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Re Long-term policy on gas composition

Dear Speaker,

Our reference
ETM/EM / 12003092

Annexe(e)
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This letter sets out the cabinet's policy on the long-term change to the composition of low calorific gas that is distributed via the public grid. I announced this to your House in a letter (House documents 29 023 no. 83). I will advise your House about the developments relating to the market for high calorific gas and my policy on this in the near future.

Most gas users in the Netherlands, including all households, use low calorific gas. This can be gas from the Groningen field or converted high calorific gas from the small fields. The declining production from the small fields means that increasing quantities of foreign gas are needed for the supply of low calorific gas. This foreign gas can have a different composition than the gas from the small fields. This means that the composition of the low calorific gas will change.

The composition of low calorific gas will remain unchanged for at least the next ten years. I have been able to reach agreement with the national grid operator on this point. I informed your House about this agreement previously in the house document cited above. I have formalised this agreement by a ministerial decree (House document 29 023 D / no. 110). In this decree I fixed two parameters that are essential for safety at their current levels: the Wobbe index and the higher hydrocarbons content.

Despite this agreement, it is now necessary to outline policy for the period that follows. Gas users have asked for clarity concerning the gas composition so that they can prepare for this change. By making a timely start on modifying equipment and replacing appliances with appliances which can definitely cope with the new gases, the installed base will slowly but surely become suitable for handling all the expected gas compositions.

I am aware of the fact that it is not possible to stipulate all the details of gas management in the distant future at this point. The distant future cannot be predicted and planned with sufficient accuracy for that. But it is possible to implement a number of inexpensive or cost-free measures now, which will aid an easier switch to a broader gas composition in due course.

Human safety is the key determinant in my policy. It is also my aim to prevent or limit as far as possible any costs and burdens for consumers. The security of energy supply and delivery must also remain safeguarded. Finally I want to keep the social costs of the switch to a broader gas composition as low as possible.

Towards this end I am working on three additional measures: (1) I am stipulating what the gas composition will be after the transition, (2) new gas appliances which are sold must be able to cope with the future gas composition and (3) I am striving to extend the transition period so that it becomes longer than ten years.

1) Stipulating gas composition

By stipulating the future gas composition gas users and manufacturers of gas equipment will know for which gas compositions they need to prepare. Many interested parties have asked for clarity. I am providing that now. In order to reach a well-considered composition I have communicated extensively with all interested parties. In addition to an extensive consultation meeting, I have also conducted an internet consultation followed by a number of individual discussions with the industry organisations of operators, suppliers and manufacturers of gas equipment amongst others. Despite the variety of interests and parties involved I have been able to reach a sound compromise for the gas composition with the interested parties. I have been supported by Kiwa and KEMA in this process.

In the appendix I have described the future gas composition in detail, together with the reasoning underlying the choices.

Higher hydrocarbons content

The most significant change is that low calorific gas will be able to contain a higher level of higher hydrocarbons. GTS has indicated that following conversion to pseudo-G gas, the gases which have reached North-West Europe to date have a maximum higher hydrocarbons content of 8.1% propane equivalent. Linked to this is the fact that the methane number can drop.

Various parties have pointed out that it is cost-effective to extract the higher hydrocarbons from foreign import streams, called 'stripping', as a result of which a change in the gas composition can be avoided. My position on stripping remains unchanged (House document 29 023 no. 84 of 18 April 2011): a network operator cannot strip gas since it cannot deliver the gas presented for transport in two separate fractions, on its own. However, I encourage private parties to investigate the business case for stripping the foreign gas at the import points of the Dutch network.

Wobbe index

The most important parameter for gas composition is the Wobbe index. If users are preparing for a different gas, it also makes sense to maintain a broader Wobbe index here. No party anticipates a problem with a Wobbe index with a total bandwidth of 4%. The current bandwidth is around 2%. If all users can cope with this broader bandwidth in due course, the upper limit of the Wobbe band can then be raised. This will reduce the cost of quality conversion that is borne by the network users. However, for the time being there are a lot of gas appliances in use which cannot be guaranteed to be able to handle a broader Wobbe bandwidth. For this reason the current upper limit on the Wobbe bandwidth will be maintained until the installed population of consumers' appliances can cope with a higher limit.

Carbon dioxide (CO₂) and hydrogen (H₂) as a result of renewable gases

I would like to include renewable gases in the future gas supply as much as possible. For this reason, gas in the public networks will be able to contain a relatively high level of 10.5% CO₂ in the future. This creates more room for green gas from fermentation. Gasification gas, a form of renewable gas, can be used to produce synthetic natural gas which can be used in the public gas supply. This may contain a small percentage of hydrogen. That is why the future composition of low calorific gas includes a maximum of 0.5% hydrogen. Furthermore, future energy technologies may make it desirable to allow hydrogen in the public gas networks. However, it is currently not certain whether there will be a need to feed hydrogen into the public gas network in higher percentages. This depends on technical developments and financial aspects. No higher hydrogen content in the future gas composition is being specified in advance of such developments. If there are grounds in the future for considering higher hydrogen percentages in the gas system, which will probably only be in the regional networks, there will need to be consultation with the various sectors about the possibilities and the consequences of doing so.

2) Making new gas appliances "future proof"

Gas appliances must be able to handle the low calorific gas which will be distributed after the transition period. Because gas appliances often have a long lifespan, all new appliances sold must be able to cope with the future low calorific gas.

It is also sensible to require that these appliances can easily be switched to a setting for using high calorific gas. After all, low calorific gas only comes from the Groningen field. As a result it might be found to be desirable in the distant future to switch to the high calorific gas that is generally used internationally. This switch is so far in the future that speculating about the details of this seems pointless. But when a gas consumer buys a new appliance, they can buy an appliance without additional cost that can also be converted to the use of high calorific gas. In parts of Germany and Belgium this type of appliance has been compulsory for some time in anticipation of the switch from low to high calorific gas.

Most gas equipment, including all consumer appliances, are covered by the European Gas Appliances Directive (2009/142/EC). Under the Gas Appliances Directive changing gas compositions must be notified. The Netherlands will do this for the new gas composition. Within a short term only appliances that can cope with this notified gas composition will be allowed to be sold in the Netherlands.

A number of applicable categories have been defined in Europe in connection with the Gas Appliances Directive. Hence the category I_{2L} is currently prescribed in the Netherlands. An assessment will be carried out in consultation with the relevant sector as to whether a specific appliance category needs to be defined for the anticipated low calorific gas, specifically with a relatively low Wobbe index and a higher level of higher hydrocarbons. There is currently no appliance category for such a gas.

A number of existing European appliance categories are, incidentally, expected to meet the requirements for the safe consumption of the low and high calorific gases to be notified, but appliances in these categories are relatively complex in technical terms and therefore more expensive than an appliance that is specifically tailored to the low calorific gas expected in the Netherlands.

As described above, the appliances are expected to have a high calorific setting as well. Assuming that this high calorific gas will have the same composition as the neighbouring countries, there is an existing appliance category for this gas composition.

3) Extension of the period in which the gas composition remains unchanged
I am seeking to agree with GTS, GasTerra and NAM that these parties will be able to extend the ten year period during which the composition of the gas remains unchanged by working together. In the context of the Edgar (Energy Delta Gas Research) programme I have commissioned a study to be carried out in conjunction with the parties concerned into the possibilities for such an extension. An extension offers the Dutch consumer the best opportunity to replace their current gas appliances with future-proof appliances through the normal replacement market. This is a challenge, since it relates to gas management in an open and liberalised market in the distant future. I expect to be able to complete this study in the spring and be able to present it to your House with a policy letter.

In summary, these measures result in the following outlook for consumers.

I have been able to guarantee that the current gas composition will remain unchanged for at least another ten years. Following this transitional period, the gas composition will become broader than it currently is. I am striving to ensure that consumers can buy gas appliances which are equipped for all future gas as soon as possible. The normal replacement cycle for gas appliances will then prepare the consumers' appliance stock for the future gas composition. The moment will then arrive when the broader gas composition is actually distributed. This will be in ten years' time at the earliest. In due course there will have to be an investigation as to whether all appliances in the distribution area concerned can cope with the new gas. I, together with the parties concerned, will thereby strive to ensure that the costs and burdens for the consumer are minimised. The later the first distribution of the broader gas composition takes place, the larger the proportion of the consumers' appliance stock which will have been replaced under the normal replacement cycle. That is why I am now having a study carried out into whether the ten year period can be extended and what measures are required for this. All my measures are therefore aimed at preventing or minimising the costs and burden for consumers.

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Minister of Economic Affairs, Agriculture and Innovation