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Decision

Method decision on electricity and drinking water in the Caribbean Netherlands 2020-2025

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Case number : ACM/18/034526

Method decision on electricity and drinking water in the Caribbean Netherlands 2020-2025

Determination by the Netherlands Authority for Consumers and Markets of a method as referred to in Section 2.5, paragraph 4, and Section 3.14, paragraph 5, of the BES Electricity and Drinking Water Act (*Wet elektriciteit en drinkwater BES*).

This is an English translation of the Dutch version. In the event of any discrepancy between the Dutch version and this translation, and in case of any disputes, the Dutch version prevails

Contents

Summary

1. In this method, the Netherlands Authority for Consumers and Markets (hereinafter: ACM) sets out how it determines the tariffs for drinking water and electricity on Bonaire, Sint Eustatius and Saba. ACM has this task under the BES Electricity and Drinking Water Act, which came into force on July 1st, 2016.

2. This method applies for the period from January 1st, 2020 up to and including December 31st, 2025. This is also known as the second regulatory period. The first regulatory period is the period from January 1st, 2017 up to and including December 31st, 2019.

3. ACM uses this method to lay down the tariffs for both producers and distributors of electricity and drinking water. These are the following companies:
    - Water en Energiebedrijf Bonaire N.V. (WEB)
    - ContourGlobal Bonaire B.V. (ContourGlobal)
    - Statia Utility Company N.V. (STUCO)
    - Saba Electric Company N.V. (SEC)

How did this method come about?

4. ACM drew up and consulted on a draft method on May 16th, 2019. Stakeholders, such as utility companies and end-user organizations, had an opportunity to respond to this draft method. On the basis of the responses, ACM adopted the definitive method on September 25th, 2019. ACM published all responses on its website. The method explains how ACM processed these responses.

Legal framework

5. The method which ACM is required to lay down under the BES Electricity and Drinking Water Act provides the framework for the tariff decisions. This method qualifies as a policy rule, so stakeholders cannot lodge an administrative or judicial appeal against it *directly*. They *can* do so in the case of tariff decisions. In legal proceedings against the tariff decisions, a stakeholder can then also put forward arguments against the method.

Regulatory framework

6. The objective of the BES Electricity and Drinking Water Act is to ensure a reliable, affordable and sustainable supply of electricity and drinking water in the Caribbean Netherlands. The tariff regulation must ensure that utility companies are encouraged to operate efficiently, but also that they can carry out their investments. In line with the first regulatory period, ACM has opted for the profit-sharing method, whereby it carries out a preliminary estimate of the costs borne by the utility company. If it subsequently turns out that a utility company has incurred higher or lower costs, part of the difference is borne by or accrues to the utility company, with the remainder being borne by or accruing to the end-user. This is intended on the one hand to provide sufficient scope for investments and on the other to provide an incentive for utility companies to operate efficiently. If a utility company succeeds in saving costs, ACM sets the revenues for the following year at a lower

level and the tariffs are also lower. In that way, the end-user also benefits from the cost savings achieved by the utility company.

Method of regulation

7. The profit-sharing method consists of four steps:
    1. Laying down the fixed and variable costs of each activity. ACM bases the method on the actual costs of the utility company. ACM can also make adjustments, for example if not all the costs incurred by the utility company are necessary for the performance of that company's statutory tasks. The costs consist of the operating costs and capital costs. Capital costs are depreciation and the reasonable return that a utility company is permitted to earn. The total costs of the utility company are divided into costs for drinking water and electricity and for the production and distribution of both supplies. Finally, the costs of each activity are subdivided into a fixed costs part and a variable costs part.
    2. From costs to revenues. ACM applies an adjustment to the actual costs from a previous year to take account of inflation and the estimated rise or fall in costs due to major occurrences, such as an improvement in the sustainability of production facilities. This leads to the setting of an amount of revenue for each activity of the utility company for the following year.
    3. From revenues to tariffs. These revenues must then be converted into tariffs. There is one production price for electricity and one for drinking water, which is obtained by dividing the revenues by the associated volume. The Act also specifies the tariff categories that apply to the usage tariffs (for both drinking water and electricity):
        a. the fixed usage tariff, to cover the network costs, including measurements and preventing and fixing malfunctions;
        b. the variable usage tariff, to cover the production price that the distributor pays to the producer;
        c. the connection tariff, to cover the (one-off) costs of installing a new connection to the network;
        d. the reconnection fee, to cover the costs of reconnecting an end-user who was previously disconnected;

        In addition to these four tariffs, in which further differentiation is possible in terms of the size of the connection, specifically for WEB there is a Pagabon tariff for electricity and for WEB and STUCO there is a road transport tariff for drinking water that is distributed by truck, to cover the costs of transporting drinking water by truck. For all these tariff categories ACM calculates the tariff by allocating the revenues in step 2 among these categories and dividing them by the associated volume per category.
    4. Retrospective settlement of differences. After the end of a calendar year, ACM assesses whether the actual costs incurred by the utility company were the same as the estimated costs previously determined by ACM, based on an estimate of the costs. If the actual costs were higher or lower, part of the difference is for the account of the utility company. ACM takes the remainder into account in the revenues (and hence tariffs) for a subsequent year. Before doing so, ACM first applies an adjustment for the effects of higher or lower volumes.

8. ACM commissioned an investigation by European Economic Research Limited to determine a reasonable return for the utility companies. This reasonable return is known as: Weighted Average Cost of Capital (WACC).

9. The costs of fuel for the production of electricity may vary, because they depend on the oil price. The producer may reflect this in a monthly adjustment to the production price. In the second regulatory period too, ACM uses the actual prices which the producer pays for the fuel. ACM may subsequently conduct a further investigation into the efficiency of the purchasing and use of fuel.

10. Under the BES Electricity and Drinking Water Act, the distributor may adjust the variable usage tariff up to twice a year as a result of adjustments to the production price, namely on July 1st and January 1st.

Responses from stakeholders

11. ContourGlobal, WEB, STUCO and SEC have responded to the concept method and/or the concept WACC attachment. ACM have made a number of adjustments based on these responses

12. In addition, ACM explained per opinion where the opinion has led to and ACM has further clarified parts of the method.

1 Introduction and reader's guide

13. In this document, the Netherlands Authority for Consumers and Markets (hereinafter: ACM) records the method it applies under Section 2.5, paragraph 4, and Section 3.14, paragraph 5, of the BES Electricity and Drinking Water Act.[1] In order to encourage efficient business operation, these sections require ACM to apply a method to lay down the production price of electricity and drinking water as well as a method to lay down the usage tariffs for electricity and drinking water.

14. The method which ACM lays down in this document applies to the period from January 1st, 2020 up to and including December 31st, 2025 (hereinafter: the second regulatory period).

15. The BES Electricity and Drinking Water Act only applies to Bonaire, Sint Eustatius and Saba. As the circumstances under which electricity and drinking water companies operate may differ from island to island, the method to be employed for these utility companies may also differ in part. If that is the case, ACM will provide an explanation in the present decision.

16. The method to be employed by ACM applies to the following companies:
    - Water- en Energiebedrijf Bonaire N.V. (WEB)
    - ContourGlobal Bonaire B.V. (ContourGlobal)
    - Statia Utility Company N.V. (STUCO)
    - Saba Electric Company N.V. (SEC)

17. WEB is a producer and distributor of both electricity and drinking water on Bonaire.

18. ContourGlobal is an electricity producer on Bonaire.

19. STUCO is a producer and distributor of both electricity and drinking water on Sint Eustatius.

20. SEC is a producer and distributor of electricity on Saba.

21. This method also applies to companies, entities or legal persons which, during the regulatory period, possibly as a result of a merger or a change of name or legal form, are granted a license by the Minister of Economic Affairs and Climate Policy and/or the Minister of Infrastructure and Water Management to produce and/or distribute electricity and/or drinking water in the Caribbean Netherlands.

The structure of this document

22. This document consists of a number of chapters. Chapter 2 first describes the procedure and rationale for the creation of the method. Secondly, Chapter 3 describes the legal framework. The

[1] Law of March 23rd, 2016, containing rules for the production and distribution of electricity and drinking water on Bonaire, Sint Eustatius and Saba (BES Electricity and Drinking Water Act), Bulletin of Acts and Decrees 2016, 142.

principles underlying the regulatory framework are then described in Chapter 4. This framework is important in justifying ACM's ultimate choices and decisions on the creation of the method. Chapter 5 describes the method of regulation and the operation of the regulatory system during the second regulatory period. Chapter 6 contains the provisions.

Annexes to this document

23. ACM has appended three annexes to this decision. In Annex 1, ACM describes the Weighted Average Cost of Capital (WACC) method. In order to lay down the WACC method, ACM commissioned an external investigation by European Economics Research Limited. ACM published the results of this investigation on its website on July 9th 2019.

24. Annex 2 contains the views of stakeholders on the draft decision as made available by ACM for consultation on May 16th 2019, together with ACM's response.

25. Annex 3 contains the views of stakeholders on the draft WACC-attachment as made available by ACM for consultation on July 9th 2019, together with ACM's response.

2 Procedure and rationale for the creation of the method

26. In this chapter, ACM describes the procedure it adopted for the creation of this method.

27. Under the BES Electricity and Drinking Water Act, ACM's responsibilities include, in summary, laying down a maximum production price for electricity and drinking water and a maximum usage tariff for electricity and drinking water. The production price is charged by the producer to the distributor. The usage tariff is charged by the distributor to the end-user.

28. The production price and the usage tariff must be based on a method to be employed by ACM. This method must encourage efficient business operation by the producer and the distributor and is laid down after consultation between ACM and stakeholders.[2]

29. The method provides for a reasonable economic return and specifies how the expected efficient costs are determined. It also includes the way in which the energy costs are determined as part of the production price.

30. The method contributes to the objectives of the Act: ensuring a reliable, affordable and sustainable supply of electricity and drinking water in the Caribbean Netherlands. The method applies for a period of between three and ten years.

For this final method decision, ACM has included the submitted opinions in its assessment. Annex 2 to this method contains a summary of those opinions and a response from ACM. ACM has also received various opinions on the draft method for determining the WACC. In annex 3, ACM indicates how ACM involved these responses in determining the final WACC.

[2] Pursuant to Section 2.1, paragraph 1, of the Ministerial Decree on Electricity and Drinking Water in the BES Islands.

3 Legal framework

31. Under Section 2.5, paragraph 1, of the BES Electricity and Drinking Water Act, ACM lays down the maximum production price to be charged by the producer of electricity and drinking water to a distributor for the produced electricity and drinking water.

32. Pursuant to Section 2.5, paragraph 4, of the BES Electricity and Drinking Water Act, ACM employs a method to set the production prices of electricity and drinking water that encourages efficient business operation.

33. Under Section 3.14, paragraph 1, of the BES Electricity and Drinking Water Act, ACM lays down the maximum tariffs to be charged by the distributor to the end-users for the distribution of electricity and drinking water.

34. Pursuant to Section 3.14, paragraph 5, of the BES Electricity and Drinking Water Act, ACM employs a method to set the usage tariffs of electricity and drinking water that encourages efficient business operation.

35. The method referred to in Section 2.5, paragraph 4, and Section 3.14, paragraph 5, of the BES Electricity and Drinking Water Act qualifies as a policy rule. This follows from the judgement of the Court of First Instance of Bonaire, Sint Eustatius and Saba (the Court) of July 31st, 2018 in which it considered that the method was intended to be binding on ACM itself rather than on third parties, and also laid down no independent standards.[3]

36. Section 3, paragraph 1, preamble and part a, of the Bonaire, Sint Eustatius and Saba Public Entities Implementation Act[4] specifies that the General Administrative Law Act, except Chapter 9, does not apply to decisions and actions of administrative bodies located in the European part of the Netherlands for the implementation of legislation that applies only within the public entities.

37. Pursuant to Section 3, paragraph 2, of the Bonaire, Sint Eustatius and Saba Public Entities Implementation Act, in the cases referred to in paragraph 1, the BES Administrative Justice Act (*Wet administratieve rechtspraak BES*) applies insofar as decisions within the meaning of that Act are concerned.

38. Under Section 3, paragraph 1, of the BES Administrative Justice Act, a decision is a written decision by an administrative body that is a legal act under public law and that is not of general scope.

[3] Court of First Instance of Bonaire, Sint Eustatius and Saba July 31st, 2018, ECLI:NL:OGHACMB:2018:149, legal consideration 6.8.
[4] Act of May 17th, 2010 introducing regulations with regard to the public entities of Bonaire, Sint Eustatius and Saba (*Invoeringswet openbare lichamen Bonaire, Sint Eustatius en Saba*), Bulletin of Acts and Decrees 2010, 346.

39. Pursuant to Section 7, paragraph 1, of the BES Administrative Justice Act, natural persons and legal persons whose interests were directly affected by a decision can lodge a judicial appeal against it at a court of law.

40. Under Section 9, paragraph 1, of the BES Administrative Justice Act, a judicial appeal can be lodged against a decision on the grounds that the decision conflicts with a generally binding provision or a general legal principle.

41. Under Section 55 of the BES Administrative Justice Act, natural persons and legal persons as referred to in Section 7, paragraph 1, of the BES Administrative Justice Act are authorized to lodge an administrative appeal with ACM to protest the decision, and to appeal to the Court only after ACM has made a decision pertaining to the administrative appeal.

Application of the legal framework and legal protection

42. ACM is established in the European part of the Netherlands and its responsibility is to ensure compliance with the BES Electricity and Drinking Water Act. This Act only applies to the public entities of Bonaire, Sint Eustatius and Saba. For this reason, the BES Administrative Justice Act (instead of the General Administrative Law Act) applies to ACM's decisions pertaining to the implementation of the BES Electricity and Drinking Water Act.

43. In this document, ACM records the method that forms the basis for the decisions on production prices and tariffs. The production price for electricity and drinking water as well as the usage tariffs for electricity and drinking water are then laid down by ACM each year by means of a decision.

44. Since the method is a policy rule, no (individual) judicial appeal against it can be lodged with the Court and nor can any (individual) administrative appeal be lodged with ACM. The policy rule can be tested by means of production price or tariff decision,

45. since natural persons and legal persons whose interests were directly affected by the decisions can lodge a judicial appeal against the production price and tariff decisions with the Court or, if they prefer, first lodge an administrative appeal with ACM. The judicial or administrative appeal may also contain arguments opposing the method laid down by ACM.

Conclusion

46. In this method, ACM lays down the framework to serve as a basis for the tariff decisions. ACM deems this method to be sound, carefully prepared and compliant with (the principles of) the BES Electricity and Drinking Water Act, and therefore with the legislature's intentions.

47. Unexpected circumstances may be grounds for changing or adjusting the method's implementation. Any change and/or adjustment will be implemented by ACM insofar as it cannot be deferred until the third regulatory period. ACM can do that by amending the method decision or by means of the next production price or tariff decisions.

48. The Ministry of Economic Affairs and Climate Policy and the Ministry of Infrastructure and Water Management are currently working on an amendment to the BES Electricity and Drinking Water

Act and the regulations under it. This may make it necessary to amend the method decision during the regulatory period.

4 Regulatory framework

48. In this chapter, ACM describes the principles it applies when drawing up the regulation for the Caribbean Netherlands. First, it explains what the BES Electricity and Drinking Water Act states about regulation, followed by an explanation of principles applied by ACM and the choices resulting from them.

The BES Electricity and Drinking Water Act

49. The general objective of the BES Electricity and Drinking Water Act is to ensure a reliable, affordable and sustainable supply of electricity and drinking water in the Caribbean Netherlands. In the Explanatory Memorandum, this general objective is divided into the following three goals of tariff regulation:
    - Consumer protection (against excessively high tariffs of a monopolist);
    - Investor protection (a stable and predictable regulatory climate enabling the company to make the necessary investments; a reasonable return for the companies);
    - Efficiency of the companies (sufficient quality at the lowest possible costs).

50. The Explanatory Memorandum also cites 'cost orientation' as a basic principle. This means that the tariffs for the services provided by the companies must be related to the underlying costs of those services as far as possible. For example, the costs of producing drinking water cannot be included in the electricity tariffs and vice versa.

51. ACM must take account of two basic principles in its method. On the one hand, it must take account of the costs incurred by a utility company, and on the other hand, the utility company must have an incentive to operate efficiently. These two basic principles must be linked to one another. If only a utility company's costs were to be taken into account, without an incentive to operate efficiently, it would be a cost-plus regulatory method. If there is more focus on the efficiency incentive, there are various options. During the parliamentary treatment of the BES Electricity and Drinking Water Act the following options were mentioned for incentivizing companies to operate efficiently:
    i. Imposing a revenue cut by, for example, imposing a 'frontier shift', which is an expectation that companies will become increasingly efficient.
    ii. Based on an investigation or a comparison with other companies in the region, determining what costs comparable companies incur and designating these as 'efficient costs' (benchmark).
    iii. Applying a system such as profit-sharing, where the revenues are set and any higher or lower costs are taken partly into account in the revenues in a subsequent year.

ACM tries to strike a balance between these two basic principles.

52. If ACM chose to set the utility company's revenues at the level of its total costs, the utility company would be certain of being able to recoup the costs. The downside is that the utility company would have no incentive to save costs, because they would all be reimbursed through the tariffs. End-users could thus end up paying too much.

53. ACM could also focus to a maximum extent on the efficiency incentive by opting to base the revenues not on the utility company's out-of-pocket costs, but, for example, on a comparison with the costs of other companies. ACM could also lay down a utility company's revenues for a longer period (several years). In both scenarios, the utility company would have a bigger incentive to save costs, because by doing so it would have more money to spare over the period and could, temporarily, make more profit. In addition, the fact that it might have to bear (all or part of) any higher costs is a strong incentive to consider whether certain costs are really necessary. The drawback of this method is that the utility company's costs and revenues could diverge over the period since there would be insufficient link between costs and revenues, thereby resulting (temporarily) in high profits or big losses.

54. One option that takes both criteria into account (both cost-oriented revenues and an efficiency incentive) is the so-called profit-sharing method. This method bases the utility company's revenues on its out-of-pocket costs, including a reasonable return. If it subsequently turns out that the utility company actually incurred higher (or lower) costs, part of the difference would be for the account of the utility company and part for the account of the end-user.

55. This method ensures that a utility company has an incentive to save costs if possible. These cost savings will lead to lower revenues in later years and hence to lower tariffs, so end-users also benefit. But this also ensures that a utility company will not run into financial difficulties as quickly if costs do rise. In that case, the end-users will also pay part of the higher costs.

56. ACM has a degree of freedom when selecting a method. Besides the aforementioned requirements laid down in the Act, the following criteria are important when making this choice:
    - Feasibility: the method must be able to be implemented with the least possible burden on businesses. This is particularly important in the Caribbean Netherlands, because businesses are small in terms of scale and usually do not have a separate regulatory department like most businesses in the European part of the Netherlands.
    - Explainability: the method must be easy to understand for consumers and businesses.
    - Transparency: the method must be transparent. Consumers and businesses must be able to see how the tariffs have been set.
    - Individual responsibility of the utility company: ACM does not wish to step into the shoes of the company's executives by, for example, deciding exactly what costs can or cannot be incurred.

57. Of the methods described, ACM's preference is for profit-sharing, as in the first regulatory period. This method is relatively straightforward and meets the aforementioned criteria.

58. A simplified example to illustrate profit-sharing is as follows.[5] Suppose company A has USD 1 million of costs in 2019. The utility company's revenues for 2020 would then be set at USD 1 million. We then look at the utility company's actual costs. There are three scenarios:

[5] This example ignores the fact that normally there is a year's delay between the year in which costs were incurred and the year in which they are processed. We will return to this in Chapter 5.2.

i. The utility company incurred USD 1 million in costs, which is equal to the revenues. The revenues for the following year would then be set again at USD 1 million.
ii. The utility company incurred higher costs, for example USD 1.1 million, so it made a loss of USD 100,000 in that year. The profit-sharing method means that the utility company will have to bear part of this loss itself, for example half of it. The revenues for the following year are set at USD 1.1 million (the actual 2020 costs) plus USD 50,000 to compensate for half of the loss. The total revenues for the next year will therefore be USD 1.15 million.
iii. The utility company incurred lower costs, for example USD 0.9 million, so it made a profit of USD 100,000 in that year. The profit-sharing method means that the utility company can keep part of this profit itself, for example half of it. The revenues for the following year are set at USD 0.9 million (the actual 2020 costs). USD 50,000 is then deducted to return half of the profit to consumers. The total revenues for the next year will therefore be USD 0.85 million.

59. The profit-sharing method does justice to the utility company's own responsibility and creates an incentive to make cost savings. Cost savings eventually lead to lower tariffs for end-users.

5 Method of regulation

60. In this chapter, ACM describes how it lays down the production price and usage tariffs for electricity and drinking water. It first explains the length of the regulatory period, followed by the way in which the tariffs are determined and how it sets the reasonable return. Finally, ACM explains how the energy costs are determined.

5.1 Length of the regulatory period

61. Under Section 2.1, paragraph 1, of the Ministerial Decree on Electricity and Drinking Water in the BES Islands, ACM can choose to lay down the method for a period of three to ten years. The advantage of a longer period is that utility companies have certainty and clarity for a long period on the way in which the tariffs are set. Moreover, in case of a long period the workload for both the regulator and the regulated utility companies and other stakeholders is less burdensome. The advantage of a short regulatory period is that changes or adjustments to the method can be made relatively quickly.

62. For the first regulatory period, ACM opted for a three-year period. It wanted to gain experience of regulation in the Caribbean Netherlands before laying down the method for a long period. ACM has now gained this experience and has set the length of the second regulatory period at six years. In the draft method decision, ACM assumed a period of ten years, but based on the views of the utility companies ACM concluded that there is insufficient support for this. For this reason, ACM has adjusted this to six years. ACM expects this period to be sufficiently long to create a certain degree of stability in the method and also to (partially) meet the objections of the utility companies. This method therefore applies for the period from January 1st, 2020 to December 31st, 2025. Since the method is a policy rule, ACM may vary it (if particular circumstances turn out to be disproportionate). If compelling circumstances so require, ACM may also amend the method during the six-year period.

5.2 Determination of the tariffs

63. This section describes how the profit-sharing method results in tariffs. Four steps are involved:
    - Step 1: Laying down the fixed and variable costs for each activity;
    - Step 2: Laying down how the costs lead to revenues;
    - Step 3: Laying down how the revenues lead to tariffs;
    - Step 4: Laying down how any differences between costs and revenues are offset retrospectively.

Step 1: Laying down the fixed and variable costs of each activity

64. The tariffs must be based on costs. Before ACM determines a utility company's efficient costs, it first determines what the company's 'regulatory costs' are. These regulatory costs are the costs which ACM uses for regulatory purposes. ACM distinguishes between two categories of regulatory

costs for utility companies: capital costs (depreciation and a reasonable return on the invested capital) and operating costs. When determining the regulatory costs, in the first instance ACM will use the utility companies' audited financial statements. The reasonable return employed by ACM is based on an investigation by European Economics Research Limited.

65. In principle, ACM will always use the latest audited financial statements. In practice this means ACM will be using the 2018 costs as its starting point for calculating the tariffs for 2020.

66. It is possible that the financial statements do not contain all the information ACM needs to lay down the tariffs, or that not all costs have yet been allocated to the utility company's various activities. ACM will request this additional information from the utility companies. ACM can instruct a utility company to provide a statement from an independent auditor with the supplied information, to obtain assurance about the reliability of the regulatory costs.

67. Should this prove necessary in the future, ACM can specify more extensively and in greater detail what information is required to determine the regulatory costs. For this purpose, ACM can lay down Regulatory Accounting Rules (RAR) in consultation with the utility companies. These are similar to the RARs that ACM lays down in the European part of the Netherlands to regulate electricity and gas network operators.

68. ACM therefore determines the regulatory cost base using the financial statements and any additional information. It can then make adjustments to that base in order to arrive at the final regulatory cost base that is used in the subsequent steps. For example, when determining the regulatory costs ACM will not include any costs that were not incurred in implementing the statutory tasks. ACM can also make adjustments for reasons of comparability with other companies and/or consistency with other years. For example, ACM may calculate the value and depreciation of assets differently from the value and depreciation recorded in utility companies' financial statements. ACM applies the principle that assets are included in the regulatory asset base at cost and that any remuneration received is deducted from the capitalized expenditure. If a utility company has additional revenues from a regulated activity, outside the regulated tariff revenues, ACM offsets these revenues against the regulatory cost base. This is because these revenues are expected to cover part of the costs of the regulated activity, and if ACM did not deduct these revenues, this could lead to double compensation for the associated costs. In the production price and tariff decisions of the utility company concerned, ACM records any changes it has made to the data provided.

69. At the start of the regulation, ACM determined the initial value of the utility companies' assets. Each year ACM then adds the investments and deducts the depreciation, in order to arrive at the regulated asset value. ACM records this in the production price and tariff decisions.

70. ACM does not regard penalties as operating costs and deducts them when laying down the tariffs, which means that penalties (which can be avoided by management and therefore cannot be regarded as efficient costs) are not passed on to consumers. [3]

71. ACM will look critically at changes in provisions and not simply include them in the estimate of the operating costs. That is because changes made (allocations, withdrawals and/or releases) do not necessarily provide a reliable estimate of future costs. Where appropriate, ACM can, when estimating future costs, replace the changes in provisions with a cost estimate that is more in line with the expected future costs.

72. In the first regulatory period, ACM sometimes did not include incidental costs in the cost base when assessing the costs based on the financial statements, on the grounds that incidental costs from the past are in principle not good *estimators* of future costs. On the other hand, ACM has on several occasions included expected operating costs in the cost base for a future tariff year by assessing expected developments and the resulting expected operating costs jointly with the regulated utility companies. ACM believes that this approach, which was used in the first regulatory period, is valid and justified. Nevertheless, there are grounds for changing the emphasis in this assessment in the second regulatory period.

73. That is because ACM has noted that the regulated utility companies sometimes find it difficult to predict and substantiate the new operating costs that will arise in the forthcoming tariff year. This is due on the one hand to possible incidental costs that they anticipate and on the other hand to operating costs associated with new developments. The difficulty of estimating incidental costs is partly inherent in the unpredictability of *incidents* as such. In the case of operating costs resulting from new developments, the timing and the amount of those costs have often proved difficult to predict. If ACM took insufficient account of incidental costs and costs resulting from future developments because the regulated utility companies found it difficult to estimate them accurately, there would be a risk that the regulated utility companies' costs would not be sufficiently reimbursed over the longer term.

74. ACM therefore believes incidental costs should in principle be removed less rapidly from the cost base in the assessment of the financial statements at the start of the second regulatory period. This will also mean that when estimating future costs ACM will in principle be slower to include any operating costs that the utility company expects as a result of new developments. The incidental costs in the cost base are therefore used as an estimator of the expected incidental costs in the forthcoming year. The principle to be applied in the second regulatory period will be that past incidental operating costs will be used to determine future revenues, but fewer future developments will be factored into operating costs. With regard to the cost of new developments, we also refer to marginal 92.

75. ACM will continue to assess the cost base fully in terms of the validity of the costs as a result of incidents. This will ensure that inappropriate costs continue to be kept out of the cost base. ACM believes these costs should not be borne by the end-user.

76. Finally, the amount of the reasonable return is an important element when determining the capital costs. ACM equates this reasonable return with the usual economic return on capital. ACM determines this reasonable return using a methodology comparable to that used in the European part of the Netherlands. The reasonable return is determined on the basis of the WACC (Weighted Average Cost of Capital) methodology. ACM takes account of the circumstances of the utility

companies in the Caribbean region. It takes particular account of the risks that the utility companies incur in their business operations, and the markets in which they operate. In Annex 1, ACM describes the investigation method used and the resulting WACC. This WACC applies (unlike the rest of the method) for a period of three years. This is the period from January 1st, 2020 up to and including December 31st, 2022.

77. After the regulatory costs have been determined, the costs must be allocated objectively among the utility company's various activities for which ACM lays down the tariffs. ACM will ask the utility companies each year to submit a proposal to allocate the costs on the basis of transparent and objective criteria. In the proposal, a utility company can indicate how the costs are allocated and which allocation keys it uses. ACM will assess this proposal on the basis of generally accepted accounting principles. These assume, for example, that costs and assets are allocated in the first instance on the basis of demonstrable causality. These are therefore the direct costs. Costs that cannot be allocated in this way, i.e. indirect costs such as those of accommodation and other overheads, are allocated as consistently and transparently as possible in a way that reflects the use of production resources.

78. In the first instance, the utility company will allocate the costs between drinking water and electricity. If a utility company also has other activities, such as waste water treatment, the relevant costs must also be clearly distinguished (and eliminated). These costs must not be included in the regulatory cost base for electricity and drinking water. If they were, that would amount to a cross-subsidy, which would contravene the BES Electricity and Drinking Water Act.

79. The utility company then separates the production and distribution costs, both for drinking water and for electricity. Such a cost allocation must also be carried out when drinking water is transported, both through a network and by road.

80. Step 1 in this section results in an overview of the regulatory costs for a specific year divided into activities. ACM distinguishes the following tariff-regulated activities:
    - the production of electricity;
    - the distribution of electricity;
    - the production of drinking water;
    - the distribution of drinking water via the network; and
    - the distribution of drinking water by road.

81. ACM records this result in the production price and tariff decisions.

82. ACM is making an addition to the classification of costs as compared to the regulatory method for the first period. A new feature of this regulatory method is that ACM is clarifying how it deals with the dependency between volumes and costs. Step 4 of the method for arriving at tariffs includes a correction for volume growth. This requires the total costs per activity to be divided into a fixed and a variable part.

83. The assumption is that fixed costs are not dependent on the volume, and that variable costs change in line with the volume. Cost items that are partly variable can be divided into a fixed and a

variable part by means of an allocation (percentage). When assessing which costs are fixed and variable, ACM takes account of the fact that the period between the year of the cost base (actual volumes and costs) and the tariff year (future volumes and costs) is usually two years. That is because in normal economic circumstances costs become more variable as the term lengthens.

84. Examples of fixed costs are investments in generators, land purchases and costs associated with the governance of the utility company (management costs, Supervisory Board, audit of financial statements, shares of overheads, etc.). Examples of variable costs are fuel and lubricants or the hiring of personnel. For some costs there will be a fixed and a variable part, such as investments in network assets, personnel costs, shares of overheads, etc.

85. So as to determine which part of the costs is fixed and which part is variable, it is not only the term but also the tariff basis that is important.[6] For each activity, ACM has specified which metric will be deemed the primary tariff basis of the costs. The metrics are as follows:
    - for electricity production: kilowatt hour (kWh);
    - for electricity distribution: kilovolt ampere (kVA);
    - for the production of drinking water: cubic meter (m^3);
    - for the distribution of drinking water via the network: pipe diameter (expressed in inches); and
    - for the distribution of drinking water by road: m^3.

86. When laying down the share of fixed and variable costs for each activity, ACM will use available data and estimates made by the utility companies themselves. It is inevitable that this will be based partly on assumptions. ACM will endeavor to produce the most accurate estimates possible, in consultation with the utility companies. ACM will strive to ensure that the estimate, which will be made for the first time for the 2020 tariff year, can be applied for several years in the same way.

Step 2: Determining how the costs lead to revenues

87. The utility company's costs are not reimbursed like-for-like. If they were, there would be too little incentive for the utility company to make cost savings. Profit-sharing provides an incentive to save costs, as the utility company can keep part of the money saved. The cost savings then also benefit consumers, as the revenues and hence tariffs for subsequent years will be set at a lower level. This section explains how ACM carries out profit-sharing, and the way in which the costs ultimately lead to revenues. ACM performs this step for each activity, separating the production of electricity and drinking water as well as the distribution of electricity and drinking water (also divided into network and road delivery).

88. In the case of profit-sharing, part of the difference between the estimated and actual costs is for the account of the utility company itself. A specific percentage applies for this purpose. In principle, this could differ depending on the island or the utility company concerned. For the first regulatory period, a percentage of 50% was used for all utility companies. Since there is no reason at this

[6] Wording changed based on opinion 16.

stage to apply different percentages for each public entity or utility company, ACM has opted to continue with 50%, whether the utility company makes a profit or a loss. In concrete terms, this means that if a utility company incurs lower costs than previously determined – thus making a profit through efficient operations – it is entitled to keep 50% of its profit and will pass on 50% to consumers in the form of a reduction in future revenues. The same logic also applies in the case of a loss, if the utility company incurred higher costs than previously determined. In that case, the utility company must bear 50% of that loss itself and may pass on 50% to end-users in the form of an increase in future revenues. Reductions or increases in revenues are incorporated in principle in the next tariff decisions which ACM adopts for a full year. The profit-sharing is therefore usually taken into account two years after the year to which the profit-sharing is applied. The profit-sharing for 2020 (the first year of the second regulatory period) is therefore expected to be taken into account in the tariffs for 2022.

89. In the profit-sharing, the revenues are based on the utility company's established costs, as determined in step 1. An element of every regulatory method in which revenues are based on actual costs is that there is always a (slight) time lag, as the costs for a particular year can only be ascertained retrospectively, whereas we determine the revenues for that year in advance. The costs which a utility company incurs in 2018, for example, will not be known until 2019, and the revenues for 2020 must be determined in 2019. This means that the costs and the revenues will always be at least two years apart. Things may have changed in the meantime. ACM takes account of any differences that may arise in those two years between the cost base and the tariff revenues. In this method, it states how and for which cost items it will do so. In the production price and tariff decisions, ACM then details the resulting adjustments to the expected costs.

90. The energy costs for electricity and water production can fluctuate widely. For this component, ACM estimates the costs for the forthcoming years in a specific way. See section 5.4.

91. In specifying the revenues used to determine the tariffs, ACM can take account of developments in the costs or activities relative to the cost base. ACM will take account of changes (increase or decrease in revenues relative to costs) in the event of *major occurrences*. Examples of major occurrences are: first use of a new production site or installation (for example to increase sustainability) or the start-up or termination of an activity. If an occurrence qualifies as major, ACM will try to estimate the associated cost increase or reduction as accurately as possible and to take it into account when laying down the tariffs. ACM will thus ensure that the set tariffs already include remuneration for the costs expected to result from this major occurrence. This instrument is intended for major occurrences that are isolated and recognizable as such. This instrument is not suitable or intended to correct minor inaccuracies in the cost estimate. Such inaccuracies in the estimates are inherent in the predetermination of the costs and are ultimately compensated (in part) by the application of profit-sharing.

92. A provision to that effect also existed in the previous regulatory period, but in the forthcoming period ACM will apply it in a different way, since in the first period ACM also took account of changes in the costs associated with price rises and volume growth. ACM has sometimes also included 'generic rises' in investments in the estimates, even though they were not demonstrably associated with a major occurrence. Compared to the first period, ACM will be more restrained in

including additional costs in the second regulatory period. ACM explains below how it will apply this instrument.

93. First it is important that the utility companies themselves specify and substantiate the major occurrences which ACM must take into account in the production price and tariff decisions. This must be done at the latest when submitting the tariff proposal.[7] The utility company must explain what occurrence is involved and what its effects are. By way of substantiation, it must then provide sufficient reliable data concerning the expected additional costs. The utility company must also provide a substantiated explanation of any cost savings resulting from a major occurrence. The burden of proof associated with the claim of a major occurrence therefore rests in principle with the utility company.

94. ACM will then assess the reported major occurrences. ACM will record this assessment in the production price and tariff decisions. It will apply the following conditions for the inclusion of the associated costs in the tariffs:
    - the occurrence must be sufficiently certain and its effects must be able to be determined with sufficient certainty[8];
    - the occurrence leads to a considerable rise or fall in costs;
    - the costs have not already been reimbursed in another way (for example through compensation for general price rises via the consumer price index (CPI) or volume growth); and
    - the additional costs can be accurately estimated and well isolated from the previously determined regulatory cost basis.

95. ACM will explain in more detail why it no longer deems cost changes resulting from price rises (including wage costs) and volume growth to be major occurrences. Price rises over the longer term are covered sufficiently by the CPI, because they are related to the general price development in the Caribbean Netherlands. Costs associated with volume growth are already covered with effect from this new regulatory method since ACM only applies a volume correction to revenues to cover the *fixed* costs. Costs associated with a higher volume are therefore reimbursed to the utility company due to the fact that it can charge the tariff more frequently and can retain those higher revenues.

96. ACM takes inflation on the islands into account and applies an inflation adjustment to translate costs for a particular year into revenues in another year. The level of inflation is determined using the consumer price index (CPI) calculated by Statistics Netherlands for the islands of the Caribbean Netherlands.

97. ACM has considered taking into account efficiency improvements and imposing an estimated 'frontier shift' on the utility companies. This would mean, for example, that ACM reduces the costs for 2018 by 2% annually in order to determine the estimated costs for 2020. That is due to the

[7] It is preferable to seek prior contact concerning a major occurrence so that ACM and the company can jointly determine what is involved and which data ACM requires in order to assess it.
[8] If applicable, the effects will be calculated pro rata for part of the year.

general expectation that each utility company will be able to operate more efficiently every year as a result of technological improvements and increasing labor productivity. A frontier shift percentage can be based on sector-wide information on realized productivity improvements. Since ACM prefers to keep the regulation pragmatic and transparent, and a frontier shift would require a detailed investigation into improvements in comparable sectors and businesses, ACM will not impose a frontier shift at this stage. Furthermore, even without a frontier shift the profit-sharing method incentivizes the utility companies to take advantage of efficiency benefits resulting from technological improvements.

98. This second step will provide the total revenues for each activity for a specific year. These revenues can be subdivided into a fixed and a variable part on the basis of the underlying costs. In the production price and tariff decisions, ACM determines the total revenues, including this division.

Step 3: Laying down how the revenues lead to tariffs

99. In this step, ACM allocates the revenues from Step 2 among the different categories for which tariffs are set. First the general method is explained, after which details are given of specific intermediate steps for production and distribution. All tariffs are maximum tariffs: the tariffs which the producer or distributor will charge *as a maximum*. For the sake of readability, this is not repeated in each case.

100. In order to translate the revenues determined in step 2 into a tariff, the total amount of income for a particular activity is divided by the volume for that activity[9]. The volume used for this depends on whether the income serves to cover the fixed or variable costs. Because in most cases both will be involved, the rate is determined by determining the coverage per unit for both fixed and variable costs. We call this coverage a tariff component. The final tariff is then created by adding up these two tariff components. If there is a major occurrence within the activity in question, a third tariff component is also created for that activity, which is added to the first two.

101. The method for determining the three tariff components for covering the fixed costs, the variable costs and the costs of a major occurrence is as follows:
    - For the tariff component meant to cover *fixed* costs, the aim is to obtain the best possible estimate of the expected volume in the year for which ACM sets the tariffs. The fixed costs are then divided by this estimate of the expected volume. The better the estimate of the expected volume, the smaller the correction for over- or undercoverage of the (efficient) fixed costs (as referred to in marginal 113). After all, the total amount that the utility company receives to cover for the fixed costs should not depend on the realized volume.
    - The revenues for the tariff component that cover the variable costs is expressed as an amount of revenues *per unit of output*. If these revenues are based on the actual costs from year t-2, ACM also uses the actual volume from year t-2 in order to calculate the correct efficient costs per unit (the tariff component). That way ACM does not need to

[9] The text of this marginal and the next one was changed according to opinion 16.

estimate the volumes, because the coverage of the variable cost should one-on-one correspond to the volume development. For this reason ACM does not apply any volume correction to the income that serves to cover the variable costs, as is also described in marginal 113.

- If there is a major occurrence in a particular activity, ACM will also assess the additional revenues related to this occurrence and whether the underlying costs that come with it are fixed or variable. On that basis, ACM will determine which estimate of the volume fits in best with the new situation in the year for which the tariffs are being laid down. If the production situation changes as a result of a major occurrence, for example, it is logical to base the estimate of the volumes also on this new situation. The tariff component to cover for the cost for this major occurrence then arises by dividing the expected additional costs by the corresponding expected volume.

102. All estimates of volumes must be reliable and properly substantiated. The utility company must supply an overview of the expected volumes no later than in the tariff proposal. ACM assesses the supplied information, checks whether the estimates are reasonable, and records the volumes used in the production price and tariff decisions.

103. This step is relatively simple for determining the production prices, as only one maximum tariff applies that the producer may charge to the distributor for each kWh of electricity or m^3 of drinking water. ACM lays down the energy costs individually as a component of the production price (see section 5.4). Where there are multiple producers operating on an island, ACM will also lay down multiple production prices.

104. In the case of distribution, the calculation is more complicated. This is because in the case of distribution there are different tariff categories that have to cover various costs. For electricity and drinking water, the tariff categories are as follows:

- The fixed usage tariff, to cover the network costs, including measurements and preventing and fixing malfunctions. The relevant volume for electricity here is the number of kVA of the various connections. In the case of drinking water, the volume is based on the pipe diameter in inches.
- The variable usage tariff, to cover the production price that the distributor pays to the producer, expressed in the volume unit kWh for electricity and m^3 for drinking water.
- The connection tariff, to cover the costs of a new connection to the network. In this category, the numbers of connections are added together, and a distinction can be made in terms of the size of the connection.
- The reconnection fee, to cover the costs of reconnecting an end-user who was disconnected. Here the volume is the number of reconnections.

105. Within a tariff category, a distributor may charge different tariffs for different groups of end-users, provided the distinction is justified by the costs that the utility company incurs for those specific groups of end-users. For example, a connection with a higher threshold value also leads to higher costs for the distributor, so the distributor can charge higher tariffs for larger connections.

106. In order to calculate the tariffs for the various tariff categories, the distributor goes through the following steps:
    i. First, the revenues are allocated to the individual tasks within the distribution activity (electricity or water) on the basis of the underlying costs (fixed and variable).
    ii. In the tariff proposal, the distributor states which (technical) categories it wishes to apply.
    iii. The distributor can then make a tariff proposal for each tariff category by dividing the allocated revenues by the associated volume.

107. ACM assesses the revenue allocation, the tariff categories and the resulting tariffs and records these in the tariff decisions. ACM chooses to record the categories in the tariff decisions rather than in the method, because these categories may change during the regulatory period.

108. In addition to the four tariff categories referred to above, specifically for electricity on Bonaire there is also the Pagabon tariff, a special tariff for end-users with a prepaid electricity supply. There is also the road transport tariff for drinking water on Bonaire and St. Eustatius for drinking water that is distributed by truck.

109. End-users who have Pagabon do not pay a fixed usage tariff. In order to ensure that the distributor can recover its fixed costs, a Pagabon surcharge is applied to the variable usage tariff for electricity. The Pagabon surcharge is calculated by dividing the fixed usage tariff by the standard 'Pagabon consumption'. This consumption is defined in Section 3.4 of the BES Electricity and Drinking Water Regulation.

110. The tariff for drinking water distributed by truck (in places where there is no distribution network) is laid down as follows:
    i. The revenues for drinking water distributed by truck are converted into an amount per m^3 of drinking water by dividing it by the associated volume in m^3. In this step, it is therefore assumed that all underlying costs are variable.
    ii. The tariff per m^3 for the end-user consists of the production price for drinking water plus the costs per m^3 for transportation (see also Section 3.18, paragraph 3, of the BES Electricity and Drinking Water Act).

111. Section 3.14, paragraph 4, of the BES Electricity and Drinking Water Act specifies that ACM will determine the tariffs taking into account the subsidies referred to in Section 5.1 of the BES Electricity and Drinking Water Act. The way in which the subsidy is included in the determination of the tariffs is recorded by ACM in the annual production price and tariff decisions.

112. This third step results in the maximum tariff that the utility company is allowed to apply in a specific year for each activity and each individual category. ACM records this in the production price and tariff decisions.

Step 4: Laying down how any differences between costs and revenues are offset retrospectively

113. The 'profit-sharing' method incentivizes utility companies to operate efficiently, for example by realizing cost savings. This is done by retrospectively assessing the difference between the costs estimated by ACM (on which the revenues are based) and the costs incurred by the utility

company. A percentage of this difference is then offset against the revenues in a subsequent year. In the calculation of this difference, ACM takes account of the effects of higher or lower volumes. The impact that has on the revenues is first corrected before profit-sharing is applied. In the calculation of this volume correction, due account is taken of the proportion of fixed and variable costs, as described in step 1. Following an opinion of WEB (see opinion 24), ACM adds to this that it will also take into account the extent to which tariff subsidies are or are not dependent on volume developments. ACM will only correct the revenues that are intended to cover the fixed costs. Revenues intended to cover the variable costs should move in line with the volume, so there is automatically appropriate cover for increases or decreases in variable costs.

114. After the volume correction has been applied, ACM assesses the difference between the estimated costs and the actual (corrected) costs. ACM looks individually at the fixed costs and the variable costs, as the fixed costs are calculated retrospectively as a total amount, whereas the variable costs are expressed as an amount of costs *per unit of volume.* The total difference between the estimated and actual costs is multiplied by the profit-sharing percentage. The result is a correction amount for profit-sharing to be applied to the revenues, which in the subsequent calendar year is included in step 2 of the determination of the tariffs for that calendar year. ACM records this calculation in the production price and tariff decisions.

115. With regard to profit-sharing, there are a number of specific costs which ACM treats in a special way:
    - Profit-sharing is applied to the costs of network losses, in the following way. The profit-sharing amount is determined separately by calculating the difference between on the one hand the amount that the distributor has generated in revenues to cover network losses and on the other hand the actual costs of the network losses. The cover is based on the estimated network loss percentage and the previously determined production price. The actual costs are based on the actual network loss percentage and the weighted average production price ultimately realized over the year that applies to the purchase of the network losses by the distributor.[10] Both amounts are based on the volume ultimately realized (in kWh or m^3).
    - In the draft method decision, ACM indicated that it will not apply profit sharing to doubtful debts. In response to the opinion 21, ACM decided to apply profit sharing to the costs of doubtful debts. The cost of doubtful debts are thus treated in the same way in the profit sharing as the regular costs, so there is no longer a special application of the profit sharing. ACM reserves the option to apply a maximum norm when estimating of the costs of doubtful debts, as was also described in the draft method decision.

116. If as a result of an unforeseen, extreme circumstance (*force majeure*) a utility company has incurred extra costs, ACM will calculate these extra costs retrospectively and they can therefore be recouped fully through tariffs in a subsequent year (or in subsequent years if there are grounds for spreading the costs over multiple years). A circumstance can only be deemed to constitute *force majeure* if it is beyond the company's control, it has a major impact, and the company could

[10] In the case of electricity, this production price may change during the year and may also differ depending on the producer if there are multiple producers. A weighted average production price over the whole year is therefore used.

not reasonably expect that it would arise. If a utility company believes that a circumstance should be deemed to be *force majeure*, it must report it as soon as possible to ACM, after which ACM will assess whether it does indeed constitute *force majeure*. A utility company must make every effort to record the costs resulting from this circumstance separately as far as is reasonably possible.

117. Conversely, in unforeseen extreme situations ACM may also carry out a full retrospective calculation of part of the previously permitted revenues. In that case, ACM applies a correction to the previously attributed revenues and will deduct this from the tariffs of subsequent years. ACM will only do this in cases where there was an incorrect estimate of additional costs resulting from a major occurrence, as defined previously in this section. ACM can apply this retrospective calculation of revenues, for example, if a major occurrence for which allowance has been made in the tariff ultimately does not materialize or is delayed. ACM thus prevents end-users overpaying if costs have been incorrectly estimated. If ACM calculates revenues retrospectively, it will of course justify doing so in the production price and tariff decisions.

118. Finally, it is possible that after the end of a tariff year it is ascertained that the tariffs in that year were based on incorrect data or an incorrect calculation. In this case, ACM may set the material effect of the use of incorrect data or an incorrect calculation against the utility company's revenues (and hence the tariffs) in a subsequent year. ACM assesses which errors are eligible for such treatment and in such cases will include an explanation in the production price and tariff decisions.

119. When settling corrections that relate to income or costs from previous years, ACM takes into account the time effect between the year on which te correction is made and the year in which the correction takes place. ACM does this by correcting corrections for years for inflation.

5.3 Calculation of the reasonable return

120. In the WACC annex (Annex 1), ACM describes how the WACC is determined for the Caribbean Netherlands.

5.4 Energy costs

121. Energy costs as part of the production price apply to both drinking water and electricity. In the case of drinking water, the energy costs are the electricity costs that have to be incurred to produce drinking water. In the case of electricity, they are the costs of the diesel required to produce electricity using diesel generators.

122. The BES Electricity and Drinking Water Act sets out a number of principles for determining the energy costs as part of the production price:

- The production price includes the energy costs (Section 2.5, paragraph 2).
- The energy costs can be determined as a monthly variable part of the production price (Section 2.5, paragraph 3).

- The variable usage tariff takes account of the production price (Section 3.17, paragraph 1).
- The variable usage tariff can be adjusted on January 1st and July 1st (Section 3.14, paragraph 6).

How often does ACM determine the energy costs?

123. Oil prices can fluctuate (widely). This must not lead to wide tariff fluctuations or liquidity problems for the producers. Currently, the electricity producers have the possibility of adjusting the tariffs monthly, on the basis of changing fuel costs.

124. ACM will answer the following questions with regard to energy costs:
- Are there grounds for determining energy costs as a monthly variable part of the production price?
- Are there grounds for adjusting the variable usage tariff twice a year?
- Is the same approach used for drinking water and electricity?

ACM will describe the consequences and considerations relating to these choices.

125. Setting the energy costs as a monthly variable part of the production price has the following consequences. ACM will *de facto* set the production price per month. It may vary each month, on the basis of a formula set out in the method. The distributor will pay the producer this variable production price each month for the quantity of electricity and drinking water produced. However, the distributor cannot take this into account monthly in the variable usage tariff, as Section 3.14, paragraph 6, of the BES Electricity and Drinking Water Act only allows this to be done at the most every six months.

126. The way in which ACM determines the energy costs results in companies ultimately being remunerated for the energy costs in all cases, regardless of monthly variations. ACM's decision on whether to allow monthly variations only has consequences for *the time* at which the production companies recoup these costs, not for the question of *whether* they can recoup them. ACM's decision is therefore mostly informed by the question of whether companies themselves are capable of pre-financing any losses in the case of increasing fuel prices, or whether that would result in a disproportionate financial disadvantage for the companies. Another question relevant to that decision is whether consumers may find themselves confronted with large tariff increases if it were decided to offset the energy costs on an annual basis only. On the other hand, less frequent adjustments may also result in more stable tariffs, as any tariff increases and decreases may partially cancel each other out.

127. ACM uses the possibility offered by the legislature of laying down the energy costs for electricity as a monthly variable part of the production price. ACM believes the financial risk to producers in the pre-financing of a rising fuel price during a full year is disproportionately high.

128. The variable usage tariff for electricity that distributors are allowed to charge is adjusted by ACM every six months, on January 1st and on July 1st. Producers can pass on any fuel price adjustments to the distributor on a monthly basis, while distributors can take them into account in

the variable usage tariff for end-users on a six-monthly basis.

129. In the case of drinking water, the energy costs are equivalent to the amount of electricity consumed (kWh) multiplied by the variable usage tariff (USD/KWh) plus the fixed usage tariff (USD/month). The fixed usage tariff is fixed for the entire year. Since the variable usage tariff is only adjusted every six months, ACM anticipates that in the case of drinking water the variation in energy costs will not be so great as to justify a monthly adjustment, as is the case for the fuel price for electricity. Companies would have to be able to pre-finance this adjustment themselves, as the energy costs are calculated retrospectively.

How does ACM predetermine the fuel costs?

130. For fuel purchases, ACM would ideally like to give production companies an incentive to purchase as efficiently as possible. There is no such incentive if fuel costs are reimbursed on a like-for-like basis.

131. Having regard to the desired incentive, ACM would like to investigate if and how the efficient purchasing of fuel can be incentivized. During the forthcoming regulatory period, ACM may investigate the efficiency of fuel purchasing. After consultation, the results of this investigation will be incorporated in the first possible production price decisions.[11]

132. ACM will take the purchase price of fuel for electricity production into account each month in the production price. ACM records the level of the production price in the production price decision. This production price consists of two parts: the fuel component and the other costs.

133. The other costs as part of the production price consist of the capital costs and the operating costs necessary for the production of electricity. In order to determine the price per kWh, ACM goes through the steps described in section 5.2. The profit-sharing system is used here.

134. The fuel component comprises the average fuel costs per kWh that a producer is expected to incur. ACM lays down a single fuel component for all production, i.e. including solar and wind energy production. ACM calculates the fuel component on the basis of the following data:
- the estimated fuel efficiency: the number of liters of fuel that the producer requires to produce one kWh;
- the estimated fuel mix: the ratio of different types of fuel used, if the producer uses different types of fuel[12];
- the estimated share of fuel production: the share of the production volume that is produced with fuel relative to the total production, including solar energy and wind energy production; and
- the most recent fuel price: the price per liter of fuel that the producer paid for the fuel used in the most recently concluded purchase agreement for that fuel, possibly with a further breakdown by type of fuel.

[11] Wording changed based on opinion 28.
[12] Different diesel generators may require different types of diesel for production, such as heavy fuel oil (HFO) or light fuel oil (LFO).

135. The ACM sets the estimated fuel efficiency in the production price decision. Should it emerge that the producer has achieved a higher or lower fuel efficiency than previously estimated, then ACM will include a retrospective calculation in the determination of the production price for the following year.

136. In the production price decision, ACM records the share of production that is expected to be generated with fuel. ACM bases this forecast on the producer's actual and/or estimated figures. Should it subsequently turn out that a higher or lower share of production has taken place using fuel, ACM will include a retrospective calculation in the determination of the production price for the following year.

137. As described in marginal 127, ACM considers the risk of varying fuel prices to be disproportionately high for the producer. The fuel component formula includes a monthly variable part to cover this risk, the most recent fuel price.

138. The fuel component, expressed in USD per kWh, is then calculated on the basis of the following formula[13]:

$$\text{Fuel component}_{\text{month t}} = \text{estimated fuel efficiency} \times \text{estimated share}_{\text{production with fuel}} \times \text{fuel price}_{\text{most recent}}$$

139. ACM explains the functioning of the fuel component formula on the basis of the following example.

140. For a producer, ACM has the following data to determine the production price for 2020:
- the total production is forecast to be 10,000,000 kWh;
- the production mix is expected to comprise 40% solar energy production and 60% production with diesel generators;
- the estimated fuel efficiency of the diesel generators is 0.25 liters of diesel per kWh;
- the purchase price of one liter of fuel, based on the most recent purchase price, is USD 0.80; and
- the other production costs total USD 500,000 for the full year.

141. Based on these data, ACM determines the components of the production price to be:
- USD 0.05 per kWh for the other production costs (USD 500,000 / 10,000,000 kWh); and
- USD 0.12 per kWh for the fuel component (0.25 liters of diesel per kWh x 60% estimated production with diesel x USD 0.80 per liter).

The total production price as at January 1st, 2020 is then USD 0.17 per kWh.

[13] No distinction is drawn according to the type of fuel in this formula. If applicable, the formula can be extended by performing the same calculation for each type of fuel, and then adding the individual components together in proportion to the share in the fuel mix to arrive at the composite fuel component for month t.

142. This production price can first be adjusted in February 2020. In January, the producer calculates the fuel component for February based on the most recent fuel price at that time. The most recent fuel price in January is that of December 2019. On the basis of the fuel price, the fuel component of the production price will change in February 2020.

143. If the purchase price for the fuel in December 2019 is USD 1.00 per liter, the components of the production price will change as follows on February 1st, 2020:
- USD 0.05 per kWh of other production costs remains the same; and
- USD 0.15 per kWh for the fuel component (0.25 liters of diesel per kWh x 60% estimated production with diesel x USD 1.00 per liter).

The total production price as at February 1st, 2020 is then USD 0.20 per kWh.

144. As a result of the monthly update of the fuel price in the fuel component formula, the total production price rises from USD 0.17 per kWh to USD 0.20 per kWh. In February, the producer passes on the December rise in the fuel price to the distributor.

145. With the application of the fuel component formula, the producer therefore applies the fuel component of the production price as an (internal) transfer price each month. The producer is required to keep the following data in the internal records:
- the purchased quantity of fuel on a monthly basis;
- the fuel price as used in determining the monthly fuel component;
- the weighted average purchase price of fuel on a monthly basis; and
- the amount of fuel consumed per month.

When appropriate, ACM may also request the purchase agreements and paid invoices from the producer.

How does ACM carry out a retrospective calculation of the fuel costs?

146. ACM makes a prior assessment of the fuel costs for the producer and the distributor. The fuel price fluctuates. The legislature has made it possible to pass on the resulting risk incurred by the producer to the distributor. The producer makes this adjustment on the basis of the formula as described in marginal 1388 by updating the most recent fuel price in accordance with the most recently concluded purchasing agreement for that fuel.

Distributor

147. ACM makes a prior estimate of the purchase costs based on the fuel component for the distributor. The estimate of the fuel component is recorded in the production price decision for each producer, on the basis of the most recent fuel price for that producer. On the basis of this estimate, the estimate of the purchase costs for the distributor is recorded in the tariff decision.

148. The producer can amend the fuel component monthly on the basis of the fuel component formula. The invoicing from the producer to the distributor takes place on the basis of the actual purchased volume (kWh) per month. As a result of the variable usage tariff, the distributor may have passed on too much or too little in purchase costs to the end-users because the fuel component may differ each month.

149. ACM calculates the monthly purchase correction for the fuel part of the production price as the difference between the estimated fuel component of the production price as recorded in the tariff decision and the actual fuel component of the production price for that month, multiplied by the purchased volume (kWh) for that month. ACM thus effectively applies a correction to the distributor's purchase costs for the fluctuating fuel price. ACM uses the following formula:

Purchase correction for fuel part $_{\text{month t}}$ = (fuel component $_{\text{month t}}$ – estimated fuel component $_{\text{tariff decision}}$) x purchased volume in kWh $_{\text{month t}}$

150. ACM takes the purchase correction into account in the variable usage tariff with effect from July 1st or January 1st. ACM takes account of the differences up to and including the month for which data are known. In practice this will mean that ACM passes on the difference in purchase costs in the period from November to April inclusive in the tariff decision dated July 1st. ACM passes on the difference in the purchase costs in the period from May to October inclusive in the tariff decision dated January 1st.

Producer

151. For the production price decision, ACM makes an estimate of what the fuel costs will be for the producer based on the most recent fuel price. It uses this estimate to determine what monthly remuneration the producer will receive from the distributor. ACM uses the formula as described in marginal 138.

152. ACM retrospectively assesses the actual fuel costs in that year and applies a correction for the fuel costs which have not yet been settled with the distributor. ACM calculates the difference in the costs which the producer has already been able to pass on to the distributor and the actual fuel costs incurred. The correction comprises the difference between the estimated and actual fuel price per month, the difference between the estimated and the actual share of production with fuel, and the difference between the estimated and the actual fuel efficiency. In this way, the producer covers all its fuel costs and ACM eliminates the price risk for the producer.

153. The reimbursed fuel costs are the fuel costs which the producer has already been able to invoice to the distributor using the fuel component formula. Each month ACM calculates the reimbursed fuel costs by multiplying the actual production volume including solar and wind energy production by the fuel component for that month. ACM uses the following formula:

Reimbursed fuel costs $_{\text{month t}}$ = production volume $_{\text{total; month t}}$ x fuel component $_{\text{month t}}$

154. ACM calculates the actual fuel costs by multiplying the actual fuel price by the actual fuel efficiency and the actual production volume using fuel. ACM uses the following formula:

Actual fuel costs $_{\text{month t}}$ = fuel price $_{\text{actual month t}}$ x
production volume with fuel $_{\text{month t}}$ x actual fuel efficiency $_{\text{actual month t}}$

155. For the retrospective calculation of fuel costs, ACM would ideally like to test the efficiency of production with fuel, so as to only compensate the efficient fuel costs. At the start of the second

regulatory period, ACM has not yet developed a standard for this efficiency. As long as ACM has not yet established a standard, ACM will calculate the realized fuel costs on the basis of the realized fuel efficiency, as described in marginal 154. The ACM keeps the possibility open to investigate an appropriate standard and to apply it from that moment on. In that case, the realized fuel costs are no longer reimbursed, but only the efficient fuel costs.

156. Currently ACM does not assess the actual efficiency achieved in production from solar and wind energy.. ACM has not yet developed a framework against which the efficiency of renewable electricity production can be tested. This requires further investigation. When the results of such an investigation are known, ACM will assess whether there are grounds for including these results in the determination of the production price. If ACM opts to do so, this may lead to adjustments to the above formulas. In that case, stakeholders are given the opportunity to respond. ACM will then record this in the first possible production price decision.[14]

6 Provisions

The Netherlands Authority for Consumers and Markets lays down the method, as referred to in Section 2.5, paragraph 4, and Section 3.14, paragraph 5, of the BES Electricity and Drinking Water Act, in accordance with the description in this document.

This method applies from January 1st, 2020 up to and including December 31st, 2025.

This method will be announced in the Government Gazette. The Netherlands Authority for Consumers and Markets will also publish this decision on its website.

The Hague,

The Netherlands Authority for Consumers and Markets
on its behalf,

original signed

Dr. F.J.H. Don
Member of the Board

[14] Wording changed based on opinion 27.

Having regard to Section 7, paragraph 1, of the BES Administrative Justice Act, this method cannot be subject to an (individual) judicial or administrative appeal. Interested parties who are directly affected by the tariff decisions adopted by ACM on the basis of this method can resort to legal remedies with regard to those decisions. They can then put forward arguments against this method in their judicial or administrative appeal.

Annex 1: WACC

This annex is attached as a separate document.

Annex 2: Opinions on draft method decision

This annex is attached as a separate document.

Annex 3: Opinions on draft WACC-method

This annex is attached as a separate document.