



Grand Ruling Chamber for Energy

Reference: GBK-24-02-2#4

Decision

In the administrative proceedings pursuant to section 28r(2) sentence 1 of the Energy Industry Act (EnWG) and operative part 3 sentence 3 of decision GBK-24-01-2#1

relating to the **determination proceedings for the setting of a ramp-up tariff for the hydrogen core network**

Party summoned:

RWE Generation SE, RWE Platz 3, 45141 Essen, legally represented by the Executive Board,

- party summoned -

the Grand Ruling Chamber for Energy of the Bundesnetzagentur für Elektrizität, Gas, Telekommunikation, Post und Eisenbahnen, Tulpenfeld 4, 53113 Bonn,

represented by

its Chair	Klaus Müller,
its Vice Chair	Barbie Kornelia Haller,
its Vice Chair	Dr Daniela Brönstrup,
its Vice Chair	Dr Christian Schütte,
its Vice Chair	Anne Christine Zeidler,
and its Vice Chair	Achim Zerres

decided on 14 July 2025:

1. Addressees

This determination is addressed to all hydrogen network operators operating part of the core network pursuant to section 28q EnWG.

2. Ramp-up tariff

Subject to the adjustment in line with inflation set out in operative part 3 sentence 5 of decision GBK-24-01-2#1 of 6 June 2024, the ramp-up tariff for the hydrogen core network for an uninterruptible yearly capacity product is €25.00/kWh/h/a.

3. Payment of costs

No fees are payable for the decision.

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Rationale

I. Relevant facts

1. Opening of proceedings

- 1 On 23 August 2024 the Grand Ruling Chamber for Energy opened determination proceedings [GBK-24-02-2#4] on its own initiative for setting a ramp-up tariff for the hydrogen core network.
- 2 The reason for the proceedings is that section 28r EnWG and the decision GBK-24-01-2#1 of 6 June 2024 (WANDA) require the determination of a ramp-up tariff for the hydrogen core network for the period from 2025 to 2055 in accordance with section 28q EnWG.
- 3 The background to these provisions is that, in comparison with the established regulated network sectors of electricity and gas, for the hydrogen core network in the coming years a particular situation will apply in which the network will be built up and the purchase market for the transport capacity on offer still has to be created as more and more industrial consumers gradually switch to hydrogen in the course of decarbonisation and additional downstream hydrogen infrastructure is created as and when appropriate. A network tariff that is formed according to general rules and is aimed at covering costs in the near term would cause specific problems in a situation of this nature. In the first calculation periods it is foreseeable that only an extremely small number of customers entering the market at a very early stage will use the core network. At the same time, however, the network will also be built from the outset for customers entering the market later, which will cause very high costs for investments and ongoing operation. Were these high costs to be passed on in full to the small number of network customers, this would lead to enormously high tariffs. It can be assumed that such a high tariff burden would have a prohibitive effect and make it uneconomic for potential customers to use the network. These customers would thus not enter the market. It would also seem unlikely that additional network customers who could participate in the financing of the network would enter the market in subsequent years. Since no additional customers would be expected, the network would remain permanently unattractive and it would never attain a state in which it could sustain itself economically.
- 4 To counteract this situation the ruling chamber has laid down an intertemporal cost allocation mechanism in the decision GBK-24-01-2#1 of 6 June 2024. For the initial amortisation period the ruling chamber must set a ramp-up tariff to provisionally lower the prices for capacity to a level that can still be considered marketable and does not have a deterrent effect on potential customers of the core network. As a result, however, by the very nature of this arrangement a discrepancy arises between the costs caused by the network and the revenue that can be generated from application of the ramp-up tariff vis-à-vis the customers. The concept therefore envisages that those costs that are not initially

covered by tariffs will be collected from future customers at a later date when the level of usage of the network is higher. To this end, the difference between the approved costs and the revenue generated from the ramp-up tariff is recorded in an intertemporal cost allocation account. This account corresponds economically to the amortisation account regulated by section 28r(3) sentence 2 EnWG.

5 It is to be expected that the account balance will initially grow rapidly in the first few years, given that the revenue will still be relatively low. If more customers join the network and book chargeable capacity in the course of time, this will lead to the account balance growing at a lower rate. If the market ramp-up is successful, a point will be reached in the future where the revenue generated from application of the ramp-up tariff will be sufficient to cover the network costs of the year in question, and the network will thus be in a position to sustain itself economically. This point marks the beginning of the phase when the account balance is reduced. The ramp-up tariff will continue to be retained for the time being, even though by then it will actually be above the level needed to cover the current costs in each case. The additional revenue generated in this way will then be used to reduce the balance. In this way the financing gaps from the ramp-up phase will be closed retrospectively using the tariffs from future network customers. The ramp-up tariff will remain in force until the intertemporal cost allocation account reaches a balance of zero again. This can be done either by the respective collection of tariffs or by compensation from the federal government in accordance with section 28s(1) EnWG; at the latest by the end of 2055.

6 Notification of the opening of the proceedings was given on the Bundesnetzagentur's website on 23 August 2024.

2. Expert report

7 By measure of inquiry of 6 September 2024, the ruling chamber appointed Dr Benjamin Pfluger from the Fraunhofer Research Institution for Energy Infrastructures and Geothermal Energy IEG as an expert for the analysis of the plausible demand paths for the hydrogen core network for the period from 2025 to 2055 and the relevant influencing factors as well as the resulting ramp-up tariff pathways leading to a balanced amortisation account by 2055. The expert submitted his report on these matters on 15 March 2025.

8 The report identified potential demand scenarios for hydrogen transport. It analysed possible developments in the areas of domestic electrolysis, imports (piped and by ship), industry, power stations and storage. The effects were examined, under the assumptions of the respective ramp-up scenario, on the amount of the ramp-up tariff suitable for balancing the intertemporal cost allocation account by the year 2055.

9 The scenarios are based on different short, medium and long-term developments.

- 10 The starting point is the final investment decision (FID) scenario, which (as potential customers on the entry and exit side) only takes into account projects for which an FID has already been made. Since FIDs are only available for projects in the near future, the review period is accordingly short. Under these circumstances the hydrogen core network would not be used enough for the intended balancing out and thus – due to the very short review period – the FID scenario would not be suitable as an independent ramp-up scenario.
- 11 The long-term O45-Electricity scenario modelled by the Ministry for Economic Affairs and Climate Action (BMWK), in which hydrogen plays a significant role, especially in industry and the conversion sector, is looked at from a long-term perspective. If this scenario were to unfold, Germany’s energy and climate neutrality targets would be met by 2045. According to the expert report, this would require a ramp-up tariff of €13.40/kWh/h/a to balance the intertemporal cost allocation account by 2055. A two-year delay in demand for transport capacity would require a ramp-up tariff of €14.90/kWh/h/a to balance the intertemporal cost allocation account. However, the report points out that reaching the short and medium-term intermediate targets should currently be considered somewhat ambitious and that the scenario is thus on the more optimistic side.
- 12 Scenarios that focus on short and medium-term development and fall between the two marginal scenarios, FID and O45-Electricity, are the scenarios Budget+ and Optimistic Projection. In addition to external funding already made available, Budget+ also takes into account foreseeable funding budgets in the future for certain hydrogen projects. Funding programmes that have not yet been implemented into law are also taken into account. In the Optimistic Projection scenario, the development of demand is derived from diffusion curves and reference technologies in the absence of previously-determined funding budgets. As is the case with the FID scenario, the Budget+ and Optimistic Projection scenarios do not cover the entire ramp-up phase since they aim to show realistic (though also optimistic, according to the report) short to medium-term development.
- 13 Under the reference scenario, the short and medium-term developments are linked to the long-term O45-Electricity scenario so that for each area under observation, the quantities demanded are transferred to the long-term objectives for 2035 or 2040, respectively. For this scenario, a tariff was calculated in the report ranging between €20.30 and €25.90/kWh/h/a, and a tariff between €23.30 and €29.60/kWh/h/a if demand was delayed by two years. In addition to the exclusive booking of annual capacity, these tariff ranges also take into account structural booking vacancies caused by connected customers not booking their full installed capacity and the possibility of non-yearly capacity bookings and discounts for certain entry and exit points. For this purpose contribution factors of 90%, or rather 70% and 90%, were taken into account in the report.
- 14 For details, reference is made to the expert report available in German “Hintergrundszenarien zur Festlegung des Hochlaufentgelts im Wasserstoff-Kernnetz” (Background scenarios for the setting of a

ramp-up tariff for the hydrogen core network) of 15 March 2025 by Dr Benjamin Pfluger from the Fraunhofer Research Institution for Energy Infrastructures and Geotechnologies IEG in the annex to this decision.

3. Consultation on the draft determination

- 15 The business groups concerned were given the opportunity to comment on the planned determination through publication of the draft determination on the Bundesnetzagentur's website on 26 March 2025 and in the Bundesnetzagentur's Official Gazette on 9 April 2025. At the same time, the federal state regulatory authorities were given the opportunity to comment in accordance with section 58(1) sentence 2 EnWG. Likewise, the Bundeskartellamt was given the opportunity to comment in accordance with section 58(1) sentence 2 EnWG. In parallel with the consultation procedure, an online workshop was held on 15 April 2025 at which the draft decision was discussed in detail with interested business groups and companies.
- 16 The ruling chamber received a total of 17 comments from the following institutions:
- BDEW Bundesverband der Energie- und Wasserwirtschaft e.V. (German Association of Energy and Water Industries)
 - German Chamber of Commerce and Industry (DIHK)
 - German Hydrogen Association (DVW) e.V.
 - EnBW Energie Baden-Württemberg AG
 - Hamburger Energienetze GmbH
 - Hanseatic Hydrogen GmbH
 - MorGen Energy AG
 - Niedersächsisches Ministerium für Umwelt, Energie und Klimaschutz (Ministry of Environment, Energy and Climate Protection of the State of Lower Saxony)
 - RWE Generation SE
 - Sächsisches Staatsministerium für Wirtschaft, Arbeit, Verkehr und Klimaschutz (Ministry of Economics, Labour, Transport and Climate Protection of the Free State of Saxony)
 - Salzgitter AG
 - Statkraft Markets GmbH
 - Verband der Industriellen Energie- und Kraftwirtschaft e.V. (VIK)/ Verband der Chemischen Industrie e.V. (VCI)
 - Verband kommunaler Unternehmen e.V. (German Association of Local Public Utilities)

Vereinigung der Fernleitungsnetzbetreiber Gas e.V. (FNB Gas)

Windland Energieerzeugungs GmbH

Wirtschaftsvereinigung Stahl

- 17 The expert's report was deemed by many of those participating in the consultation to be clear and convincing. However, a regular review of the assumptions as part of the review mechanism was called for due to the significant uncertainty. Some comments criticised individual aspects of the report. For instance, the expansion of the core network was considered too large and needed to be limited to the infrastructure actually required. Foreseeable delays to the expansion up until 2037 had not been taken into consideration. Furthermore, it was thought that the possibility of unforeseen construction delays ought also to be taken into account as construction projects in Germany were rarely completed on time. Future demand for hydrogen was underestimated as more hydrogen would be needed due to delays in the ramp-up of heat pumps and district heating. It was not clear why only the Federal Government's O45-Electricity scenario had been taken into account, but not the O45-H2 scenario. Moreover, only demand from certain industries had been considered, while network expansion and the development of demand outside the core network had not been, despite the fact that a large share of all industrial customers is supplied via the distribution networks. Demand for RFNBO hydrogen to meet the 42% target in accordance with the Renewable Energy Directive III (RED III) was also not taken into consideration. The amount of the assumed contribution factors attracted some criticism for underestimating the scale of the structural bookings. One comment stated that it was unrealistic to expect core network usage already to reach 80% in the initial phase. Another criticised the systematic underrating of the role of import terminals. In addition, the avoidance behaviour of customers due to excessive tariffs was found not to have been taken into account. Some comments stated that the cost figures and quantity forecasts used had not been disclosed.
- 18 A substantial number of market participants criticised the ramp-up tariff proposed by the ruling chamber of €25/kWh/h/a as too high. It was pointed out that the initial market participants needed the least expensive transport conditions possible in order to make the investments necessary for getting the ramp-up of the hydrogen sector up and running in the first place. A tariff of €25/kWh/h/a was not economically feasible and would prove prohibitive. The procurement costs for the raw material hydrogen were in any case already very high and should not be increased any further. Moreover, the tariff was incurred on the entry and the exit side and, as a result, was imposed twice – or even four times when using storage. In addition, the tariffs for network levels outside the core network needed to be taken into account. The transport costs would therefore account for a disproportionately high share of the total operating expenses of hydrogen consumers, with one comment estimating this share at 15-20%. Many comments recommended taking as a basis the lower end of the tariff ranges given in the report in order to support the early market ramp-up. Another suggested a tariff of €15/kWh/h/a.

Many comments drew comparisons with the network tariffs in the natural gas system and argued that these ought not to be significantly exceeded in order to ensure a sufficient incentive to change energy source. However, the tariff for the core network was around four times as much. One comment also drew comparisons with the transport of ammonia, with which use of the core network also had to compete. Some market participants recommended using funds from the federal budget or from the special infrastructure fund to reduce costs. Another one voiced the view that costs from network infrastructures in the exclusive economic zone should not be taken into consideration as, according to section 28q EnWG, the core network was limited to German territory.

- 19 By contrast, some comments considered the amount of the tariff to be reasonable. This level was thought at least necessary to balance the amortisation account by 2055. They stressed that natural gas and hydrogen were completely different and incomparable markets. Applying the natural gas regulation to the hydrogen core network would result in tariffs that would have to be at least ten times higher in order to ensure cost recovery.
- 20 There was some discussion of the modifications to the system for tariff setting. For instance, it was proposed that a tariff plan be set out that would initially start low and rises more sharply later (eg in the 2040s). An extension of the amortisation period was also called for in order to reduce the tariffs. One comment suggested making the amount of the tariffs dependent on the means of producing hydrogen and assigning lower tariffs to “green” hydrogen than to other types. Another comment proposed a distance-based unit price that would amount to 2.5 cents per MWh and kilometre transport route, with an absolute upper limit of €25/(kW*a). The unit €/kWh/h/a was rejected by this comment as mathematically nonsensical; moreover, stating the tariff in ct/kWh was also preferable in order to ensure comparability with other energy prices.
- 21 A substantial number of comments underlined that the review mechanism to be conducted every three years should as far as possible not cause tariffs to fluctuate. The ramp-up tariff should only be adjusted if the amortisation account were to be seriously put at risk. For want of a liquid market for hydrogen, supply contracts were being concluded in the long term for the duration of the depreciation periods of generating installations, which means that market participants required planning certainty. By contrast, other comments clearly assumed very regular adjustments. For example, it was suggested that the initial ramp-up tariff be set very low because according to the findings of the expert report the tariff amount would in any case not significantly affect the amortisation account in the first three years. One comment requested indicative scenarios for the tariff trend beyond the first three years. Another suggested a price cap for the first ten years.
- 22 There was some criticism alleging that the interplay of the present proceedings with procedure GBK-24-01-2#2 supplementing decision GBK-24-01-2#1 (WANDA) was unclear. A simultaneous issue of both decisions was requested in order to avoid generating lock-in effects precluding any further

changes to the key elements consulted in procedure GBK-24-01-2#2 that deviate from the assumptions made when determining the ramp-up tariff.

4. Next steps

23 The ruling chamber communicated its draft decision pursuant to Article 7(8) subparagraph 2 sentences 1 and 2 of Regulation (EU) 2024/1789, including the opportunity to comment, to the regulatory authorities of the Member States bordering Germany and to the Agency for the Cooperation of Energy Regulators (ACER) on 20 June 2025.

24 In accordance with section 60a EnWG the Committee of representatives of the federal state regulatory authorities was also formally notified on 26 June 2025.

25 The party summoned was summoned at its request of 3 June 2025 in a decision of 11 July 2025.

26 With respect to the details of the proceedings, reference is made to the proceedings file.

II. Legal assessment

1. Formal legality

27 The determination is formally lawful.

2. Competence

28 The decisions taken in this determination fall under the responsibility of the Bundesnetzagentur as provided for by section 28r(2) sentence 1 EnWG and operative part 3 sentence 3 of decision GBK-24-01-2#1.

29 The responsibility of the Grand Ruling Chamber derives from section 59(3) sentence 3 in conjunction with section 29(1) and section 28o(3) EnWG.

3. Addressees of the determination (operative part 1)

30 As set out in operative part 1 the determination is generally addressed to all operators of hydrogen networks in Germany that are part of the core network in accordance with section 28q EnWG.

4. Involvement of the federal state regulatory authorities

31 The federal state regulatory authorities have been informed about the opening of the proceedings in accordance with section 55(1) sentence 2 EnWG.

5. Enabling provision

32 The provisions of the determination are based on section 29(1) and section 28o(3) sentence 1 in conjunction with subsection (2) paras 1 and 3 and section 28r(2) sentence 1 EnWG and operative part 3 sentence 3 of decision GBK-24-01-2#1.

33 The Bundesnetzagentur will determine a ramp-up tariff in accordance with these. According to section 28r(2) sentence 2 EnWG, the ramp-up tariff is intended to ensure that the amortisation account is balanced by 31 December 2055 and to take account of the effects of the ramp-up tariff on demand for transport capacity in the hydrogen core network. Operative part 3 sentence 4 of decision GBK-24-01-2#1 provides greater specificity on the determination in that the ramp-up tariff is to be calculated in such a way that, if it remains in force unchanged while taking inflation into account in accordance with operative part 3 sentence 5 of decision GBK-24-01-2#1 (ie adjusted to general inflation assessed in the consumer price index published by the Federal Statistical Office), it is possible to balance the intertemporal cost allocation account by 31 December 2055. The intertemporal cost allocation account serves a similar regulatory purpose as the amortisation account of the financing mechanism and should always have the same balance, which is why there is no practical difference between the different points of entry.

34 However, the enabling provision for these proceedings does not include provisions concerning the tariff system in general. Key basic decisions such as the configuration of the network tariff as a fundamentally uniform capacity tariff at all entry and exit points of the core network are derived from the provisions of the Energy Industry Act (EnWG) and decision GBK-24-01-2#1 (for the rationale see in particular paragraphs 28 et seq, 38 et seq and 58 et seq of the latter) and are not the subject of these proceedings, which serve merely to implement such provisions. Comments in this regard and those concerning the amortisation period, use of federal funds and other aspects of the underlying ramp-up system must therefore be disregarded (in this context).

6. Legal requirements for the ramp-up tariff

35 More detailed information for calculating the ramp-up tariff can be found in the rationale for decision GBK-24-01-2#1. Under the decision the ruling chamber must take into account the expected development of network costs. The more costs that the network creates and the earlier that these costs arise, the greater the rate of rise in the balance held in the intertemporal cost allocation account during the ramp-up phase, in which only little revenue can be generated from a manageable number of customers, and consequently further costs arise in turn as a result of interest and compounding effects. The decision also requires the ruling chamber to estimate the level of usage of the network over the course of time. The more transport capacity is marketed, the more revenue there will be to offset the

costs and the more the rise in the account balance will be slowed, so that ultimately, if successful, it will fall again thanks to revenue surpluses and in the end the account will be balanced. The higher the ramp-up tariff is set, the sooner the costs will be balanced by revenue and the faster a balanced account will be reached, with a greater degree of certainty. At the same time, however, it is essential to anticipate the repercussions of the tariff level on the demand for capacity. The higher the ramp-up tariff, the more unattractive it becomes for potential customers to use the core network. If it is too high, it can have a negative impact on the level of network usage. In this case the effect will not be an increase in revenue but a reduction, making balancing the account and hence refinancing the network less likely. The very purpose of the intertemporal cost allocation mechanism, however, is to reduce the tariffs to a non-prohibitive level in order to facilitate financing.

36 In addition, the admissibility of non-yearly and interruptible hydrogen capacity, as determined in draft decision BK7-24-01-015 (WaKandA), as well as the provisions regarding multipliers for non-yearly hydrogen capacity, discounts for interruptible hydrogen capacity and discounts at storage points, as presented parallel to the consultation in the key elements paper on the procedure GBK-24-01-2#2, have a significant influence on the possible amount of the ramp-up tariff. When determining the ramp-up tariff under this decision, it is presumed that the multipliers and discounts will be set in the form envisaged therein. The ruling chamber believes that an individual assessment of ramp-up tariff, multipliers and discounts is not possible since there is direct interplay between their respective amounts. As at the time of this decision the procedure GBK-24-01-2#2 will still have some months to go and a prolonged delay in determining the ramp-up tariff is not advisable in view of the market requirements for clarity in this regard, the ruling chamber must conduct the best possible assessment in the present proceedings as to which tariffs it will itself apply in the procedure GBK-24-01-2#2. It will take as the basis for this the conceptual ideas that it has already presented and justified in its key elements paper. This will not constitute a preliminary decision concerning these provisions. Should the configuration of the tariff system prove different from that currently envisaged, this can be taken into account in the review mechanism for the ramp-up tariff as long as the forecast effects on the intertemporal cost allocation account are sufficiently significant.

37 The ramp-up tariff must be configured in such a way that, according to the insights available at the time of the decision, it will be suitable from the outset for balancing the intertemporal cost allocation account at a constant level (adjusted for inflation) by the year 2055. Regular adjustments as part of the review mechanism conducted every three years are not envisaged at least in principle. While the review mechanism is intended to guarantee continuous monitoring of the intertemporal cost allocation account, it will only actually result in tariff adjustments in the event of critically undesirable developments (see decision GBK-24-01-2#1, para 80). There is therefore also no scope for the forecasts of the future development of the ramp-up tariff requested by some in the consultation

procedure. Should the ruling chamber be aware of any future need to adjust the tariff, it would have to take this into account immediately.

38 However, since there is not just one “correct” ramp-up tariff that can meet the legal requirements, the ruling chamber had to make a balanced decision on the exact amount of the tariff. When doing so, the ruling chamber had to take all aspects relevant to the decision into account and carefully weigh them up. In particular it had to consider both the interests of network customers and hydrogen consumers in the most affordable possible hydrogen transport to enable the unhindered and rapid development of a hydrogen economy, as well as the interests of the hydrogen core network operators (and, due to the Federal Republic of Germany’s obligation to pay compensation under section 28s(1) EnWG if the amortisation account is not balanced in a timely manner, ultimately the interests of the general public as well) in the safest and most reliable refinancing of the core network by 2055, which makes the development of the network possible in the first place. Also, since this decision was made based on an uncertain forecast of the development of the intertemporal cost allocation account, the decision also had a certain amount of leeway. The leeway in both instances is in fact difficult to separate but the decisions are ultimately subject to essentially the same legal requirements (see Federal Court of Justice judgment of 21 January 2014, EnVR 12/12, para 26). Therefore no differentiation is made below as to what extent the ruling chamber’s considerations serve with regard to them making it possible or likely to balance the intertemporal cost allocation account by the year 2055 and to what extent they may lead to an appropriate result within a defined permissible range; this would not be possible due to the lack of clarity of said range. The report and the following explanations show ranges for possible ramp-up tariffs that are not homogeneous with regard to their suitability for achieving the legislative objective, but instead are derived from different assumptions about the development of the ramp-up, which is why the selection of a value within the range does not mean there was only a weighing up according to appropriateness criteria, but also that there was an assessment of the likelihood that an underlying scenario variant will occur.

7. Calculating the ramp-up tariff (operative part 2)

39 Operative part 2 sets the ramp-up tariff at €25.00/kWh/h/a. The ruling chamber is of the opinion that it is suitable for meeting the aforementioned criteria.

40 According to the information currently available to the ruling chamber, taking into account the best possible forecasts regarding the likely development of the utilisation of the core network whereby the tariff remains in force unchanged and taking into account the adjustment to general inflation, the tariff is appropriate for balancing the intertemporal cost allocation account and the amortisation account by the year 2055. It is high enough to fully finance the expected costs of the core network, including interest on the amortisation account, by the target date if there is what today appears to be a realistic ramp-up of market demand up to the target date. At the same time the tariff is at a level that can be

considered marketable and is not likely to deter market participants from using the core network to an extent that prevents network operators from generating the necessary revenue.

- 41 The ruling chamber relies significantly on the expert report of Dr Benjamin Pfluger, which the chamber considers methodologically convincing and adopts as its own. The report was prepared on the basis of the expertise of various specialists from renowned scientific institutions familiar with the topic and the analyses contained therein, which were conducted for the first time at this depth of technical knowledge, reflect the latest scientific findings in accordance with section 73(1b) sentence 2 EnWG. The ruling chamber continues to uphold this assessment in the light of the various points of criticism put forward in the consultation procedure (see para 17 above for details). The ruling chamber considers that all the points addressed have been adequately taken into account and acknowledged by the expert. Where in specific cases he reaches other conclusions than individual market participants, his assumptions are sufficiently and convincingly justified in terms of content.
- 42 The ruling chamber is of the opinion that the long-term O45-Electricity scenario modelled by the BMWK and used in the expert report is not suitable in its original form as a basis for determining the ramp-up tariff. While the ruling chamber does not question Germany's energy and climate targets for climate neutrality by 2045 to be achieved in this scenario, it follows the findings of the report that the current trend does not yet meet the short and medium-term intermediate targets. To determine the ramp-up tariff, the presumed demand for transport services must, however, be as plausible as possible for each year. This applies in particular to the early years of the market ramp-up.
- 43 The ruling chamber also agrees with the report's assessment that using the FID scenario is not a suitable basis for determining the ramp-up tariff. This scenario only takes into account developments that can be regarded as certain to occur as things currently stand but does not take into account the possibility of further market developments. Such a narrow view seems too pessimistic in light of the numerous expressions of intent to build a hydrogen economy by potential market players, political actors and potential funding bodies.
- 44 By contrast, the ruling chamber considers the reference scenario presented in the expert report persuasive for the purposes of determining a ramp-up tariff because it realistically and plausibly forecasts the short and medium-term development. Furthermore, switching to the O45-Electricity scenario at a later stage also reflects Germany's long-term objective of climate neutrality.
- 45 According to the expert's analyses, the ramp-up tariff would have to be between €20.30 and €25.90 kWh/h/a under the reference scenario, with demand growing according to plan and tariff variation depending on the intensity of network use. If demand is delayed by two years, the ramp-up tariff would have to be between €23.30 and €29.60 kWh/h/a to balance the intertemporal cost allocation account by the year 2055. The ruling chamber currently has no reason to assume such a

delay, thus depending on the assumed intensity of network use, the tariff derived from the report lies in the range between €20.30 and €25.90/kWh/h/a.

46 The ruling chamber is furthermore of the opinion that a contribution factor of less than 100% can be assumed. Based on the experience of the natural gas transport network, a certain structural vacancy does not seem unusual because many network customers will not always exhaust their full connection capacity to the limit of what is possible. Also, it will likely be possible to make non-yearly capacity bookings as provided for in Ruling Chamber 7's draft consultation on the WaKandA proceedings (BK7-24-01-015). Although there are to be markups on the pro rata annual capacity tariff for non-yearly capacity products, these are unlikely to completely offset the revenue from annual capacity (see the ruling chamber's considerations consulted in parallel proceedings GBK-24-01-2#2). In addition, the revenue-reducing effects of the anticipated discounts at storage points must be taken into account. For this reason the ruling chamber uses the variant with a contribution factor of 70% for power stations (non-yearly booking) and storage facilities (non-yearly booking and discounts), and 90% for all other connected customers. On the basis of these considerations, setting the ramp-up tariff at €25.90/kWh/h/a, which according to the calculations of the expert corresponds to this intensity of use within the assumed scenario, would initially seem logical.

47 However, the ruling chamber considers it appropriate to make a slight deduction from the maximum amount. It sees this as reasonable since the capital and operating costs used in the calculation anticipate that the core network infrastructure will be set up entirely by the end of 2032. Section 28q(8) EnWG, however, already provides for a review and flexible extension of the network development period until 31 December 2037 through the network development plan if the need for the respective infrastructure persists or does not cease until later. If demand does not develop as it was originally anticipated for the approval of the core network, this would likely correlate with a respective postponement of pipeline construction projects, which is not reflected in the scenarios of the expert report. However, the reference scenario assumes precisely such a delay in demand, as it is based on a slower ramp-up of the hydrogen sector than was originally expected, at least for the first few years. If sections of the system are not built or are built later than currently planned in the core network approval, this would have a potentially huge impact on the total costs since part of the amortisation and return on equity would not become (or would not become until later) costs eligible for approval, part of the amortisation previously taken into account would fall outside of the ramp-up period until 2055, and the ongoing operating costs would not be incurred until later and may even be lower. A reduction of costs, at least of the initial costs, will also lead to a reduction of the financing costs that arise through the intertemporal cost allocation mechanism. Given the current insufficient number of FIDs, it is highly likely in the opinion of the ruling chamber that at least some components of the core network will be extended. However, a serious assessment of the impact of certain developments in

demand on the completion of some system projects, not to mention a calculation of the resulting impact on costs, is currently not possible and is therefore also not taken into account in the expert report. (For the same reason, the ruling chamber considers a two-year delay in the ramp-up of demand as a starting point to be unreasonable since such a ramp-up does not harmonise with the development of the infrastructure.) The chamber therefore applies a flat deduction based on the calculations using a regular cost trend. In the opinion of the chamber, this deduction is sufficiently noticeable to appropriately reflect the cost-reducing effects of possible construction delays. It is also not excessively high since not every delay in the development of demand can directly result in the temporary elimination of pipelines if the core network is to function, and respective developments must also be recognisable with sufficient notice in advance so that projects are actually launched with a delay.

48 The ruling chamber thus sets the ramp-up tariff at €25/kWh/h/a (adjusted for inflation). As described, it is the opinion of the chamber that this tariff, under consideration of the assessments and calculations presented in the expert report, currently appears to be high enough to balance the intertemporal cost allocation account and thus also the amortisation account by the year 2055. At the same time it is not so high as to present an excessive burden on the network customers. This is not only relevant with regard to reasonableness, but it is also a mandatory condition for the attainability of balancing the account since a prohibitively high tariff, which discourages potential customers from using the core network, would not be suitable for collecting the necessary revenue in the long term; rather it would stifle the ramp-up from the very beginning. A comparison of this ramp-up tariff with the postage stamp tariff for the gas transmission system, which is often mentioned in this context and which is significantly lower, does not work since it is a different energy source with different characteristics and uses, and it cannot be used as a standard for a new infrastructure and a new energy source. Furthermore, the tariff for transport represents only a small portion of the price of hydrogen.¹ Therefore it does not appear plausible that a network tariff of €25/kWh/h/a may be capable of significantly influencing the sustainability of hydrogen-based business models. The valid interests of market participants using the network have thus been safeguarded in the context of the circumstances enabling the financing of the core network. The ruling chamber continues to uphold this assumption notwithstanding the outcome of the consultation procedure in which a large number of market participants considered the tariff too high and some of whom even questioned the economic viability. The ruling chamber is aware that the conditions in the emerging hydrogen market are economically challenging. The expert report drawn on for its decision-making also anticipates the compelling necessity of extensive state support for hydrogen-based business models and presupposes this in its

¹ Currently it is difficult to estimate how the raw material price for green hydrogen will develop. It is currently listed on the EEX Hydrogen Index ranging between €230 and €285/MWh.

assumptions. A lower network tariff (that is no longer suitable for balancing the intertemporal cost allocation account) would also do little to change this.

III. Reference to the annex

49 The expert report available in German “Hintergrundscenarien zur Festlegung des Hochlaufentgelts im Wasserstoff-Kernnetz” (Background scenarios for the setting of a ramp-up tariff for the hydrogen core network) of 15 March 2025 by Dr Benjamin Pfluger from the Fraunhofer Research Institution for Energy Infrastructures and Geotechnologies IEG forms part of this decision.

IV. Costs (section 91 EnWG)

50 In accordance with section 91(1) sentence 3 EnWG, no fees are payable for decisions served by public notification in accordance with section 73(1a) EnWG.

V. Public notification (section 73(1a) sentence 1 EnWG)

51 Since the determination is issued to all hydrogen core network operators, the Grand Ruling Chamber for Energy, having exercised the discretion conferred upon it by section 73(1a) sentence 1 EnWG, is giving public notification of the decision. Public notification is brought about by publication in the Bundesnetzagentur’s Official Gazette of the operative part of the decision, of the notification of appellate remedies and of a brief statement that the decision in full has been published on the Bundesnetzagentur’s website (section 73(1a) sentence 2 EnWG). In accordance with section 73(1a) sentence 3 EnWG the decision is considered to have been served on the day on which two weeks have elapsed since the date of public notification in the Bundesnetzagentur’s Official Gazette.

Information on legal remedies

Appeals against this decision may be brought within one month of its service. The appeal must be submitted to the Higher Regional Court of Düsseldorf (address: Cecilienallee 3, 40474 Düsseldorf).

The appeal must be accompanied by a written statement setting out the grounds for appeal. The written statement must be provided within one month. The one-month period begins with the filing of the appeal; this deadline may be extended by the court of appeal's presiding judge upon request. The appeal and the grounds for appeal must be signed by a lawyer.

The appeal does not have suspensory effect (section 76(1) EnWG).

Chair

Vice Chair

Vice Chair

Klaus Müller

Barbie Kornelia Haller

Dr Daniela Brönstrup

Vice Chair

Vice Chair

Vice Chair

Dr Christian Schütte

Anne Zeidler

Achim Zerres