



Grand Ruling Chamber for Energy

Reference: GBK-25-02-2#1

Decision

In the administrative proceedings pursuant to section 29(1) in conjunction with sections 21 and 21a of the Energy Industry Act (EnWG)

relating to the **proceedings for the determination of the methodologies for carrying out efficiency benchmarking for gas distribution system operators and transmission system operators**

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	Achim Zerres,
its Vice Chair	Karsten Bourwieg,
and its Vice Chair	Dr Christian Schütte,

decided on December 8th 2025:

1. Addressees

¹The determination applies to all operators of gas distribution systems and transmission systems participating in the standard procedure. ²It does not apply to operators of closed distribution systems or those network operators participating in the simplified procedure pursuant to operative part 16 of the RAMEN determination.¹

2. Carrying out efficiency benchmarking

2.1 ¹Before the start of the regulatory period, the Bundesnetzagentur will carry out, in line with the latest scientific findings and in consideration of the requirements set out in this determination, nationwide efficiency benchmarking for gas distribution system operators with a view to calculating individual efficiency scores for these network operators where possible. ²In doing so, it must ensure that the efficiency requirements are reasonable, attainable and surpassable.

2.2 ¹Before carrying out efficiency benchmarking for gas distribution system operators for the respective regulatory period, the Bundesnetzagentur will examine whether efficiency benchmarking is feasible. ²To do so, it will, in particular, examine the structural comparability of the network operators participating in efficiency benchmarking pursuant to operative part 8.4. ³In addition, the examination can also cover the methodological feasibility and appropriateness of carrying out efficiency benchmarking and its applicability in regulation. ⁴If the examination pursuant to sentence 3 indicates that it is not feasible to carry out efficiency benchmarking, different rules can be applied. ⁵This relates in particular to the input parameters within the meaning of operative part 6 and the settlement methodology within the meaning of operative part 12.

¹ References to RAMEN in this determination are to the RAMEN Gas determination as last amended.

3. Data basis

3.1 ¹The Bundesnetzagentur will collect the data needed nationwide to calculate the efficiency scores from the network operators coming under the scope of operative part 1. ²Network operators are required to provide information in this regard. ³The details of the scope, time and form of the data to be collected and transmitted, in particular the permissible data and transmission media, will be set out in a separate determination pursuant to section 21a(3) sentence 3 para 11 EnWG.

3.2 ¹For the appropriate feasibility of efficiency benchmarking, the regulatory authorities of the federal states should transmit to the Bundesnetzagentur by 31 March of the calendar year preceding the regulatory period the total costs of the network operators falling under their remit pursuant to section 54(2) EnWG that are calculated pursuant to the GasNEF² determination and are necessary for carrying out nationwide efficiency benchmarking in accordance with this determination. ²These include the total costs after deduction of the costs not subject to efficiency benchmarking within the meaning of operative part 7 RAMEN and the total costs after carrying out the cost standardisation in accordance with operative part 7 of this determination. ³If the data referred to in sentence 1 are not available in good time to design the model, the Bundesnetzagentur can design the model for nationwide efficiency benchmarking using the data provided by the affected network operators in the procedure for setting the revenue caps. ⁴The Bundesnetzagentur can still use a different status with provisionally checked cost values or suitable proxy values to design the model and calculate the individual efficiency scores.

3.3 The Bundesnetzagentur can start designing the model as soon as the available data basis permits a statistically reliable cost driver analysis.

² References to the GasNEF determination in this determination are to the GasNEF as last amended.

4. Dealing with missing and incomplete data; data corrections

4.1 ¹When carrying out efficiency benchmarking, the Bundesnetzagentur will take into account the data from the network operators that have been received by the deadline set out in the individual determination on the collection of data and the deadline for corrections. ²The Bundesnetzagentur can additionally set an internal cutoff date for data corrections to be taken into account and not take account of any adjustments made after this date in the design of the model and its underlying data basis. ³The Bundesnetzagentur will decide on a case-by-case basis about the correction of data errors after the deadlines and the cutoff date, taking account in particular of the time, the area of responsibility, the economic relevance and the impact on the overall system.

4.2 ¹If the data needed to carry out efficiency benchmarking in accordance with this determination are not available in good time before the start of the regulatory period, data for the last available calendar year can be used. ²If no data or clearly incorrect data are available, the Bundesnetzagentur can determine the missing data using appropriate estimates. ³The arrangement in operative part 14 sentence 2 remains unaffected.

4.3 Any subsequent amendments to the underlying data basis as a result of final court decisions will not affect efficiency benchmarking.

5. Efficiency benchmarking parameters

The Bundesnetzagentur must take account of input parameters and output parameters in its efficiency benchmarking.

6. Input parameters

¹The costs calculated as stated below must be applied as input parameters. ²The basis for calculating the input parameters will be the base level calculated pursuant to the GasNEF minus the costs not subject to efficiency benchmarking defined in operative part 7 RAMEN. ³The capital costs for carrying out efficiency benchmarking should be determined such that their comparability is ensured to the greatest possible extent and

distortions that can occur, particularly as a result of different asset lifetimes and depreciation practices, are taken into account (cost standardisation).⁴In addition, input parameters for which no cost standardisation has been carried out are taken into account.⁵The input parameters can be adjusted pursuant to operative part 12 sentence 3 para 2.

7. Cost standardisation

7.1 To sufficiently ensure that the capital costs are comparable, in the course of the cost standardisation to be carried out pursuant to operative part 6 sentence 3, capital cost annuities must be calculated as set out in operative part 7.2; the capital costs comprise the cost items set out in operative part 4.2 GasNEF.

7.2 ¹The cost standardisation pursuant to operative part 7.1 will be carried out on the basis of the replacement costs of the depreciable tangible fixed assets and contributions to construction costs, network connection cost contributions and investment grants paid and received; for investment grants this will apply only to the extent that there is no offsetting from the asset side in accordance with operative part 9.1 sentence 4 GasNEF. ²The figures for average useful life in Annex 1 GasNEF must be used to calculate uniform useful lives for each group of assets, with the lower figure applying for groups of assets with a range of useful life. ³The amortisation period of 20 years set out in operative part 13 sentence 3 GasNEF will apply as the useful life for contributions to construction costs, network connection cost contributions and investment grants received. ⁴The rate of interest to be applied must be calculated based on the weighted average cost of capital (WACC) determined from a methodology determination pursuant to section 21(3) sentence 4 para 1 (a) EnWG in accordance with operative part 10 sentences 1 and 2 GasNEF. ⁵This nominal interest rate must be adjusted by the rate of price change to obtain a real interest rate. ⁶The capital cost annuities of contributions to construction costs, network connection cost contributions and investment grants received are taken into consideration in the cost standardisation as minus figures.

7.3 ¹The return on the other operationally necessary assets – land, intangible assets other than contributions to construction costs, network connection cost

contributions and investment grants paid, payments on account and fixed assets under construction, inventories and current assets – is derived in the course of the cost standardisation from operative part 10 sentence 4 GasNEF and operative part 7.2 sentence 4. ²Operationally necessary depreciation of intangible assets – with the exception of operationally necessary depreciation for contributions to construction costs, network connection cost contributions and investment grants paid – and imputed trade tax must be taken from the base level.

7.4 ¹Replacement costs for all assets in operation as at 31 December of the base year must be calculated for the depreciable tangible fixed assets. ²This does not apply to assets older than the upper limit of the ranges of useful life pursuant to Annex 1 GasNEF. ³In the calculation of replacement costs pursuant to operative part 7.2, the index series given in Annex 1a must be applied for the depreciable tangible fixed assets and the contributions to construction costs, network connection cost contributions and investment grants paid; for the contributions to construction costs, network connection cost contributions and investment grants received, the Federal Statistical Office's consumer price index must be used as for the contributions paid. ⁴Where the index series of the Federal Statistical Office given in Annex 1a are not available for the necessary period in the past, the calculation of replacement costs must be based on replacement index series that must be chain-linked with the index series given in Annex 1a. ⁵The link factors are derived by dividing the index value that is furthest in the past of the index series in Annex 1a by the index value of the replacement index series for the same year under consideration. ⁶The replacement index series pursuant to Annex 1b must be applied.

7.5 ¹The replacement cost in the base year of an asset procured in the year t or a contribution to construction costs, a network connection cost contribution or an investment grant paid or received in the year t must be calculated by multiplying the index factor of the year t by the historical acquisition and production costs or the historical payments of or historical access to contributions and grants. ²The index factor of the year t is derived from the quotient of the index value of the base year and the index value of the year t and must be rounded off to four decimal places.

8. Output parameters

8.1 ¹Output parameters are parameters used to determine the supply task and regional features, in particular geographic, geological and topographic characteristics and special structural circumstances of the supply task. ²The parameters must be suitable to support robust efficiency benchmarking; this is to be assumed, in particular, when they are measurable or quantifiable, when they cannot be determined by decisions of the network operator and are not wholly or partly similar in effect and, in particular, are not already replicated by other parameters. ³In determining parameters to describe geographic, geological and topographic characteristics, approximate values for the area can be created. ⁴Output parameters related to the different levels of gas supply networks can be used; there will be no comparison of individual network levels.

8.2 ¹The selection of output parameters will be made using state-of-the-art engineering and statistical methods. ²It should also be based on a uniform cost driver analysis, even if multiple methodologies are applied to measure efficiency. ³A selection with statistical methodologies should be made taking account of standardised output parameters and non-standardised output parameters.

8.3 For the different methodologies within the meaning of operative part 9 of this determination, the same output parameters will be applied; different parameter specifications can be applied in the different methodologies for measuring efficiency.

8.4 ¹The selection of the output parameters must guarantee structural comparability as far as possible and adequately reflect the heterogeneity of network operators' tasks. ²The differences between gas supply networks must hereby be taken into account, in particular the different degrees of deployment and connection of the gas supply networks.

³If it is not possible to reflect the heterogeneity of network operators' tasks where the supply tasks are essentially different, it is possible in particular for

1. network operators that have a fundamentally different supply task to that of other network operators to be removed from the data set before the cost driver analysis/design of the model,

2. network operators that have a fundamentally different supply task to that of other network operators to be removed from the data set using a modification of the outlier analysis.

⁴The choice of methodologies to reflect heterogeneity will be made in an individual determination pursuant to section 21a(2), (3) sentence 3 para 2 EnWG.

9. Methodologies

9.1 In carrying out efficiency benchmarking in accordance with this determination, the methodologies of data envelopment analysis (DEA) and stochastic frontier analysis (SFA) must be applied unless new scientific findings make it necessary to apply one or more different methodologies.

9.2 ¹DEA within the meaning of this determination is a non-parametric method providing optimum input and output combinations from a linear optimisation problem. ²It determines an efficiency frontier from the data of all the benchmarked companies and their positions relative to this frontier.

9.3 ¹SFA within the meaning of this determination is a parametric method that creates a functional connection between input and output in the form of a cost function. ²It breaks down the divergencies between actual costs and costs estimated by means of regression analysis into a symmetrically distributed error term and a positively distributed residual component. ³The residual component is an expression of inefficiency; hence a skewed distribution of the residual component is assumed.

9.4 ¹A DEA must assume constant returns to scale. ²The SFA must assume constant returns to scale provided that the robustness of the selection of the output parameters and the efficiency benchmarking model are not impacted.

10. Procedure

The Bundesnetzagentur must consult representatives of the economic sectors affected on the design of the methodologies and the selection of output parameters in good time.

11. Cost basis

¹First, the efficiency scores will be calculated using the input and output parameters identified in accordance with operative parts 6 and 8. ²In addition, the calculation will be carried out in such a way that the input parameter referred to in operative part 6 is replaced for all network operators by the input parameter obtained when cost standardisation as set out in operative part 7 is not taken into account. ³The output parameters identified pursuant to operative part 8 remain unchanged.

12. Settlement methodology

¹If the efficiency scores calculated for a network operator with the input parameters permitted under operative part 6 differ from each other, for each permitted method within the meaning of operative part 9 first an average must be calculated from the efficiency scores arising from the input parameters permitted under operative part 6; then the higher efficiency score of the averages calculated must be used.

²It is possible to deviate from the provision of sentence 1 if the challenges arising from the process of transforming the gas networks are not adequately accommodated using the settlement methodology described in sentence 1. ³In that case, the individual efficiency score can in particular be calculated by

1. using the higher efficiency score of the efficiency scores calculated for a network operator with the input parameters permitted under operative part 6 and the methodologies permitted under operative part 9, if the efficiency scores calculated differ from each other,
2. before applying sentence 1, adjusting the total costs so that they are based on the lower value of the useful life pursuant to GasNEF in the total costs using the

annual acquisition and production costs and continuation of straight-line depreciation.

⁴The choice of method will be made in a determination pursuant to section 21a(2), (3) sentence 3 para 2 EnWG.

13. Outlier analyses

13.1 The Bundesnetzagentur will carry out state-of-the-art analyses to identify outliers for the methodologies set out in operative part 9.

13.2 ¹In the DEA, a dominance analysis must first be carried out to identify outliers; the outliers detected must be removed from the data set for the DEA and the super-efficiency analysis. ²Then a super-efficiency analysis must be carried out to identify further outliers; the outliers detected must be removed from the data set for the DEA. ³The outliers detected are given an efficiency score of 100%.

13.3 ¹In the SFA, an analysis of the influence of individual network operators on the position of the calculated regression line must be carried out to identify outliers. ²The outliers detected must be removed from the data set for the SFA. ³The outliers detected receive the efficiency score obtained by means of the methodology explained in operative part 9.3.

13.4 The Bundesnetzagentur can further develop the outlier analyses for the respective regulatory period by means of a determination pursuant to section 21a(2), (3) sentence 3 para 2 EnWG.

14. Minimum efficiency score

¹If the efficiency score calculated for a network operator in accordance with operative part 12 is less than 70%, the efficiency score must be set at 70%. ²This also applies if it has not been possible to calculate efficiency scores for particular network operators on account of their failure to comply with their duty to provide data.

15. Efficiency score

¹Network operators on the efficiency frontier in the DEA are assigned an efficiency score of 100% in the DEA; a correspondingly lower score applies to all other network operators. ²In the SFA, the network operators receive the efficiency score obtained by means of the methodology explained in operative part 9.3. ³The individual efficiency score must be calculated in accordance with operative part 12 and given as a proportion of total costs after deduction of the costs not subject to efficiency benchmarking, expressed as a percentage. ⁴Efficiency scores will be calculated in efficiency benchmarking with reference to all pressure levels; no partial efficiency will be calculated for individual pressure levels.

16. Special circumstances of the supply task

¹If a network operator can demonstrate the existence of special circumstances of the supply task, that is, the existence of unusual structural features that have not been taken into proper consideration in efficiency benchmarking by the choice of parameters according to operative parts 6 and 8 and that cannot be controlled by the network operator, and these increase the input parameters without cost standardisation pursuant to operative part 6 sentence 4 of this determination by at least 5%, the regulatory authority must mark up the efficiency score calculated in accordance with the provisions of this determination (adjusted efficiency score). ²A markup on the efficiency score as provided for in sentence 1 will only be made upon application by the network operator. ³The application must be submitted to the regulatory authority responsible for determining the revenue caps. ⁴If the efficiency score pursuant to operative part 14 has been applied, the network operator must supply the proof required to show that the special circumstances of its supply task justify an additional markup as set out in sentence 1.

17. Calculating inefficiencies

¹Inefficiencies will be calculated from the efficiency score calculated pursuant to operative part 15 or from the adjusted efficiency score pursuant to operative part 16. ²The inefficiencies will be obtained from the difference between the total costs after

deduction of the costs not subject to efficiency benchmarking and the total costs multiplied by the efficiency score referred to in sentence 1 after deduction of the costs not subject to efficiency benchmarking.

18. Individual efficiency requirement

Revenue caps must be determined in such a way that inefficiencies calculated pursuant to operative part 17 can be reduced evenly within three years from the start of the regulatory period through the application of a distribution factor (individual efficiency requirement).

19. Communication to the federal states

¹The Bundesnetzagentur should communicate to the regulatory authorities of the federal states by 1 July of the calendar year before the start of the regulatory period the efficiency scores it has calculated for the network operators falling under their remit pursuant to section 54(2) EnWG. ²The communication must include the original data as referred to in operative parts 6, 7 and 8 of this determination and the GasNEF, the individual calculation steps and the results of the methodologies permitted under operative part 9. ³If it has not been possible to establish efficiency scores for particular network operators in nationwide efficiency benchmarking, the Bundesnetzagentur must inform the regulatory authorities of the federal states accordingly, giving reasons.

20. Efficiency benchmarking of the transmission system operators

¹For operators of transmission systems, efficiency scores are taken from the most recent efficiency comparison under Article 19(2) of Regulation (EU) 2024/1789, provided that this takes adequate account of national conditions; in other respects, the provisions of this determination apply accordingly.

²If national conditions are not adequately taken into account, national efficiency benchmarking will be carried out, where possible on the basis of the model developed by the European Union Agency for the Cooperation of Energy Regulators (ACER) and otherwise in accordance with the provisions of this determination.

³If it is not possible to use the model referred to in sentence 2, the model developed for the fourth regulatory period can be used to calculate the efficiency scores for the fifth regulatory period.

⁴National efficiency benchmarking in accordance with sentence 2 may only be carried out if it is reliably possible following an examination in accordance with operative part 2.2 with regard to the increased heterogeneity caused by decarbonisation and the transformation of the gas networks.

⁵Where national efficiency benchmarking is carried out in accordance with sentence 2, the provisions of this determination apply to the extent possible due to the sample size.

21. Period of applicability

This determination will apply for the fifth regulatory period and subsequent regulatory periods.

22. Procedural provisions

The procedural provisions in operative part 16 sentences 2 and 3 will not affect the administrative proceedings of the federal state regulatory authorities. The application requirement and application procedure apply solely to network operators within the meaning of operative part 1 that fall under the responsibility of the Bundesnetzagentur in accordance with section 54(1) and (2) EnWG.

23. Payment of costs

No fees are payable for the decision.

Annex 1a, index series for gas* (re operative part 7)

The following index series from the Federal Statistical Office must be used as the basis for calculation of the replacement costs in accordance with operative part 7.4:

1. for the asset groups I.2 Property facilities, building and structures for transport, other buildings I.3 Industrial buildings, I.4 Administrative buildings, III.8 Buildings, transport infrastructure and V.9 Buildings (measuring, regulating and metering equipment) in Annex 1 GasNEF, the index series Commercial industrial buildings, construction work on buildings, excluding turnover tax, (Federal Statistical Office, Construction price indices: Germany, years, indices including/excluding turnover tax, types of buildings, types of construction work (building construction), Code: 61261-0001);
2. for the asset groups Pipelines and house connections IV.1.1 Steel pipelines, polyethylene-coated, IV.1.2 Steel pipelines with cathodic protection, IV.1.3 Steel pipelines, bituminous, IV.2 Grey iron (> DN 150), IV.3 Ductile iron, IV.4 Polyethylene (PE-HD) and IV.5 Polyvinyl chloride (PVC) and VII LNG connection assets in Annex 1 GasNEF, the index series Sewers, Constr. operat. in the narrower sense (civ. eng.), excluding turnover tax (Federal Statistical Office, Construction price indices: Germany, years, indices including/excluding turnover tax, civil engineering, types of construction work (civil engineering), Code: 61261-0003);
3. for the asset groups IV.1.1 Steel pipelines, polyethylene-coated, IV.1.2 Steel pipelines with cathodic protection and IV.1.3 Steel pipelines, bituminous, and VII LNG connection assets in Annex 1 GasNEF that are designed for gas transport with a pressure greater than 16 bar,
 - a) the index series Steel tubes, pipe fittings, pipe fasteners and pipe connections of iron and steel (Federal Statistical Office, Producer price index for industrial products: Germany, years, product classification (GP2019 2-/3-/4-/5-/6-/9-digit codes/special items), Code: 61241-0003, variable: GP2019 (4-digit codes): Industrial products, GP19-2420) with a share of 40%;

b) and the index series Sewers, Constr. operat. in the narrower sense (civ. eng.), excluding turnover tax (Federal Statistical Office, Construction price indices: Germany, years, indices including/excluding turnover tax, civil engineering, types of construction work (civil engineering), Code: 61261-0003) with a share of 60%;

4. for the asset group VIII.3 Paid construction cost contributions, network connection cost contributions and investment grants in Annex 1 GasNEF, the Consumer price index (Federal Statistical Office, Consumer price index: Germany, years, Code: 61111-0001);
 5. for all other asset groups with the exception of asset groups I.1 Land, VIII.1 Self-created industrial property rights and similar rights and assets and VIII.2 Purchased concessions, industrial and similar rights and assets, and licences in such rights and assets in Annex 1 GasNEF, the Producer price index for industrial products overall (without mineral oil products) (Federal Statistical Office, Producer price index for industrial products: Germany, years, product classification (GP2019 2-/3-/4-/5-/6-/9-digit codes/special items), Code: 61241-0003, variable: GP2019 (Special items): Industrial products, GP-X0051).
- * Federal Statistical Office, Gustav-Stresemann-Ring 11, 65189 Wiesbaden; can be accessed at www-genesis.destatis.de by entering the relevant code.

Annex 1b, replacement index series for gas* (re operative part 7)

Replacement index series pursuant to operative part 7.4 sentence 6 are:

1. for the index series Industrial and commercial buildings, Construction operations performed at the building, excluding turnover tax,
 - a) for the period from 1958 to 1968: the index series Industrial and commercial buildings, Construction operations performed at the building, including turnover tax (Federal Statistical Office, Construction price indices, Germany, years, indices including/excluding turnover tax, types of buildings, types of construction work (building construction), Code: 61261-0001) and
 - b) for the period before 1958: the index series Rebuilding value of residential buildings erected in 1913/14 (Federal Statistical Office, Construction price indices, Germany, years, indices including/excluding turnover tax, types of buildings, types of construction work (building construction), Code: 61261-0011);
2. for the index series Sewers, Constr. operat. in the narrower sense (civ. eng.), excluding turnover tax
 - a) for the period from 1958 to 1968: the index series Sewers, Constr. operat. in the narrower sense (civ. eng.), including turnover tax (Federal Statistical Office, Construction price indices, Germany, years, indices including/excluding turnover tax, civil engineering, types of construction work (civil engineering), Code: 61261-0003) and
 - b) for the period before 1958: the index series Rebuilding value of residential buildings erected in 1913/14 (Federal Statistical Office, Construction price indices, Germany, years, indices including/excluding turnover tax, types of buildings, types of construction work (building construction), Code: 61261-0011);

3. for the index series Steel tubes, pipe fittings, pipe fasteners and pipe connections of iron and steel
 - a) for the period from 1968 to 1999, the index series Precision steel tubes, seamless and welded (Federal Statistical Office, GP19-24201-01) and
 - b) for the period before 1968, the index series Iron and steel (Federal Statistical Office, GP1989:27)

4. for the Producer price index series for industrial products overall (without mineral oil products), for the period before 1976, the Producer price index for industrial products overall (Federal Statistical Office, Producer price index for industrial products: Germany, years, Code: 61241-0001).

- * Federal Statistical Office, Gustav-Stresemann-Ring 11, 65189 Wiesbaden; can be accessed at www-genesis.destatis.de by entering the relevant code.

