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**Datasheet for the decision  
of 28 November 2023**

**Case Number:** T 1139/21 - 3.3.08

**Application Number:** 12704710.8

**Publication Number:** 2675904

**IPC:** C12P5/02, C12M1/107, C10L3/08

**Language of the proceedings:** EN

**Title of invention:**  
System and method for storing energy in the form of methane

**Patent Proprietor:**  
Krajete GmbH

**Opponent:**  
MicrobEnergy GmbH

**Headword:**  
System for storing energy in the form of methane/KRAJETE

**Relevant legal provisions:**  
EPC Art. 100(a), 54(2), 56  
RPBA 2020 Art. 12(4), 12(6)

**Keyword:**

Novelty - (yes)

Inventive step - (no)

Late-filed request - circumstances of appeal case justify  
admittance (yes)



**Beschwerdekammern**

**Boards of Appeal**

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**Case Number: T 1139/21 - 3.3.08**

**D E C I S I O N**  
**of Technical Board of Appeal 3.3.08**  
**of 28 November 2023**

**Appellant:** MicrobEnergy GmbH  
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**Decision under appeal:** **Decision of the Opposition Division of the  
European Patent Office posted on 26 May 2021  
rejecting the opposition filed against European  
patent No. 2675904 pursuant to Article 101(2)  
EPC**

**Composition of the Board:**

**Chairwoman** T. Sommerfeld  
**Members:** R. Morawetz  
A. Bacchin

## **Summary of Facts and Submissions**

- I. European patent No. 2 675 904 ("the patent") is based on European patent application No. 12 704 710.8. The patent is entitled "*System and method for storing energy in the form of methane*".
- II. An opposition was filed against the granted patent. The patent was opposed under Article 100(a) EPC on the grounds of lack of novelty (Article 54 EPC) and inventive step (Article 56 EPC) and under Article 100(b) EPC. The opposition division rejected the opposition.
- III. The opponent (appellant) appealed the opposition division's decision.
- IV. In the statement setting out the grounds of appeal the appellant maintained its objections as regards lack of novelty, inventive step and sufficiency of disclosure against independent claim 8 as granted. No objections were raised against independent claim 1 as granted and its dependent claims 2 to 7.
- V. In reply to the statement of grounds of appeal, the patent proprietor (respondent) maintained the patent as granted as its main request, re-submitted sets of claims of auxiliary requests 1 to 3 as submitted before the opposition division on 19 March 2020, and submitted sets of claims of new auxiliary requests 4 and 5. It also submitted descriptions adapted to the sets of claims of auxiliary requests 1 to 5.

Claim 8 of the main request reads as follows (for ease of reference, labels (8.1) to (8.6.) have been added by

the board to indicate the individual feature groups of claim 8):

"(8.1) *A system for storing energy in the form of methane comprising*  
(8.2) *at least one device for generating electric energy from a renewable and/or non-renewable energy source,*  
(8.3) *at least one device for producing hydrogen and/or oxygen by the electrolysis of water and/or brine, and*  
(8.4) *at least one bioreactor comprising a reaction vessel suitable for growing, fermenting and/or culturing methanogenic microorganisms,*  
(8.5) *the bioreactor further comprises at least one device for measuring the head pressure and the off-gas concentration and*  
(8.6) *at least one device for adjusting or maintaining the partial pressure ratio of hydrogen to carbon dioxide inside the reaction vessel.*"

Claim 8 of auxiliary requests 1 to 3 is identical to claim 8 of the main request.

Claim 8 of auxiliary request 4 differs from claim 8 of the main request in that the alternative of at least one device for generating electric energy from a non-renewable energy source has been deleted, meaning that the claim reads "A system for storing energy in the form of methane comprising at least one device for generating electric energy from a renewable ~~and/or non-renewable~~ energy source, ..." (amendments with respect to claim 8 of the main request are indicated by strikethrough).

Claim 8 and all its dependent claims have been deleted

in auxiliary request 5.

- VI. Both parties filed further submissions concerning admittance of auxiliary requests 4 and 5 and novelty and inventive step of claim 8 of the main request.
- VII. The board scheduled oral proceedings, in accordance with the parties' requests, and issued a communication under Article 15(1) RPBA.
- VIII. The following document is referred to in the present decision:
- D1 US 2009/0130734
- IX. The parties' submissions, insofar as they are relevant to the present decision, are discussed in the Reasons for the decision, below.
- X. The appellant (opponent) requested that the decision under appeal be set aside and that the patent be revoked. The appellant further requested that auxiliary requests 4 and 5 not be admitted and considered in the appeal proceedings.

The respondent (patent proprietor) requested, as a main request, that the appeal be dismissed and the patent be maintained as granted or, alternatively, that the patent be maintained in amended form on the basis of one of auxiliary requests 1 to 5.

## **Reasons for the Decision**

*Main request - claim 8*

*Claim construction - the claimed invention*

1. The board adopts the normal rules of claim construction, in which the terms used in the claims are given their broadest technically meaningful interpretation in the overall context in which they appear (see also Case Law of the Boards of Appeal, 10th edition 2022, "Case Law", II.A.6.1).
  
2. The board considers that claim 8 does not provide for a spatial relationship between the device for generating electrical energy (feature group 8.2), the device for producing hydrogen (feature group 8.3) and the bioreactor (feature group 8.4). The board therefore agrees with the appellant that the device for generating electrical energy required by claim 8 can be provided at a location that is independent of the location of the device for producing hydrogen as well as independent of the location of the bioreactor, and that it can be a power plant, located at any site, that feeds the electrical energy produced there into the national power distribution network. The electricity required for electrolysis can be drawn from the socket. The board's understanding here is in line with the teaching of the patent (see paragraph [0030]).
  
3. As regards feature group 8.3, it is undisputed that one of the alternatives covered by the claim is a device for producing hydrogen through the electrolysis of water.
  
4. With respect to feature group 8.5, it is common ground between the parties that it relates to a combination of

sensors which measure the head pressure and the off-gas concentration.

5. With respect to feature group 8.6, the board agrees with the appellant that this feature group relates solely to mass flow regulators. The respondent's counter-argument based on the assertion that it is common standard for a bioreactor to be connected to a computer device, which is able to process the data obtained by the various sensors in the bioreactor and to control the valves (reply, page 14) is not found to be persuasive. Claim 8 is silent as regards any computer device and it does not comprise any process steps relating to data collection by the sensors of the bioreactor or to the control of any valves on the basis of such data.

*Novelty (Article 100(a) EPC in conjunction with Article 54(2) EPC)*

6. The opposition division held that document D1 disclosed a system for storing energy in the form of methane comprising all the features of claim 8 of the main request except for the device for measuring the head pressure. The appellant maintained on appeal that document D1 disclosed all features of claim 8, a device for measuring the head pressure being disclosed implicitly. As for the respondent, it maintained on appeal that the bioreactor disclosed in document D1 could not be compared to the system of claim 8, did not have feature groups 8.2, 8.5 and 8.6 of claim 8, and that feature group 8.3 was not disclosed in combination with the other features that made up the system of claim 8 of the main request.



7. Under the heading "SUMMARY OF THE INVENTION" (page 1, left-hand column) document D1 discloses a system for storing energy in the form of methane as follows "*The integrated electrolysis/methane fermentation system can be viewed as converting an intermittent energy source (e.g. inexpensive off-peak electricity from power plants) to a stable chemical energy store, using hydrogen as an intermediate and methane as the final energy carrier*" (paragraph [0004], last sentence).
8. The board therefore agrees with the appellant that paragraph [0004] of document D1 discloses feature group 8.1 of claim 8.
9. The respondent's counter-argument that claim 8 aimed to respond to the world's energy need with a fully integrated system while document D1 focused on methanogenesis, and that, therefore, the bioreactor disclosed in document D1 could not be compared to the system of claim 8 (reply, page 3), is not found to be persuasive.
10. Paragraph [0004] of document D1 - which was relied on by the appellant as disclosing feature group 8.1 of claim 8 (point 7. above) as well as feature groups 8.2 to 8.6 (see below) -, does in fact disclose an "*integrated electrolysis/methane fermentation system*" and not just a bioreactor.
11. Document D1 furthermore discloses that "*e.g. inexpensive off-peak electricity from power plants*" (point 7. above) can be used. Under the heading "DETAILED DESCRIPTION OF THE INVENTION" (page 2, left-hand column), document D1 discloses that "*hydrolysis is powered by electricity used in off peak times*" (lines

12 and 13 of paragraph [0029]).

12. In view of the claim construction adopted by the board (see point 2. above), the board therefore also agrees with the appellant that document D1 anticipates feature group 8.2 of claim 8.
13. The respondent's counter-argument that document D1 did not disclose a system comprising feature group 8.2 for the reason that, according to paragraphs [0004] and [0029] of document D1, electricity was provided by facilities "outside the scope of the invention" in document D1 (reply, page 3) is not found to be persuasive.
14. In line with the established case law of the boards of appeal, the technical disclosure in document D1 must be considered as a whole (Case Law, I.C.4.1.). That disclosure includes a system comprising power plants providing inexpensive off-peak electricity as described in paragraphs of document D1 providing a summary and a detailed description of the invention, i.e. paragraphs [0004] and [0029].
15. According to document D1 "*electric power can be used to produce hydrogen from water via electrolysis*" (paragraph [0004], lines 16 and 17) and "*[t]he bioreactor is coupled to a hydrogen source and a CO<sub>2</sub> gas source. ... The hydrogen source is suitably hydrogen produced by the electrolysis of water*" (paragraph [0029], lines 7 to 11).
16. In view of the claim construction adopted by the board (see point 3. above), therefore, the board also agrees with the appellant that document D1 anticipates feature

group 8.3 of claim 8.

17. The respondent's assertion that in document D1 the device for electrolysis of water (feature group 8.3) was not disclosed in combination with the other features of the system (reply, page 9) fails in view of the claim construction adopted by the board (point 2. above). Moreover, paragraph [0004] of document D1 discloses feature group 8.3 as part of the "*integrated electrolysis/methane fermentation system*" (points 7. and 15. above), and paragraph [0029] of document D1 states that the bioreactor "*is coupled*" to the hydrogen source (point 15. above).
18. It was undisputed that the system of document D1 includes "*a bioreactor containing methanogenic archaea to catalyze the following chemical reaction:  $CO_2+4H_2 \rightarrow CH_4+2H_2O$* " (paragraph [0005]) and thus also comprises feature group 8.4 of claim 8.
19. In the context of example 1, which relates to the general set-up for a bench-scale bioreactor, document D1 discloses that "*[T]he composition of the effluent gas was analyzed by a Cirrus quadrupole mass spectrometer ... Measurements were made of the amount of methane produced by a given volume of culture per unit time, as well as the efficiency of conversion of input  $CO_2$  and  $H_2$  to methane*" (paragraph [0047], last 11 lines).
20. In agreement with the appellant the board considers that, in disclosing a mass spectrometer, document D1 anticipates feature group 8.5 of claim 8 in as much as it relates to a device for measuring the off-gas concentration.

21. In the same context, moreover document D1 discloses that "[T]he composition of the gas mixture was controlled by three mass flow controllers, one for H<sub>2</sub>, one for CO<sub>2</sub>, and a third that could be used for controlling addition of air, CO, or N<sub>2</sub>" (paragraph [0047], right-hand column, lines 12 to 15).
22. The board agrees with the appellant that the mass flow controllers disclosed in paragraph [0047] of document D1 correspond to feature group 8.6 of claim 8. The respondent's counter-argument (reply, page 14), which is based on its assertion that feature group 8.6 comprises more than mass flow controllers, fails in view of the claim construction adopted by the board (point 5. above).
23. The board furthermore notes in this context that, in general, the technical teaching of examples (example 1 of document D1, here) can be combined with that disclosed elsewhere in the same document, e.g. in the description of a patent document (paragraphs [0004] and [0029] of document D1, here), provided that the example concerned is indeed representative of - or in line with - the general technical teaching disclosed in the document (Case Law, I.C.4.2.). In the case in hand, document D1 discloses at the beginning of Example 1 that "[A] bench-scale bioreactor was used to test a series of variables important to the design and operation of an industrial scale bioreactor" (paragraph [0047], lines 1 to 3). The skilled person therefore understands that the bench-scale bioreactor in example 1 is representative of the industrial-scale bioreactor disclosed in those paragraphs of document D1 that provide a summary and a detailed description of the invention, i.e. paragraphs [0004] and [0029] of document D1. Furthermore, contrary to the respondent's

assertion (reply, page 7), the general disclosure in paragraphs [0004] and [0029] of document D1 is not incompatible with example 1, which - as mentioned above - relates to a particular aspect of the system disclosed in paragraphs [0004] and [0029] of document D1, i.e. the design and operation of an industrial-scale bioreactor.

24. To sum up, based on the above considerations, document D1 discloses feature groups 8.1, 8.2, 8.3, 8.4, 8.6, and also discloses feature group 8.5 of claim 8 in part, insofar as it relates to the measurement of the off-gas concentration.
25. It was common ground between the parties that document D1 does not explicitly disclose feature group 8.5 of claim 8 in so far as it relates to a device for measuring the head pressure.
26. The appellant maintained on appeal that a device for measuring the head pressure was disclosed implicitly in document D1. It argued that the person skilled in the art derived from document D1 a range of values for the applicable pressures (paragraph [0008]), a specific pressure value (paragraph [0047]) and information for calculating the yield of methane as a function of the pressure in the reactor (paragraphs [0050], [0068] to [0070]). According to the appellant this information in document D1 only made sense if the pressure in the reactor was actually measured, namely because the pressure in the reactor head could not be determined by any means other than by using a device for pressure measurement.
27. Pursuant to established case law of the boards of appeal a prior art disclosure is novelty-destroying if

the subject-matter claimed can be inferred directly and unambiguously from that disclosure, including features which for the skilled person are implicit in what is explicitly disclosed. In this context, "implicit disclosure" means disclosure which any person skilled in the art would objectively regard as necessarily implied in the explicit content (see Case Law, I.C.4.3).

28. For ease of reading, the passages from document D1 on which the appellant relied are set out below.

*"Any suitable methanogenic archaea can be used, and a suitable temperature and pressure for the bioreactor condition can be selected depending at least in part on the methanogenic archaea selected. In some embodiments, suitably pressures within the bioreactor range from about 0.5 atmospheres to about 500 atmospheres."*  
(paragraph [0008])

*"The culture in the bioreactor was maintained at about 1 atmosphere of pressure."* (paragraph [0047], right-hand column, lines 18 to 20)

*"Other abiotic methods that may be used to increase the gas-to-liquid mass transfer and hence the methane production rate include 1) increased gas pressure and 2) increased temperature. Some methanogenic archaea can thrive at pressures over 500 atmospheres."* (paragraph [0050], lines 13 to 18)

Finally, paragraphs [0068] to [0070] of document D1 provide a mathematical expression for the yield of methane as a function of the supplied hydrogen, wherein the variable  $P_g$  contained in the equation stands for the pressure in the reactor: " $P_g$  is the operating

*pressure.*" (paragraph [0070], lines 2 and 3)

29. As its main counter-argument, the respondent submitted that the pressure range indicated in paragraph [0008] of document D1 was insufficiently disclosed because, in example 1 of document D1, a bench-scale bioreactor made from glass was used which could not be pressurised, and also because document D1 provided no information on the material of the bioreactor to be used to withstand the indicated pressures.
30. In agreement with the appellant, the board considers that a person skilled in the art of industrial bioprocessing can be relied on to be familiar with bioreactors made of materials other than glass. Moreover, a person skilled in the art can be trusted to choose accordingly from among those materials (see also paragraph [0044] of document D1).
31. For the reasons which follow, however, the board agrees with the respondent's additional line of argument, submitted at the hearing, namely that the presence of at least one device for measuring the head pressure is not directly and unambiguously derivable from the text passages of document D1 relied on by the appellant.
32. Document D1 does not state in any of paragraphs [0008], [0047] or [0050] or in paragraphs [0068] to [0070], that the pressure in the reactor is actually measured (see point 28. above). The board also agrees with the respondent that the skilled person reading document D1 will be aware, from their common general knowledge, that, in order to maintain a selected pressure in the "*range from about 0.5 atmospheres to about 500 atmospheres*" (paragraph [0008]), or "*at about 1 atmosphere*" (paragraph [0047]), a device for pressure

measurement or a pressure relief valve, which regulates the pressure to a preset value, e.g. 1 atmosphere, can be used. Therefore, as set out by the respondent, there are at least two realistic alternatives that can be used to achieve the selected pressure. The presence of a device for measuring the head pressure is therefore not necessarily implied within the explicit content of the text passages of document D1 relied on by the appellant.

33. As a consequence of the above considerations the subject-matter of claim 8 of the main request is novel over the disclosure in document D1.

*Inventive step (Article 100(a) EPC in conjunction with Article 56 EPC)*

*Closest prior art and objective technical problem*

34. The opposition division held that document D1 was the closest prior art in relation to the system according to claim 8 of the main request. Like the patent in suit, document D1 relates to a system for the production of methane using hydrogen obtained through the electrolysis of water in the presence of methanogenic bacteria. On appeal, it was common ground between the parties that document D1 represents the closest prior art.
35. As a consequence of the above findings concerning novelty of the subject-matter of claim 8 over the disclosure in document D1, the board agrees with the appellant that the claimed subject-matter differs from the system of document D1 solely on account of the presence of a device for measuring the head pressure.



36. With respect to the effect associated with that feature the opposition division held that it could be derived from paragraph [0041] of the patent that a device for measuring the head pressure "allows that different sources of carbon dioxide and hydrogen with different content of said gases may easily be used, mixed and exchanged. It is not necessary to determine the exact composition of the gas source which is used. Furthermore, the gases do not need to be cleaned up" (decision under appeal, Reasons, page 6). On this basis, the opposition division formulated the objective technical problem to be solved as "how to provide a system for the production of methane from carbon dioxide using methanogenic microorganisms, wherein gases from different sources can be used without determining the exact composition of the gas source and without cleaning up the gases" (ibid.).
37. However, paragraph [0041] of the patent does not relate to the system for storing energy in the form of methane defined in claim 8 of the main request. Instead, it relates to a method for converting hydrogen and carbon dioxide into methane by methanogenic microorganisms, wherein the pressure ratio of carbon dioxide and hydrogen inside the reaction vessel is adjusted to or maintained at a specific value or in a range according to the desired carbon flux. Claim 8 of the main request does not include any process steps which correspond to the method steps disclosed in this context in paragraph [0041] of the patent.
38. Furthermore, paragraph [0042] of the patent explains that, for the determination of the partial pressures of hydrogen and carbon dioxide, not only sensors which measure the head pressure and the off-gas concentration but also a process management system is required. The

system of claim 8 of the main request does not include such a process management system either.

39. The board therefore agrees with the appellant that the technical effect acknowledged in the decision under appeal (see point 36. above) cannot be attributed to the device for measuring the pressure in the reactor head, since although the device is necessary to achieve that effect, it is not sufficient in itself to achieve that effect. Accordingly, the board also agrees with the appellant that the objective technical problem as defined by the opposition division is not solved by the subject-matter of claim 8.
  
40. The board considers, in agreement with the appellant, that in the context of the system as defined in claim 8, the only technical effect associated with the distinguishing feature is that it allows the pressure in the bioreactor head to be measured. The fact that the head pressure could then also be used to adjust or maintain the ratio of the partial pressures of carbon dioxide and hydrogen inside the reaction vessel is, however, irrelevant, as corresponding process steps and system features do not form part of the subject-matter of claim 8.
  
41. The respondent maintained that the distinguishing feature correlates with the technical effect that different sources of carbon dioxide and hydrogen with different contents of these gases can be easily used, mixed and exchanged, since the ratio of gas supplied to the methanogenic microorganisms can be easily adjusted or maintained based on real-time measurement (reply, page 9). Since the respondent's argument is also based on the method disclosed in paragraph [0041] of the patent, it also fails for the reasons set out in points

37. to 40. above. As a further consequence, the objective technical problem proposed by the respondent (reply, page 11) cannot be accepted.

42. Starting from the system disclosed in document D1, the objective technical problem can be formulated as the provision of a system for storing energy in the form of methane in which the reaction conditions prevailing in the bioreactor head can be determined.

*Obviousness*

43. The question to be answered when assessing obviousness is whether the skilled person starting from the system disclosed in document D1 and seeking to solve the objective technical problem formulated above would have modified the system disclosed in document D1 to arrive at the claimed solution in an obvious manner.
44. As set out above, document D1 discloses a range of values for the applicable pressures for the bioreactor (paragraph [0008]), a specific pressure value in the context of example 1 (paragraph [0047]) as well as information for calculating the yield of methane as a function of the pressure in the reactor (paragraph [0050] and paragraphs [0068] to [0070]). The board agrees with the appellant that this information in document D1 would have motivated the skilled person, when faced with the objective technical problem set out above, to equip the bioreactor of document D1 with means for determining the pressure in the bioreactor head.
45. The skilled person starting from the system of document D1, faced with the technical problem identified above and not needing to achieve any

specific technical effect, had at their disposal all known means for determining the pressure in the bioreactor head. Such means would have included a device for pressure measurement (see also point 32. above).

46. The respondent did not dispute the view that the skilled person was familiar with a device for pressure measurement, but submitted that document D1 did not provide any incentive to equip the bioreactor with a device for pressure measurement in the bioreactor head. Indeed, according to the respondent, the skilled person could have used a pressure valve instead or measured the pressure outside of the bioreactor.
47. However, as document D1 mentions "*suitably pressures within the bioreactor*" (paragraph [0008]), it provides an incentive to use means for determining the pressure inside the bioreactor, more specifically in the headspace of the bioreactor, as this is where the gaseous phase is located in the bioreactor of document D1, as correctly noted by the appellant.
48. As regards the possibility of using a pressure relief valve instead, the board notes that the selection of one of the available alternatives from equally obvious alternatives, in order to arrive at the claimed solution, is not considered inventive (Case Law, I.D. 9.21.9 and decisions cited therein). Accordingly, systems comprising any of these known means for determining the pressure in the bioreactor head were possible solutions available to the person skilled in the art and were hence obvious.
49. At the oral hearing, the respondent argued that the prior art on file did not disclose a device for

pressure measurement. However, in addition to being late, this argument is also irrelevant, since the appellant relied on common general knowledge of the skilled person and the respondent did not dispute the view that a device for pressure measurement was known to the skilled person.

50. Lastly, as the appellant points out, the opposition division had already found that "it may be obvious to the skilled person to control the pressure of 1 atm by a device for measuring the head pressure" (decision under appeal, Reasons, page 6). It did acknowledge, nevertheless, an inventive step on the basis that "D1 does not address the problem of providing gases from different sources can be used without determining the exact composition of the gas source and without cleaning up the gases." (ibid.). However, as that problem is not solved by the subject-matter of claim 8 of the main request (point 39. above), the alleged shortcomings of document D1 in that respect are irrelevant.
51. The board concludes from the above observations that, starting from the disclosure in document D1 and seeking to provide a system for storing energy in the form of methane, in which the reaction conditions prevailing in the bioreactor head can be determined, it would have been obvious - in view of the disclosure in document D1 and common general knowledge in the art - to equip the bioreactor of document D1 with a device for measuring the head pressure, thus arriving at the subject-matter of claim 8 in an obvious manner.
52. The ground for opposition in Article 100(a) EPC in conjunction with Article 56 EPC thus prejudices the

maintenance of the patent as granted.

*Auxiliary requests 1, 2 and 3*

*Article 56 EPC*

53. Claim 8 of auxiliary requests 1 to 3 is identical to claim 8 of the main request and, therefore, the same conclusions as set out above for claim 8 of the main request apply. This has not been disputed by the respondent.

54. The requirements of Article 56 EPC are not met by the subject-matter of claim 8 of auxiliary requests 1 to 3.

*Auxiliary request 4*

*Admittance and consideration (Article 12(4) and 12(6) RPBA)*

55. With the reply to the statement of grounds of appeal, the respondent filed auxiliary request 4 to address the appellant's objection of lack of inventive step against claim 8 of the main request. Auxiliary request 4 differs from the main request in that, in claim 8, feature group 8.2 has been limited to devices for generating electric energy from a renewable energy source. The appellant requested that auxiliary request 4 not be admitted into the appeal proceedings on the grounds that it was filed late and introduced new facts with respect to what had been submitted in the opposition proceedings.

56. Auxiliary request 4 constitutes an amendment of the appellant's case within the meaning of Article 12(4) RPBA, which can only be admitted into the proceedings at the discretion of the board. The criteria to be considered by the board when exercising its discretion under Article 12(4) RPBA include the

need for procedural economy. In addition, pursuant to Article 12(6) RPBA, the board shall not admit requests, facts, objections or evidence which should have been submitted in the proceedings leading to the decision under appeal, unless the circumstances of the appeal case justify their admission.

57. As regards the requirement for procedural economy, the respondent argued that auxiliary request 4 does not require a new discussion of inventive step and that it reduces the complexity of the proceedings (letter dated 10 August 2023, page 2).
58. For the reasons set out below, the board considered that, in the circumstances of the present case, the deletion of an alternative within claim 8 led to a change in the factual and legal framework of the proceedings and that admitting auxiliary request 4 prejudiced the procedural efficiency.
59. In auxiliary request 4, claim 8 was limited to systems comprising devices for generating electrical energy from a renewable energy source. The discussion of inventive step during the opposition proceedings had focused on the device for measuring the head pressure, as this was considered to be the only feature that distinguished the subject-matter of claim 8 of the main request from the disclosure in document D1. Conversely, the device for generating electrical energy did not play a role in the inventive step analysis during the opposition proceedings. In agreement with the appellant, the board therefore considered that admitting auxiliary request 4, to the extent that it brings new facts to be discussed for the first time in appeal, would change the factual and legal framework of

the proceedings.

60. For the same reasons, auxiliary request 4 was also, *prima facie*, not clearly allowable and required further discussion. This had been noted in the board's communication under Article 15(1) RPBA (point 28) and was not commented on by the respondent. The respondent's assertion that "the discussion will remain the same" with respect to inventive step (letter dated 10 August 2023, page 2) was therefore not considered to be persuasive.
61. Lastly, the respondent's argument that it had no reason to file an auxiliary request earlier because the opposition division did not consider either in its preliminary opinion or at the oral hearing that claim 8 failed to satisfy any of the patentability requirements was not found to be persuasive.
62. The appellant had raised objections regarding lack of novelty of claim 8 over document D1 in the notice of opposition (item 3). The respondent therefore had a reason - and an opportunity - to submit its fall-back positions during the opposition proceedings.
63. For the sake of completeness, the board notes that the respondent's assertion that auxiliary request 4 does not constitute an amendment of its appeal case (letter dated 10 August 2023, page 2) must be refuted in the light of the above considerations.
64. For these reasons, the board decided not to admit auxiliary request 4 into the appeal proceedings.



*Auxiliary request 5*

*Admittance and consideration (Article 12(4) and 12(6) RPBA)*

65. Auxiliary request 5 was likewise submitted with the respondent's reply to the statement of grounds of appeal, and it constitutes an amendment of the respondent's case within the meaning of Article 12(4) RPBA, admittance of which is governed by Article 12(4) and (6) RPBA (see point 56. above).
66. In auxiliary request 5, claim 8 and all its dependent claims were deleted, thus limiting the claimed subject-matter to claims 1 to 7 of the main request.
67. The appellant had not raised any objections against claims 1 to 7 of the main request during the appeal proceedings. The deletion of claim 8 and its dependent claims therefore removed all issues in dispute and did not give rise to new objections. Hence, auxiliary request 5 was also, *prima facie*, clearly allowable, meaning that the patent could be maintained on the basis of the set of claims of that request. This fact was also acknowledged by the appellant. Its admittance into the proceedings therefore did not affect procedural economy, as it did not change the subject of the proceedings and because it was filed at the onset of the appeal proceedings (Article 12(4) RPBA). Furthermore, although it was clear that auxiliary request 5 could have been filed during the opposition proceedings, its *prima facie* clear allowability also justified its inclusion in the appeal proceedings (Article 12(6) RPBA).
68. For these reasons, the board decided to admit auxiliary request 5 into the appeal proceedings.

69. The appellant, when asked at the oral proceedings, confirmed that it had no objections against the adapted description and drawings filed for auxiliary request 5 together with the reply to the appeal.

*Conclusion*

70. The main request and auxiliary requests 1 to 3 are not allowable and auxiliary request 4 is not admitted into the appeal proceedings. The patent can be maintained in amended form on the basis of the set of claims of auxiliary request 5 and the adapted description and drawings filed together with the reply to the appeal.

## Order

### For these reasons it is decided that:

1. The decision under appeal is set aside.
2. The case is remitted to the opposition division with the order to maintain the patent on the basis of claims 1 to 7 according to auxiliary request 5 filed with the reply to the statement of grounds of appeal and the corresponding adapted description and drawings also filed with the reply to the statement of grounds of appeal.

The Registrar:

The Chairwoman:



L. Malécot-Grob

T. Sommerfeld

Decision electronically authenticated