

Number	Party	Consultation reaction	Consultation reaction (translated for convenience)	Response
1.1	Uniper Energy	We see the assumptions, especially related to the H-gas demand and supply, made by GTS and the approach to the Groningen production for the gas year 2023/2024 as reasonable and reliable at this point in time, especially in view of the fact that this tight supply situation is an absolute novelty for the entire gas industry.		Most of our assumptions are in line with the results of the simulations done for the EntsoG Winter Supply Outlook or based on recent realisations of cross-border flows. Based on these sources we try to incorporate realistic planning assumptions in the scenarios.
1.2		We also support GTS's suggestion in its letter of 16 September 2022 to the state secretary of mining to refrain from closing some further production clusters in April 2023, especially against the background of supply security in the gas year 2023/2024 and in order to be able to take sufficient precautions in the summer of 2023 for the gas year 2023/2024.		GTS advises the State Secretary to keep all production locations of the Groningen field operational, this gas year (2022/2023) and the following (2023/2024).
2.1	Bundesnetzagentur(BNetzA)	We would like to underline the importance for continued high availability of natural gas from the Netherlands towards Germany. In this regard, production from the Groningen field as well as sufficient amounts of transport capacity to cover demand are essential also for the planning assumptions.		Being in the midst of the conversion programme with households in H- as well as L-gas, a high availability of natural gas is very important. GTS considers the realised cross-border flows and hence takes into account the currently available transport capacities, as agreed with neighbouring TSOs.
3.1	Nederlandse Aardolie Maatschappij (NAM)	Het valt de NAM op dat u voor het gasjaar 2023-2024 nog steeds uitgaat van de beschikbaarheid van het Groningenveld om de leveringszekerheid in Nederland en in het gehele L-gas gebied te borgen. Echter is de noodzaak van het beschikbaar houden van het Groningenveld nu niet meer gebaseerd op de L-gas leveringszekerheid normering maar lijkt het te gaan om het gehele H- én L-gas gebied.	The NAM has noticed that for the gas year 2023/2024 you still assume the availability of the Groningen field to guarantee the security of supply in the Netherlands and the entire L-gas area. However, the need to keep the Groningen field available is no longer based on the L-gas security of supply standard but seems to concern the entire H- and L-gas area.	In the explanatory memorandum of the law "Never more than necessary" ¹ section 2.3.1 it is stated that production from the Groningen field is essential for the security of supply in the Netherlands, parts of Belgium, Germany and France. And as stated in section 2.1 of the same explanatory memorandum, 'security of supply means that the end consumers of gas are supplied at the right time in the right quality (low or high calorific) and in the required

¹ Memorie van toelichting bij het wetsvoorstel Wijziging van de Gaswet en van de Mijnbouwwet betreffende het minimaliseren van de gaswinning uit het Groningenveld

				quantity, even when demand is high'. Based on these statements, GTS has to consider the availability of H-gas as well as L-gas, now that the availability of sufficient H-gas is not certain.
3.2		NAM neemt aan dat GTS – net als in de voorafgaande jaren en conform de gaswet – in haar advies aan de Staatssecretaris van EZK zal uitgaan van de zogeheten Infrastructuurnorm conform de Europese verordening ‘Gasleveringszekerheid’.	NAM assumes that GTS – just as in previous years and in accordance with the Gas Act – will base its advice to the State Secretary for Economic Affairs and Climate Policy on the so-called Infrastructure Standard in accordance with the European Regulation ‘Security of Gas Supply’. This regulation is based on the so-called N-1 formula.	GTS advises the State Secretary of Mining on the minimal needed Groningen capacity and volume that is necessary for the security of supply, as required by law. We still use the so-called Infrastructuurnorm for our advice (Verordening (EU) 2017/1938, artikel 5).
4.1	GasTerra	Een belangrijk verschil met de planningsuitgangspunten van voorgaande jaren is dat GTS niet meer aanneemt dat er voldoende H-gas is voor de H-gas markt én de verrijking en conversie van de L-gas markt. Wat opvalt is dat Groningen in GJ 23/24 de sluitpost van de H-gas én de G-gas balans is, tot nu toe was dat alleen voor de G-gas balans. Wij vinden dat de gevolgen van deze keuze inzichtelijk gemaakt moet worden in de GTS rapportage in vergelijking met de huidige methodiek.	An important difference with the planning assumptions of previous years is that GTS no longer assumes that there is sufficient H-gas for the H-gas market and the enrichment and conversion of the L-gas market. What is striking is that GY 2023/2024 the Groningen field is the closing post of the H- and the G-gas balance, until now that was only for the G-gas balance. We believe that the consequences of this choice should be made transparent in the GTS report compared to the current method.	In our previous advices, Groningen production was also the closing post of the H- and G-gas balance, so in the model nothing has changed in the way the field is deployed. We have never explicitly published the H-gas balance since we assumed that there was enough H-gas available. For gas year 2023/2024 we take the H-gas balance into account, but in the advice we also state the consequences if an abundance of H-gas were available in gas year 2023/2024.
4.2		Voor een situatie met H-gas tekorten is het inzetten van Groningen productie één van de mogelijke oplossingen. Daarnaast zijn er alternatieven waarbij andere middelen ingezet worden en/of maatregelen worden genomen om de afzet te verminderen, bijvoorbeeld de H-gas bergen, minder export en/of inzet van de H-gas/G-gas cavernes. Kan GTS inzichtelijk maken wat de alternatieven zijn? Hoe dit gerealiseerd kan worden en wat de impact is?	For a situation with H-gas shortages, the use of Groningen production is one of the possible solutions. In addition, there are alternatives in which other resources are used and/or measures are taken to reduce sales, for example the H-gas storage facilities, less export and/or the use of the H-gas/G-gas caverns. Can GTS provide insight into the alternatives? How can this be achieved and what is the impact?	For the estimate of the required Groningen capacity and volumes, we assume that Groningen is the closing post of the balance. The advice mentions alternatives such as demand reduction due to high prices or due to (voluntary) shut down. Regarding the required yearly volume, demand reduction of at least 20% is necessary for the minimum flow and other sources to be sufficient under the assumed conditions. In case the demand cannot be met, increased production from the Groningen field (on top of the minimum flow and back-up volume) is only possible after a

				new decision on the allowed production is taken by the Ministry of Economic Affairs and Climate, taking into account and possibly also choosing other measures such as further demand reduction.
4.3		In de presentatie van GTS zijn de uitgangspunten voor de L-gas cavernes bij Epe niet vermeld. Kan GTS inzichtelijk maken hoeveel Epe cavernes in bedrijf zijn in GJ23/24?	The assumptions regarding the L-gas caverns at Epe are not stated in the presentation by GTS. Can GTS provide insight into how many Epe caverns are in operation in GJ23/24?	In all scenarios we assume that all three caverns at Epe are available in gas year 2023/2024.
4.4		GTS geeft aan scenario analyses te gaan uitvoeren om de gevoeligheid van afwijkingen op uitgangspunten te toetsen, naast de genoemde gevoeligheden willen wij graag de volgende gevoeligheden meenemen: <ol style="list-style-type: none">1. sluiting van Groningen op 1 oktober 20232. beperkte in plaats van maximale export naar Duitsland in de 'peak demand' situatie3. extra afname van het segment centrales door een hogere elektriciteitsexport naar Duitsland en België	GTS indicates that it will carry out scenario analyses to test the sensitivity of deviations from planning assumptions. In addition to the aforementioned sensitivities, we would like to include the following sensitivities: <ol style="list-style-type: none">1. closure of Groningen on October 1, 20232. limited instead of maximum export to Germany in the peak demand situation3. additional decrease in the power stations segment due to higher electricity exports to Germany and Belgium	Also in response to this consultation reaction, we have considered the following scenarios: <ul style="list-style-type: none">• Reduced H-gas export to Germany• Reduced L-gas demand from Germany, Belgium and France• Additional gas demand from the power station segment (due to higher electricity exports to Germany and Belgium)
5.1	VEMW	De verstoring van de Russische bevoorrading creëert een ongekende nieuwe situatie in de gaswereld. Zo zal er rekening gehouden moeten worden met uitval van aanvoerroutes, zoals de Noorse pijpleidingen, de Interconnector VK-BEL, LNG, e.d.	The disruption of Russian supply is creating an unprecedented new situation in the gas world. For example, the failure of supply routes, such as the Norwegian pipelines, the VK-BEL Interconnector, LNG, etc., will have to be taken into account.	With regard to the required Groningen capacity and volume for gas year 2023/2024 several scenarios take into account a failure of a H-gas supply route, namely a 30% reduction of LNG (related) imports. Other potential disruptions have a less detrimental impact.
5.2		Ten aanzien van de ondergrondse gasbergingen (UGS) is het vooralsnog verstandig dat de ingezette maatregel om de gasbergingen te vullen tot een niveau van minimaal 90 procent voort te zetten, waarbij wij aanbevelen de in 2022 genomen maatregelen te evalueren t.b.v. eventuele bijstelling, onder meer om een ongewenste prijsopdrijving te voorkomen	With regard to the underground gas storage facilities (UGS), it is still sensible for the time being to continue the measure taken to fill the gas storage facilities to a level of at least 90 percent, whereby we recommend that the measures taken in 2022 be evaluated for possible adjustments, including to prevent unwanted price increases	Our model has a volume-neutral usage of the storages, where we assume that these are completely full at the start of the gas year. In some scenarios this volume is needed for the security of supply, therefore GTS advises to fill the storage sufficiently during the summer. The implementation and evaluation of measures to

				fill storages sufficiently is the responsibility of the Ministry of Economic Affairs and Climate.
5.3		De KEV gaat terecht uit van een afname van het aardgasverbruik door de verduurzaming van de industrie, echter een overgroot deel van de afname is niet een gevolg van structurele energiebesparing maar van afschakelen van productie in de industrie. Het 1:1 overnemen van de PBL aannames kan dan ook tot onnodige risico's m.b.t. de leveringszekerheid leiden.	The KEV rightly assumes a decrease in natural gas consumption due to the sustainability of the industry, but a major part of the decrease is not a result of structural energy savings, but of shutting down production in industry. Adopting the PBL assumptions 1:1 can therefore lead to unnecessary risks with regard to security of supply.	KEV assumes a decline in the gas demand, but this reduction is less than the realisations nowadays show. In particular for the industry KEV mentions that industries are assumed to operate at a 'normal' level within a few years, no specific mentions for gas year 2023/2024.
5.4		Daarnaast vraagt VEMW zich af hoe GTS aankijkt tegen de maatregelen die genomen worden in het Beschermd- en Herstelplan gas (BH-G) t.a.v. de winning van het Groningengas. Wanneer bedrijven eerst moeten afschakelen voor er gas gewonnen wordt heeft dit een andere uitwerking op de totale vraag dan wanneer de leveringszekerheid eerst gewaarborgd wordt met Groningengas.	In addition, VEMW wonders how GTS views the measures taken in the Gas Protection and Recovery Plan (BH-G) with regard to the extraction of Groningen gas. When companies first have to switch off before gas is extracted, this has a different effect on total demand than when security of supply is first guaranteed with Groningen gas.	In our advice we assume that the entire demand (as we estimate it to be) must be filled with existing means, and we use the Groningen field as closing post. Certain steps of the BH-G-plan, including the (voluntary) shutdown of industries, will lead to a demand reduction and possible less production from the Groningen field. However, in the scenarios we assume normal market functioning in the gas market, whereas with the BH-G-plan there is an emergency situation, and the responsibility for taking measures lies with the Ministry of Economic Affairs and Climate.
5.5		Bij de aannames is niet duidelijk vermeld of eerst de BH-G stappen volledig uitgevoerd moet worden voordat er vanuit Groningen gas gewonnen gaat worden.	It is not clearly stated in the assumptions whether the BH-G steps must first be fully completed before gas is extracted from Groningen.	See the answer above in 5.4 as well as our reaction in 4.2.
5.6		GTS rekent met de extremen van een koude winterdag die eens in de 20 jaar voorkomt (-15.5 °C) i.c.m. een redelijke vraag naar L-gas vanuit België, Duitsland en Frankrijk, maximale export naar Duitsland en geen import uit het VK, België en verminderde import uit Noorwegen. Hier tegenover staat dat GTS ook rekent met een scenario zonder export naar België en het VK. Dat roept bij VEMW vraagtekens op m.b.t. de	GTS calculates with the extremes of a cold winter day that occurs once every 20 years (-15.5 °C) i.c.m. a reasonable demand for L-gas from Belgium, Germany and France, maximum exports to Germany and no imports from the UK, Belgium and reduced imports from Norway. On the other hand, GTS also calculates with a scenario without export to Belgium and the UK. This raises questions for VEMW about	Partly in response to this consultation reaction and based on additional documentation, we assume a (limited) flow to the UK at the time of peak demand. However, at peak demand, we still do not expect H-gas to be exported to Belgium, except for areas that can only be supplied by the Netherlands.

		<p>coherentie van dit scenario. Extreme koude die eens in de 20 jaar plaatsvinden in een grote regio in Europa. De vraag is dus of de verminderde import van L-gas vanuit de buurlanden dan van toepassing is. [...] Het lijkt VEMW niet aannemelijk dat op een dergelijk moment er geen gastransport is van of naar zowel België en het VK.</p>	<p>the coherence of this scenario. Extreme cold that occurs once every 20 years in a large region in Europe. The question is therefore whether the reduced import of L-gas from neighbouring countries then applies. [...] It does not seem plausible to VEMW that at such a moment there is no gas transport from or to both Belgium and the UK.</p>	
5.7		<p>Ten aanzien van de scenario's wordt aangegeven dat zij getest worden op de volgende punten: [...]</p> <ul style="list-style-type: none"> • Een 'non-neutral' gebruik van de gasbergingen <p>Ten eerste vraagt VEMW zich af wat non-neutral betekent voor de gasbergingen.</p>	<p>With regard to the scenarios, it is indicated that they are tested on the following points: [...]</p> <ul style="list-style-type: none"> • A 'non-neutral' use of the gas storage facilities <p>Firstly, VEMW wonders what non-neutral means for the gas storage facilities.</p>	<p>In principle, we model based on a volume-neutral use of the storage facilities: what is produced during the winter is also injected again in the summer. Scenarios are conceivable in which the Groningen field remains open at minimum flow and injection of the storage facilities leads to (the only) additional Groningen production. In that case one could choose to not fill the storages with the amount produced in the winter in order to minimize Groningen production in that gas year and (partly) shift the (risk) of additional Groningen production to the next gas year. If this choice is made, it must be considered whether the demand in the following winter can be met with storages filled at a lower level.</p>
5.8		<p>Ten tweede raadt VEMW aan de lange termijn leveringszekerheid mee te nemen in deze scenario's. GTS geeft zelf aan dat er problemen kunnen ontstaan met de vulling van de gasbergingen en de lange termijn leveringszekerheid wanneer er leveringsproblemen ontstaan en er deze winter te veel ontrokken wordt uit de gasbergingen, deze zorg is ook benoemd door de IEA in het rapport "Never too early to prepare for next winter". Het lijkt VEMW dan ook zeer verstandig verder vooruit te kijken dan alleen naar de komende 2</p>	<p>Secondly, VEMW recommends including long-term security of supply in these scenarios. GTS itself indicates that problems can arise with the filling of the gas storage facilities and the long-term security of supply if supply problems arise and too much is extracted from the gas storage facilities this winter. This concern has also been mentioned by the IEA in the report "Never too early to prepare for next winter". It therefore seems very sensible to VEMW to look further ahead than just to the next 2 winters, so that the Netherlands can ensure that it meets the</p>	<p>GTS fully agrees that a stable regulatory framework that ensures the filling of gas storages is of utmost importance. It is the task of the Ministry of Economic Affairs and Climate to provide that framework. Our advice is based on the assumption that storages are sufficiently filled at the beginning of the gas year.</p> <p>GTS advises the State Security on the required Groningen capacity and volume for the security of supply. The field itself, but also the gas storages play an essential role in the security of</p>

		winters zodat Nederland zich er van kan verzekeren dat zij voldoet aan de vulverplichting van de gasbergingen en de leveringszekerheid kan bieden die noodzakelijk is.	filling obligation of the gas storage facilities and can offer the necessary security of supply.	supply. GTS provides some information on the expected developments, but due to the large uncertainties in the planning assumptions, we focus in our advice on the coming gas year, as a decision on the necessary capacity and volume has to be taken before the start of the gas year. We will monitor the situation closely and when a more stable situation is reached, we aim to give a longer term outlook.
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