framework for climate and energy policies"

Dear Sir or Madam,

Please find below the response of Wien Energie GmbH to the Green Paper "A 2030 framework for climate and energy policies".

Page 2 hereof contains an executive summary of our key messages. The subsequent pages provide further details relating to the arguments put forward in the key messages.

Introduction

Both the Austrian and the European energy sectors currently face numerous challenges. These range from the necessary increases in efficiency in the areas of energy production and use, safeguarding security of supply and increasing the share of renewables in the energy mix to the expansion of transmission and distribution networks as well as the decarbonisation of our energy system.

In order to meet these extremely complex challenges, there is a clear need for a long-term and integrated energy policy which integrates the respective expertise of all market players affected. It is for this reason that we welcome the publication of the Green Paper "A 2030 framework for climate and energy policies". In our opinion, this Green Paper is the first phase in a comprehensive debate on the energy and environmental targets of the European Union and the associated legislative steps for the post-2020 period.

The European Commission has highlighted that this debate must take into account the ambitious long-term targets of the Union as well as the precarious economic situation across Europe. In this context, supplies of affordable and sustainable energy will play an important role. The Euro crisis and the fall in energy prices in the USA have led to new challenges.

Wien Energie GmbH welcomes the approach of the European Commission with regard to taking the economic situation into account in the discussion of targets. Final decisions regarding changes to the legislative framework for the post-2020 period must be taken in a balanced manner, considering climate policy, social and economic perspectives.

Key messages of Wien Energie GmbH with regard to the Green Paper - A 2030 framework for climate and energy policies

Key Message 1:

The three targets (GHG emission reduction, energy efficiency and renewable energies) can, if pursued appropriately, all play their role in limiting climate change and in boosting security of supply and competitiveness. Simply defining a single target for CO₂ emissions would, in our opinion, not be sufficient in order to deal with this ambitious and comprehensive challenge. Binding intermediary targets should only be defined after a detailed analysis of the impacts on economic efficiency, affordability, sustainability and competitiveness has been carried out.

Key Message 2:

The proposed changes to the emissions trading scheme (backloading and structural measures) alone are not suitable for the electricity sector in terms of obtaining the desired effect, namely that of again achieving increased reliance on low-carbon fuels such as natural gas and biomass or the extension of operating periods of high-efficiency gas-fired CHP-plants. For this purpose the prices of certificates would need to be increased more than 10 fold. For competitive and location-related reasons however, this appears unrealistic.

Key Message 3:

Renewable energies need to be brought closer to the electricity market and, in the mid term, integrated into the market. Given an appropriate environment (e.g. a model similar to the German management bonus), this would involve the direct marketing of mature technologies, including the acceptance of the associated balancing risks. In order to encourage the development of fuel-free renewable technologies (e.g. wind and PV) in the future, one-off investment grants are an alternative to the feed-in tariffs which are usually employed at present. Investment grants enable renewable energies to be relied upon more extensively at economically low costs.

Key Message 4:

Due to the prevailing circumstances (falling prices for the commodity coal, rising prices for natural gas and declining electricity prices), the overall economic situation with regard to the operation of high-efficiency, gas-fired CHP-plants is currently extremely difficult. Energy production using high-efficiency CHP has declined significantly. In order to ensure the continued use of high-efficiency CHP-plants under the circumstances prevailing at present, it is necessary to provide targeted support for a defined period of time. At the European level, these prevailing circumstances should be taken into account in the formulation of the future Environmental and Energy State Aid Guidelines 2014 - 2020¹. Under the existing guidelines, operating grants for large CHP-plants are de facto impossible.

Key Message 5:

The market situation for system-relevant conventional power stations has deteriorated steadily for a number of years meaning that even high-efficiency gas-fired CHP-plants and flexible new plants are experiencing major economic problems. For this reason, the question of the structure of the future energy market design also needs to be addressed by the Green Paper and the following debate. In addition to today's energy-only markets, the future electricity market model will also have to reward the provision of guaranteed capacity supplies.

Key Message 6:

The heating and cooling sector is responsible for 40 % of final-energy use. CHP technology, district heating and district cooling play a major role in achieving energy savings in this sector. The increased use of these technologies should be supported at the European and national levels.

Key Message 7:

The sought-after redesign of the energy and economic system must in any case take a holistic approach and therefore integrate all sectors (electricity, heat and transport) as well as taking energy infrastructure into consideration. Restricting the debate solely to the electricity sector would not be expedient.

¹ For specific details regarding the demands of Wien Energie GmbH with regard to the revision of the European Environmental and Energy State Aid Guidelines, please refer to our official statement on this issue:
http://ec.europa.eu/competition/consultations/2012_state_aid_environment/wien_energie_en.pdf

Energy and climate policy targets 2030

The three targets (Greenhouse Gas emission reduction, energy efficiency and renewable energies) can, if pursued appropriately, all play their role in limiting climate change and in boosting security of supply and competitiveness. Simply defining a single target for CO₂ emissions would, in our opinion, not be sufficient in order to deal with this ambitious and comprehensive challenge.

Focusing only on a CO₂ target would also represent a disproportionate advantage for nuclear energy, a technology we do not support. Binding intermediary targets should only be defined after a detailed analysis of the impacts on economic efficiency, affordability, sustainability and competitiveness has been carried out.

Achieving the energy and climate targets of the EU is dependent on a functional ETS, the far-reaching utilisation of potential energy efficiency increases both in the area of energy production (including the use of CHP technology) and in that of end-energy consumption, as well as on a carefully conceived system of rules and grants associated with renewables. These three perspectives must be coherent, mutually supportive, integrated and under no circumstances at odds with one another.

— We therefore regard the demand expressed by certain players for a single target, namely a single GHG target for the period until 2030, as counter-productive. This would lead to the ETS being used as the main instrument. In our opinion, effective climate protection requires interplay between CO₂ reductions, increasing energy efficiency and greater reliance on renewables.

Overlaps and even contradictory targets currently exist in terms of the 20/20/20 targets. For example, the expansion of CHP and district heating is a declared EU objective given that these technologies play a significant role in achieving the defined energy efficiency targets (cf. Energy Efficiency Directive). Contrary to CO₂-intensive individual heating systems, such as oil-fired boilers, these plants are massively disadvantaged by the ETS. From 2013, there are no longer any free allocations of certificates for electricity and lower allocations for heating. In our opinion, overlaps and contradictory targets need to be analysed and eliminated. Only a detailed analysis of past measures, interactions and impacts will enable a well targeted proposal to be developed for the period until 2030.

— High-efficiency and flexible gas-fired CHP technology combined with district heating and district cooling makes a significant contribution to the future design of the energy system in terms of

- Efficiency increases (significant primary energy savings)
- Emission reductions (e.g. CO₂, SO_x, NO_x and fine particulate matter) and
- Security of supply

Moreover, due to their flexibility, CHP plants are an important building block for the integration of volatile renewable sources of energy. High-efficiency CHP plants are the most efficient power stations with the lowest CO₂ emissions for the thermal production of electricity and also offer the option of supplying citizens with sustainable supplies of cost-efficient heating. High-efficiency gas-fired CHP plants are therefore a major success factor for achieving the energy efficiency and climate targets of the European Union. Under the current circumstances, however, the economic situation faced by gas-fired CHP plants is extremely precarious. Energy production using highly efficient CHP plants has declined significantly. In order to safeguard the ongoing use of high-efficiency CHP plants in the current environment (falling prices for the commodity coal, rising prices for natural gas and falling electricity prices), there is a clear need for targeted support for a defined period of time. Due to the lack of grants available in Austria, domestic operators of CHP plants are also disadvantaged in competition with other players in the EU energy market.

This should be taken into account in the design and implementation of the climate and energy policy at the European level. For example, the requirements of CHP definitely need to be taken into account in the

formulation of the future Environmental and Energy State Aid Guidelines 2014 - 2020². Under the existing guidelines, operating grants for large CHP plants are de facto impossible.

The target sectors in detail - renewables

Our energy system has changed radically in recent years. Several new technologies in the area of renewables have reached market maturity or are set to do so in the immediate future. In Austria and its neighbouring countries (particularly Germany), there has also been a dramatic and system-relevant increase in reliance on renewables in the electricity sector. As a result of the common pricing zone shared with Germany, market distortions have arisen which have led to efficient gas-fired CHP plants and energy storage technologies being increasingly pushed out of the market.

These changes in the energy system need to be taken into account in a future-oriented energy policy in order for energy to continue to be affordable for all citizens. Renewable energies need to be brought closer to the electricity market and, in the mid term, integrated into the market. Given an appropriate environment (e.g. a model similar to the German management bonus), this would involve the direct marketing of mature technologies, including the acceptance of the associated balancing risks. In order to encourage the development of fuel-free renewable technologies (e.g. wind and PV) in the future, one-off investment grants are an alternative to the feed-in tariffs which are usually employed at present. Investment grants enable renewable energies to be relied upon more extensively at economically low costs. On the basis of the negative experiences of other European Member States, such as Great Britain and Italy, we do not regard quota-based models to be suitable for promoting renewables.

In summary, renewables will play an even more important role in the future and therefore they will have to assume an appropriate responsibility for the functionality of the entire system. This is not the case under the current circumstances.

The expansion of renewables therefore needs to be better managed and coordinated with the expansion of networks as well as back-up and storage capacities. This necessitates efficient distribution networks and sufficient back-up capacities (gas and CHP) in order to compensate for the volatility of renewable sources of energy.

The target sectors in detail - CO₂

While defining the policy framework for the period until 2030 for the ETS, it is also necessary to take the economic situation as well as growth and employment into account. The conclusion of an international climate treaty is particularly important in order to increase effectiveness.

Contrary to the intention of the EU, Europe is currently experiencing a revival of (brown) coal-fired power stations and gas-fired (CHP) plants are pushed out of the electricity market.

To counteract this undesired trend, which can also be seen in other sectors, an increase of certificate prices in the ETS (backloading and structural reform) have been foreseen at the European level. Due to the logic behind the setting of prices in the electricity market (merit order principle), it cannot automatically be assumed that an increase in the prices of certificates will lead to a change in the production mix and, therefore, to a reduction in emissions in the electricity sector. Certificate prices would need to be increased more than 10 fold to trigger a fuel switch. For competitive and location-related reasons however, this appears unrealistic.

It can therefore be assumed that both backloading and the proposed structural reform will not lead to the increased use of low-CO₂ fuels, such as natural gas and biomass, or to an increase in the operating hours of high-efficiency gas-fired CHP plants.

As a result of their ineffectiveness, certificate price increases only lead to cost increases which, in the case of gas-fired CHP plants, culminate in further reductions in production and more limited utilisation. If further restrictions nonetheless come into effect, then compensatory measures need to be introduced for

² For specific details regarding the demands of Wien Energie GmbH with regard to the revision of the European Environmental and Energy State Aid Guidelines, please refer to our official statement on this issue:

http://ec.europa.eu/competition/consultations/2012_state_aid_environment/wien_energie_en.pdf

this technology. These could take the form of greater consideration of primary energy savings and the associated CO₂ emission reductions of CHP plants in the allocation of free certificates under the ETS. Since 2013, these plants no longer receive free certificates for electricity production (not even for CHP electricity) and a steadily decreasing allocation of certificates for heat production.

Any exclusive focus on a CO₂ target (ETS) can therefore not solve the current problem. Aspects, such as the development of renewables, their impact on electricity prices and the infrastructure, as well as the development of fuel prices (e.g. coal and gas), need to be considered holistically. It is therefore necessary to take action, in terms of market design, grant systems and efficiency requirements, in order to safeguard the policy target of sustainable, secure and cost-efficient energy supplies. In addition, both the ETS and the non-ETS sectors need to play a major role in achieving the GHG reduction target at the European and national levels.

The target sectors in detail - energy efficiency

— In order to be able to make the achievement of the extremely ambitious target of an 80 - 95% reduction in GHG emissions by 2050 socially acceptable, it is necessary to decouple economic growth from energy consumption. There is a need to tap potential energy efficiencies both in the area of energy production (including, inter alia, the use of CHP technology) and in that of end-energy consumption.

The decision as to whether an indicative or binding target for energy efficiency is defined should not be made immediately. A key basis for this decision should be the results of the national implementations of the Energy Efficiency Directive. Irrespective of this, a primary-energy perspective should be adopted since this also takes into account potential efficiency increases in the area of production.

— The heating and cooling sector is responsible for 40 % of final energy use. CHP technology, district heating and district cooling play a major role in achieving energy savings in this sector. In the future design of the energy system, these technologies therefore make a significant contribution to increasing energy efficiency, reducing as a result CO₂ emissions and bolstering the competitiveness of the European economy. Moreover, these technologies are indispensable in terms of maintaining security of supply in the areas of electricity and heating provision.

Important steps have been taken in recent years in order to increase energy efficiency in Europe. These include the Energy Efficiency Directive, the Ecodesign Directive and the Energy Performance of Buildings Directive.

Cogeneration, district heating and district cooling were identified in both the Energy Efficiency Directive and in the Energy Performance of Buildings Directive as key technologies for improving energy efficiency.

In order, as is intended by the Energy Efficiency Directive, to tap the as-yet unused potential of CHP, district heating and district cooling, there is a clear need for support due to the abovementioned difficult economic environment. The successful implementation of the Energy Efficiency Directive and safeguarding the economic and environmental policy advantages of CHP are dependent on, for example, necessary revisions being made to the Environmental and Energy State Aid Guidelines 2014 - 2020.

Design of the future energy market design

The current energy market design provides insufficient incentive for the investments which will be necessary in the future (flexible capacities, storage plants, etc.) and the commercially viable operation of system-relevant plants. The market situation of conventional power stations has been declining steadily in recent years. Even high-efficiency CHP plants and flexible new plants are experiencing major economic problems. Investments in new production and storage plants are effectively on hold. The current economic crisis is intensifying the situation by reducing demand. The number of operating hours of high-efficiency CHP plants and peak load power stations in particular is continuing to decline. The market integration of renewables is a first important step in the direction of correcting the market distortions which currently exist (refer to The target sectors in detail - renewables above).

A flexible energy mix is the key to a low CO₂ future. Consideration should therefore be given to ensuring that, in addition to the expansion of renewables, it also needs to be ensured in the market design that security of supply is guaranteed at all times. This is dependent on the economic viability of conventional

flexible production plants (e.g. gas-fired power stations, high-efficiency CHP, etc.) and hydropower in the long term.

In addition and against the backdrop of the market situation described above, discussion is growing of the increasing need to modify the existing energy market design in order to enable production plants to be operated economically efficiently and new plants built so as to safeguard security of supply.

Wien Energie GmbH is of the opinion that, in addition to the energy-only markets, the future electricity market model also needs to appropriately reward the provision of reliable energy supplies. Only if investment certainty exists will the energy sector enter into capital intensive and long-term investments. The current situation, with its distorted energy market system, does not generate any incentives for investment and innovation beyond the existing support schemes and therefore does not stimulate the economy.

The first bottlenecks can already be seen in Germany. As a result, capacity mechanisms are being prepared here and in other Member States. All capacity mechanisms must essentially not discriminate against foreign-based plants. These rules should also be designed to be technology-neutral and safeguard access for existing plants. Capacity mechanisms must take into account the flexibility of power stations as well as offering an incentive for low-CO₂ production. From an economic perspective, capacity mechanisms should safeguard the utilisation and maintenance of existing plants rather than encouraging the building of new power stations.

Cost-efficient achievement of the energy and climate policy targets by means of holistic and systematic solutions

In order to cost-efficiently achieve the energy and climate policy targets it is vital to take a holistic approach to transform the energy and economic system. For this reason, all sectors (electricity, heat, and transport) need to be integrated and the energy-related infrastructure also taken into account. Consequently, restricting the debate solely to the electricity sector would not be expedient.

As already mentioned above (refer to The target sectors in detail - energy efficiency), the district heating and cooling sector is responsible for 40 % of final energy use. By tapping the synergies of this sector with the electricity sector, the supply of district heating and district cooling on the basis of the heat generated by CHP plants makes a significant contribution to increasing energy efficiency. This reduces CO₂ emissions and Europe's dependence on energy imports. The integration of other sectors, e.g. feed-in heat from thermal waste incineration, makes it possible to increase efficiency even further. This reduces the need for fuel and, as a result, the CO₂ emissions of the entire energy and economic system. Systematic solutions such as these also need to be taken into account when defining specific regulatory action. For example, an energy efficiency obligation system which focusses exclusively on end energy disadvantages efficiency-related progress made in the area of energy generation. A primary-energy perspective can serve here as a potential solution given that both savings in the area of production and consumption are taken into account.

The transport sector should also be increasingly considered during the transition to a low-CO₂ energy and economic system. The transport sector is responsible for around 25% of all GHG emissions in Europe. Intelligent mobility concepts can significantly reduce CO₂ emissions. Due to their higher efficiency rating and lower average energy consumption, e-vehicles offer an opportunity to reduce emissions, particularly in comparison to vehicles with combustion engines.

We kindly request that the above concerns are duly taken into account. Please do not hesitate to contact us if you have any queries.

Yours sincerely

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