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Datasheet for the decision of 8 December 2021

Case Number: T 0840/17 - 3.5.02

Application Number: 08805381.4

Publication Number: 2328259

IPC: H02J3/48, H02J3/50, H02J3/16,

G05F1/67

Language of the proceedings: EN

Title of invention:

System and Method for Power Management in a Photovoltaic Installation

Patent Proprietor:

Ingeteam Power Technology, S.A.

Opponent:

SMA Solar Technology AG

Relevant legal provisions:

EPC Art. 56, 123(2) RPBA Art. 12(4) RPBA 2020 Art. 13(2)

Keyword:

Inventive step - granted claims 1, 8 (no) - granted claim 11
(yes)

Amendments - added subject-matter - 18th auxiliary request (no) Amendment after summons - 23rd auxiliary request - taken into account (no)

Late-filed facts (objections to claims 8, 11) - request could have been filed in first instance proceedings (no) - submitted during oral proceedings (objection to claim 11) - exceptional circumstances (no)

Decisions cited:

T 1841/11



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Case Number: T 0840/17 - 3.5.02

D E C I S I O N
of Technical Board of Appeal 3.5.02
of 8 December 2021

Appellant: Ingeteam Power Technology, S.A.

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Decision under appeal: Interlocutory decision of the Opposition

Division of the European Patent Office posted on 8 February 2017 concerning maintenance of the European Patent No. 2328259 in amended form.

Composition of the Board:

Chairman R. Lord Members: F. Giesen

W. Ungler

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Summary of Facts and Submissions

I. The present appeals by the patent proprietor and the opponent lie from the interlocutory decision of the opposition division concerning maintenance of the European Patent No. 2328259 in amended form on the basis of the claims filed during the oral proceedings on 12 December 2016.

The party status of the patent proprietor as well as the opponent are that of an appellant. However, for ease of legibility, they will only be referred to here as proprietor and opponent.

- II. The following documents are relevant for this decision:
 - NPL3 Lubosny, Z. et al.: "Supervisory Control of a
 Wind Farm", IEEE Transactions on Power Systems,
 Vol. 22, No. 3, August 2007
 - NPL4 Meinhard, M. et al.: "Multi-String-Converter with Reduced Specific Costs and Enhanced Functionality", Solar Energy, Vol. 69, pp. 217-227, 2001
 - NPL5 Borle, L. J. et al.: "Development and Testing of a 20-kW Grid Interactive Photovoltaic Power Conditioning System in Western Australia", IEEE Transactions on Industry Applications, Vol. 33, No. 2, March/April 1997
 - NPL9 SMA Regelsysteme GmbH, Betriebssanleitung Sunny Boy 5000TL Multi-String
 - NPL10 SMA Technologie AG, Delivery Note No. 6145384, 2 June 2006
 - E14 DE 10 2004 048 341 A1

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- III. In a communication pursuant to Article 15(1) RPBA 2020, the board informed the parties of their preliminary opinion, in particular that the subject-matter of claim 8 of the main request appeared not to involve an inventive step, that in the context of the subject-matter of claim 1 of the main request, the deltacontrol mode of NPL3 would have to be discussed and that the subject-matter of claim 11 appeared to involve an inventive step.
- IV. With letter dated 11 February 2021, the proprietor filed fifteenth to twenty-first auxiliary requests. With a further letter dated 5 November 2021, the proprietor filed twenty-second to twenty-fifth auxiliary requests.
- V. Oral proceedings before the board took place by means of a videoconference on 8 December 2021, as requested by the proprietor and agreed to by the opponent.

The final requests of the parties were as follows:

The patent proprietor requested that

the decision under appeal be set aside and that the patent be maintained in amended form on the basis of the main request or

on the basis of one of the first to sixth auxiliary requests, all filed with the statement of grounds of appeal of 15 June 2017,

or on the basis of one of the eighth to fourteenth auxiliary requests filed with the appeal reply of 27 October 2017,

or on the basis of one of the fifteenth, sixteenth and eighteenth to twenty-first auxiliary requests filed with letter of 11 February 2021,

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or on the basis of one of the twenty-second to twenty-fifth auxiliary requests filed with letter dated 5 November 2021, with the re-ordering of the twenty-third auxiliary request as done in the oral proceedings of 8 December 2021.

During the oral proceedings, the proprietor withdrew the seventh and seventeenth auxiliary requests.

The opponent requested that

the decision under appeal be set aside and the patent be revoked.

- VI. Claim 1 of the main request reads as follows:
 - "(a) Photovoltaic installation power management method,
 - (b) the photovoltaic installation being equipped with a plurality of power control minimum units $(102_1...102_n)$,
 - (c) the method carrying out an active power control comprising the following steps:
 - (d) establishing an active power reserve setpoint for the installation,
 - d1) where said active power reserve setpoint is selected from among an economic optimization algorithm, a grid frequency control loop, external requirements, an installation power output variation rate control loop and a combination thereof;
 - (e) determining a first array of power control minimum units $(102_1...102_n)$ which operate without limiting its active power;
 - (f) estimating the active power producible by the photovoltaic installation;

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- (g) determining a second array of power control minimum units $(102_1...102_n)$ which operate limiting its active power at a certain value,
 - (g1) where said limitation is established from the active power reserve setpoint and from the estimation of producible active power."

Feature labels here and below were added by the board and correspond to those used by the parties and the opposition division.

Claim 8 of the main request reads as follows:

- "(a) Photovoltaic installation power management method,
- (b) the photovoltaic installation being equipped with a plurality of electronic converters (101 $_1$... 101 $_m$),
- (c) the method carrying out a reactive power control comprising the following steps:
- (d) establishing a reactive power setpoint for the photovoltaic installation,
 - (d1) were said reactive power setpoint is selected from among an economic optimization algorithm, a grid voltage control loop, external requirements and any combination thereof;
- (e) determining the reactive power to be generated or consumed by each electronic converter of the installation in a coordinated manner among the different electronic converters through a block that executes an optimization algorithm based on the following criteria:

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- i) the active power of each electronic
 converter;
- ii) the reactive power of each electronic
 converter;
- iii) the proportion of reactive power produced with respect to its capacity."

Claim 11 of the main request reads as follows:

- "(a) Photovoltaic installation power management system, the system comprising:
- (b) at least one control unit (104)
 - (b1) where said control unit (104) comprises means for managing power in the photovoltaic installation, said means being a combination of active power management means and reactive power management means;
- (c) a plurality of Power Control Minimum Units $(102_1...102_n)$, each Power Control Minimum Unit $(102_1...102_n)$ consisting of an array of photovoltaic generators
 - (c1) where the energy production of each Power Control Minimum Unit is individually controlled;
- (d) at least one electronic converter $(101_1...101_m)$ for transforming direct current into alternating current;
- (e) one local control unit $(103_1...103_m)$ associated to each power control minimum unit $(102_1...102_n)$;
- (f) a communications network that interconnects the local control units $(103_1...103_m)$ with at least the control unit (104) and with at least one electronic converter $(101_1...101_m)$,
- (g) the means for managing the active power of the control unit comprising the following means:

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(g1) means for monitoring the active power of the different power control minimum units $(102_1...\ 102_n)$;

(q2) means for establishing the operating mode of each power control minimum unit $(102_1...102_n)$, each power control minimum unit $(102_1...102_n)$ being able to operate in two operating modes governed by the control unit (104) through its corresponding local control unit $(103_1...103_m)$, an observer mode (MO) and a reserve mode (MR), a power control minimum unit $(102_1...102_n)$ supplying the maximum active power available at a given time, without restriction, when operating under the observer mode (MO), and the control unit (104) limiting the active power supplied by said power control minimum unit $(102_1...102_n)$ when operating under the reserve mode (MR); and (g3) means for sending active power setpoints to each power control minimum units $(102_1...102_n)$."

VII. Each of the eighth to fifteenth auxiliary requests includes a claim with identical wording to that of claim 1 of the main request.

Each of the first to sixth, ninth to fourteenth and sixteenth auxiliary requests includes a claim with identical wording to that of claim 8 of the main request.

Each of the first to sixth, eighth, fifteenth and sixteenth auxiliary requests includes a claim with identical wording to that of claim 11 of the main request.

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The eighteenth auxiliary request includes as the sole claim a claim with identical wording to that of claim 11 of the main request.

- VIII. In view of the tenor of this decision and in view of the board's decision not to admit the twenty-third auxiliary request, the wording of the claims of the nineteenth to twenty-fifth auxiliary requests is not relevant for the present decision and consequently not reproduced here.
- IX. The arguments of the **opponent** that are relevant for the present decision can be summarised as follows:

Claim 1 of the Main Request - Lack of Inventive Step in View of NPL3

The subject-matter of independent claim 1 of the main request did not involve an inventive step in view of document NPL3. NPL3 was not only concerned with wind farms. According to the abstract, last sentence "[t]he proposed control system is general and could also be used for other types of intermittent generators, such as wave or solar", which rendered feature (a) obvious. Concerning feature (f), for the wind farm to be able to provide a desired amount of power reserve ΔP_{refN} the part-loaded wind turbines had to be capable of being operated so as to be able to harness the desired power reserve on request. For this reason alone, an estimate of the maximum producible power was an implicit requirement that the wind farm controller had to meet. Even if this feature were not implicitly disclosed in NPL3 it was obvious in view of NPL3. Since it was the purpose to smooth the total power output, it was also necessary to repeatedly determine ΔP_{refN} . The

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proprietor stressed that the claimed method was a dynamic method and that this implied that the steps (f) and (g1) were repeatedly executed. In fact, claim 1 did not contain any limitation to this effect, but, as the preceding arguments showed, irrespective of this, NPL3 disclosed a repeated execution of the steps (f) and (g1). The argument of the proprietor that the claimed method was simpler than the control loop of figure 4 of NPL3 was not persuasive, since claim 1 concerned merely a more limited aspect of a control scheme than figure 4 of NPL3, which was intended to depict the full control scheme. It could not be argued that the fact that NPL3 contained more detailed information than claim 1 was indicative of an inventive step of the claimed subject-matter.

Claim 8 of the Main Request - Admissibility of Objection of Lack of Inventive Step in View of NPL5 and E14

The board should exercise their discretion pursuant to Article 12(4) RPBA 2007 so as to admit the objection of lack of inventive step of the subject-matter of claim 8 of the main request in view of documents E14 and NPL5.

A claim with wording identical to that of the present claim 8 was filed only one month before the oral proceedings before the opposition division. It contained amendments taken from the description. The opponent only became aware of the opinion of the opposition division during the oral proceedings and upon notification of the written decision.

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Claim 8 of the Main Request - Lack of Inventive Step in View of NPL5 and E14

The subject-matter of claim 8 of the main request did not involve an inventive step in view of NPL5 and E14. NPL5 disclosed a reactive power management method of a photovoltaic installation with a single converter. The technical problem was the adaption of the known reactive power management method to a system with a plurality of converters. Document E14 concerned a reactive power management method of a wind farm with a plurality of electric converters. A skilled person was aware of the similarities between photovoltaic installations and wind farms and would therefore have consulted E14. E14 disclosed in the abstract and the characterising portion of claim 1 a distributed controller for reactive power management consisting of a main controller (Oberregler 73), which calculated a voltage setpoint (Usoll), and which communicated it to the local wind turbine controllers (Unterregler 184), which calculated from the voltage setpoint local reactive power setpoints. All that feature (e) of claim 8 of the main request required was that the reactive power generated or consumed by each electronic converter was determined in a coordinated manner through a block that executes an optimisation algorithm based on three criteria. Claim 8 therefore did not contain any limitation as to the controller in which this optimisation algorithm was executed and in particular did not exclude a distributed control scheme. Obviously, in E14 there had to be a coordination among the wind turbines because according to paragraph [0014], as a result of the control scheme, a desired global reactive power was fed to the grid at the feeding point of the entire wind farm. This was simply not possible without coordination. The reactive

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power was determined by a voltage set point by the park master and then further control was implemented in the local controllers of each wind turbine, which according to paragraph [0017] took into account the criteria (i) to (iii) of feature (e) of claim 8.

Claim 11 of the Main Request - Admissibility of Objection of Lack of Inventive Step in View of NPL3

The objection of lack of inventive step of the subjectmatter of independent claim 11 of the main request in view of document NPL3 should be admitted. It was true that this objection was raised for the first time during the oral proceedings before the board. However, it was not really clear what was intended to be protected by claim 11. It was important to note that claim 11 was directed to a system which implemented active and reactive power management. As a system claim it was less limited and less specific than the corresponding method of claim 1. The discussion of claim 1 during the oral proceedings before the board revealed that even the more limited and more specific method did not involve an inventive step. In particular, the "means plus function"-features of claim 11 had previously not been correctly assessed, which represented exceptional circumstances. In particular, these features did not limit the claim to an operation mode in which some of the power control minimum units were in observer mode while others were simultaneously in reserve mode. This would amount to reading a method step into the system, for which it was only suitable but to which it was not limited. The same conclusion as for claim 1 had to apply to the system claim 11. The discussion during the oral proceedings before the board showed that the objection was prima facie very relevant. Articles 12(4) to (6) RPBA 2020 were not

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applicable as the proprietor argued. Rather Article 13(3) RPBA 2007 should be applied.

Claim 11 of the Main Request - Lack of Inventive Step in View of NPL4

The subject-matter of claim 11 of the main request did not involve an inventive step in view of NPL4. NPL4 disclosed features (a) to (g3) with the exception of feature (b1), namely the presence of reactive power management means. Concerning feature (g2) the expression "reserve mode" in the context of a system claim implied nothing beyond some arbitrary limitation of the output power. NPL4 disclosed maximum power point tracking. In maximum power point tracking, the working point voltage of the individual solar generators was swept across the entire possible range in order to determine the maximum power point. During the sweep the photovoltaic strings were in reserve mode, because their active output power was limited. The photovoltaic strings operating at the maximum power point were in observer mode as they provided the maximum power under given irradiation conditions without limitation. As an alternative line of argument any PV string which was not in MPP mode could be regarded as being in reserve mode. Moreover, NPL4 disclosed a start/stop functionality. Stopping a power control minimum unit according to 3.1 of NPL4 also corresponded to a reserve mode with an active power setpoint of zero.

Claim 11 - Admissibility of NPL9, NPL10 and Corresponding Objection

Documents NPL9 and NPL10 and the corresponding objection should be admitted. Claim 11 of the main request was filed only shortly before the oral

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proceedings before the opposition division. The amendments to claim 11 were partly based on the description and thus complex and not foreseeable. Since the examination of the amended claim 11 took place for the first time during the oral proceedings, the opponent only became aware of the full reasoning through the impugned decision.

Claim 11 - Lack of Inventive Step in View of NPL9

The subject-matter of claim 11 of the main request did not involve an inventive step in view of NPL4 and NPL9. It was clear that NPL9 referred to the same product as NPL4. Going beyond NPL4 it disclosed a constant voltage mode, which could be set by the main controller. It was apparent that the PV generators were operated with a limited output power in constant voltage mode. It followed that the only distinguishing feature was the means for reactive power control which was totally isolated from the remaining features and had no synergy. It was part of the common knowledge to provide reactive power management means.

Admittance of the Twenty-Third Auxiliary Request

The twenty-third auxiliary request should not be admitted into the appeal proceedings. It was intended to address the same points of the preliminary opinion of the board as the requests filed directly in response to it. The application of the Rules of Procedure should be equally strict here as in the case of the opponent's inventive step objection based on NPL3.

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Sole Claim of the Eighteenth Auxiliary Request - Amendments

The sole claim of the eighteenth auxiliary request did not meet the requirements of Article 123(2) EPC. The application as originally filed was the Spanish international application WO 2010/018240 Al, which used the expression "en cada momento". This expression correctly translated to "at any given moment" or "at any given time" in English. The proprietor argued themselves that the wording "at a given time" was a mistranslation. The expression used in claim 11 required merely that a power control minimum unit in observer mode supplied the maximum power at a single given point in time, whereas it was originally disclosed only that they had to provide the maximum power at any given moment.

X. The arguments of the **proprietor** which are relevant for the present decision can be summarised as follows:

Claim 1 of the Main Request - Inventive Step in View of NPL3

The subject-matter of claim 1 of the main request involved an inventive step in view of document NPL3. Document NPL3 did not disclose features (a), (e), (f) and (g1). Concerning feature (a), NPL3 disclosed a wind farm rather than a photovoltaic installation. Concerning feature (f), the claimed method was dynamic. It followed that all its steps had to be repeatedly executed. The producible power according to feature (f) had to be repeatedly estimated because the producible active power of a photovoltaic installation changed over time, because a power management method carrying out an active power control implied controlling power

over time, and because if the estimated producible active power was to be considered for said control over time, it made no sense to base this estimate on a "producible active power" that did not correspond to the producible active power at that specific moment. In particular, feature (f) could not be construed to refer to the maximum rated power of the photovoltaic installation set at the design stage. If the method steps (d), (e), (f) and (g) were not repeatedly executed, the corresponding method would not be a "power management method carrying out an active power control" as required by claim 1, but a "photovoltaic installation initialization" method. The description confirmed this understanding. Figure 4 of NPL3 showed a control that was much more complex than that of claim 1. NPL3 neither disclosed nor suggested a relationship between a power reserve setpoint and an estimation of the currently available wind capacity. In fact, there was no need to estimate the producible power in NPL3. NPL3 mentioned a "delta control" mode with a constant reserve capacity, but this control mode was not explained in detail. It may be argued that if a constant reserve capacity was maintained, a minimum power reserve may be quaranteed at all times, but such a control would be different from the control provided by the method of claim 1, in which there was not a constant reserve capacity but a reserve setpoint that changed over time. Moreover, there was no hint in NPL3 to conclude that the delta control mode may have partloaded turbine(s) selected dynamically while performing the method.

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Claim 8 of the Main Request - Admissibility of Objection of Lack of Inventive Step in View of NPL5 and E14

The board should exercise their discretion pursuant to Article 12(4) RPBA 2007 so as to not admit the objection of lack of inventive step of the subject-matter of claim 8 of the main request in view of documents E14 and NPL5. A claim with wording identical to that of claim 8 was filed one month before the oral proceedings before the opposition division. The opponent therefore had been aware of it and had been in a position to react in the first instance proceedings.

Claim 8 of the Main Request - Inventive Step in View of NPL5 and E14

The subject-matter of claim 8 of the main request involved an inventive step in view of NPL5 and E14. Claim 8 required determining the reactive power to be generated or consumed by each electronic converter of the installation in a coordinated manner. Since each local electronic wind turbine converter determined the reactive power locally in E14, there was no coordination among the electronic converters in the determination of the reactive power to be generated by each electronic converter. The optimisation algorithm according to feature (e) could not be executed locally since it had to take into account as criteria the active power of each electronic converter.

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Claim 11 of the Main Request - Admissibility of Objection of Lack of Inventive Step in View of NPL3

The objection of lack of inventive step of the subject-matter of independent claim 11 of the main request in view of document NPL3 should not be admitted. The objection was presented for the first time during the oral proceedings before the board and should have been submitted during the opposition proceedings. Pursuant to Article 12(6) RPBA 2020 it should therefore not be admitted. There were also no special circumstances.

Claim 11 of the Main Request - Inventive Step in View of NPL4

The subject-matter of claim 11 of the main request involved an inventive step in view of NPL4. Contrary to the opponent's assertion, features (b1), (g1) and (g2) were not disclosed in NPL4. In particular, NPL4 did not contain any disclosure or suggestion that some of the power control minimum units could be operated in reserve mode while others were operated in observer mode at the same time.

Claim 11 of the Main Request - Admissibility of NPL9 and NPL10 as well as Corresponding Objection of Lack of Inventive Step

The board should exercise their discretion pursuant to Article 12(4) RPBA 2007 so as to not admit documents NPL9 and NPL10 as well as the objection of lack of inventive step against the subject-matter of claim 11 of the main request based on these documents. The documents as well as the objection based on them could have been submitted in the first instance proceedings. A claim with identical wording to that of claim 11 was

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filed one month before the oral proceedings before the opposition division. There would have been enough time for the opponent to introduce the documents and raise the objection. NPL9 was not prima facie relevant as it was not more relevant than NPL4. NPL10 was not sufficient proof that NPL9 was made available to the public.

Claim 11 of the Main Request - Inventive Step in View of NPL9

The subject-matter of claim 11 involved an inventive step in view of document NPL9 (and NPL10). Like document NPL4, document NPL9 did not disclose features (bl), (g2) and (g3).

Admittance of the Twenty-Third Auxiliary Request

The twenty-third auxiliary request should be admitted. The proprietor only realised after filing the fifteenth to twenty-first auxiliary requests that a better reaction to the board's preliminary opinion than the immediate reply, namely the twenty-second to twenty-fifth auxiliary requests, was possible. It was very common for the order of auxiliary requests to change, at least in opposition proceedings. Since the board admitted NPL9, the twenty-third auxiliary request should also be admitted as a matter of equitable exercise of discretion.

Sole Claim of Eighteenth Auxiliary Request - Amendments

The issue of the translation of the expression "en cada momento" was raised in the context of a dynamic interpretation of claim 1 but it did not represent an important issue as nobody would interpret the

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expression "at a given time" to refer to a single point in time. There was no difference in meaning between the expressions "at a given time" and "en cada momento".

Reasons for the Decision

1. Admissibility of the Appeals

Both appeals meet the requirements of Articles 106 and 108 EPC, as well as those of Rule 99 EPC. They are therefore admissible.

- 2. Claim 1 of the Main Request Lack of Inventive Step
- 2.1 The subject-matter of claim 1 of the main request does not involve an inventive step within the meaning of Article 56 EPC in view of Document NPL3.
- 2.2 Both parties considered document NPL3 as a suitable starting point for the assessment of inventive step. The board agrees, in particular in view of the similarities between controlling the power output of photovoltaic arrays and wind farms and in view of the clear disclosure in the abstract as well as on page 986, right column, last sentence of the introduction of NPL3 that the disclosed control scheme is applicable to other intermittent generators, such as wave or solar.

The opponent and the proprietor agree that feature (a) was not disclosed. Rather than photovoltaic installations, NPL3 concerns wind farms. NPL3 discloses choosing an active power reserve setpoint ΔP_{refN} .

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Feature (d) is therefore disclosed. Concerning features (e) and (g) it is not in dispute between the parties that first and second arrays of power control minimum units were determined at least once. However, the proprietor argued that the claimed method was dynamic and that NPL3 did not disclose that the step of determining the arrays was repeatedly executed. The board considers features (e) and (g) to be disclosed and will deal with the proprietor's argument in the following. The embodiment of NPL3 referred to in section B "Supervisory Control of Power Reserve", which is the embodiment the opponent bases their objection on, aims at keeping the output active power of the wind farm constant. In order to achieve this aim, ΔP_{refN} is set on the basis of the fluctuations of the total power output, rather than the maximum producible power.

However, the opponent also argued - correctly in the board's view - that in order to keep a <u>desired</u> amount of power reserve, it was necessary to estimate the maximum available power at any given moment. The power reserve is merely the difference between the maximum producible power at any given moment and the actually produced power at that moment. (Alternatively it could be expressed as a percentage as in the opposed patent, which is mathematically equivalent.)

$$P_{reserve}(t) = P_{producible}(t) - P_{actual}(t)$$
.

The maximum producible power at any given moment can only be estimated due to the fact that some of the turbines are operated with limited power output in reserve mode. If the wind speed changes the maximum producible power will change. The power provided by the part-loaded turbine(s) necessarily must follow in lockstep the changes of the maximum producible power,

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otherwise the amount of power reserve will obviously change as well. In figures 8 and 9 of NPL3 it is apparent that the power of the part-loaded wind turbine (and hence also the power reserve) changes over time, since the goal in this embodiment is to keep the total output power constant rather than to keep a desired amount of power reserve. However, NPL3 discloses a further control mode, the delta control mode, in which the power reserve is to be kept constant, i.e. to have a specific desired amount. It is necessary, that the control scheme in delta control mode repeatedly estimates the maximum producible power in order to correct deviations from the desired active power reserve setpoint. Furthermore, it will depend on the desired amount of the power reserve that is to be kept, how many turbines will have to be operated part-loaded. A given wind turbine can contribute between zero and its maximum output power at a given wind speed to the total power output. The maximum reserve power that this single turbine can keep is thus equal to the maximum power at the given wind speed at any given moment. If the desired amount of power reserve is larger than the reserve that can be provided by a single wind turbine, the control algorithm will necessarily have to operate a suitable number of further wind turbines in the partloaded reserve mode. Otherwise the active power reserve could not be kept constant but would fall below the desired setpoint value. It follows that NPL3 implicitly discloses features (e), (f), (g) and (g1) and it also implicitly discloses that the method steps corresponding to those features have to be repeatedly executed.

NPL3 does not disclose any criteria according to which the active power reserve setpoint is selected. - 21 - T 0840/17

- 2.3 It follows that the only distinguishing features of claim 1 over NPL3 are features (a) and (d1).
- 2.4 It was one of the main arguments of the proprietor that the claimed method was "dynamic" whereas not all steps were repeatedly executed in NPL3. The above argument shows that NPL3 discloses that features (e), (f), (g) and (g1) indeed have to be repeatedly executed in delta control mode.

The proprietor argued that this control mode was not explained in detail. Its aim was to keep the power reserve constant, rather than the total power output, but that in order to keep the reserve constant, there was no need to estimate the total producible power. This assertion is incorrect for the reasons the board has presented above. If the maximum producible power were not estimated, one could not provide a desired constant amount of reserve power.

The proprietor argued further in their letter dated 11 February 2021 on page 12, that according to claim 1 of the main request the active power reserve setpoint changed over time, which was different from NPL3, according to which the reserve remained constant. The board disagrees with the proprietor's assertion that claim 1 contained any limitation in this respect. The vague label that the method was "dynamic" cannot support the conclusion that each and every one of its steps were repeatedly executed or at which repetition rate. As an example, any control can legitimately be labelled a dynamic method since deviations from a setpoint will repeatedly have to be corrected. However, this does not imply that the setpoint itself will repeatedly change at the same or a similar rate as the correction of the deviations. An example for this would - 22 - T 0840/17

be the control of the temperature of a living room. The temperature setpoint will largely be left unchanged, whereas deviations will have to be corrected repeatedly on a much shorter time scale. Likewise, in the present case the active power reserve setpoint will have to be selected but there is absolutely nothing to limit claim 1 to any rate at which the selection of the setpoint changed.

Lastly, the proprietor argued that the delta control method was not described in detail. The board fails to see that this mattered in the present case. A skilled person has the necessary skill to understand NPL3. The considerations presented above, from which it follows that in order to keep the reserve constant, the actually produced power has to fluctuate in lockstep with the maximum producible power, are part of the basic skill of a skilled person needed to understand NPL3.

The board therefore comes to the conclusion that claim 1 in essence merely explicitly states the steps which a skilled person understands to be implied by a "delta control mode", whose purpose it is to keep the power reserve constant.

2.5 The board considers that there is no synergy between the two distinguishing features.

Concerning the first distinguishing feature, the board has already noted that NPL3 states explicitly in the abstract that the control scheme is not limited to wind turbines but is also applicable to solar generators, of which the claimed photovoltaic installations are the most common example. For this reason alone, the provision of feature (a) does not involve an inventive

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step. The board wishes to note further, that, similar to the case in decision T 1841/11, if one accepts NPL3 as starting point, arguing that it would not be straightforward to apply the control scheme to photovoltaic installations in NPL3, or that this would require more than common general knowledge, would not constitute an argument in favour of inventive step, but rather an argument that this document is not in fact a promising starting point, see T 1841/11, reasons, point 4.1.

Concerning the second distinguishing feature, the list of criteria in feature (d1) is vague and broad, and the proprietor did not explain any technical effect connected to the criteria mentioned, in particular for the criterion "external requirements". It is absolutely normal for larger power generating installations that, in order to be authorised to feed power into the grid, it has to meet requirements set by the utility grid provider. It is therefore obvious to choose a setpoint for the active power reserve in response to "external requirements". Indeed, the board has some doubts as to whether this can be considered a feature with technical content at all, or rather one with administrative content, but this is not important here, as it is in any case obvious. NPL3 also clearly points out on page 986 in the penultimate paragraph in the left column that part-loading of wind turbines means a variable financial loss, as not all available wind energy is converted into electricity. It would be immediately apparent to a skilled person in view of this disclosure that the trade-off between revenue loss and power quality could be optimised by setting the power reserve as small as possible but large enough to comply with grid requirements. Lastly, NPL3 is already concerned with keeping the output power of the installation

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constant and for this purpose already suggests setting the active power set point based on an installation power output variation rate control loop. Thus also this criterion is obvious.

- 2.6 It follows that the subject-matter of claim 1 of the main request does not involve an inventive step.
- 3. Claim 8 of the Main Request Admissibility of
 Objection of Lack of Inventive Step in View of NPL5 and
 E14
- 3.1 The board did not exercise their discretion pursuant to Article 12(4) RPBA 2007, applicable by virtue of Article 25(2) RPBA 2020, not to take into account the objection of lack of inventive step in view of NPL5 and E14.
- 3.2 The opponent raised the objection of lack of inventive step against claim 8 based on the combination of documents NPL5 and E14 for the first time in their statement of grounds of appeal. Moreover, the opponent argued that the sole difference between the method of E14 and that of claim 8 of the main request was that claim 8 referred to a photovoltaic installation whereas that of E14 referred to a wind farm. NPL5 suggested that reactive power control was also known in photovoltaic installations.

The proprietor dealt with this objection in substance in their reply dated 27 October 2017 without raising any objection as to its admissibility.

The board gave a preliminary opinion concerning this question in their communication pursuant to Article

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- 15(1) RPBA 2020 on the basis of these submissions and in view of the fact that the opposition division considered the novelty of the subject-matter of claim 8 of the main request in view of NPL5 and in view of E14 in detail in points 6.7.1 and 6.7.3 of the decision under appeal.
- 3.3 In the board's view, the main facts underlying the objection were discussed in the first instance proceedings. The only new aspects of the proprietor's objection concern mainly the legal assessment of these facts. The board was therefore satisfied that by taking this objection into consideration, the appeal was nevertheless directed to issues that had been discussed in the opposition proceedings. The absence of any objection by the proprietor prior to the oral proceedings corroborated the board's preliminary view, and the proprietor did not present any argument as to why the board's preliminary view of taking the objection into account was incorrect. The board notes that the proprietor's objection against the admissibility of the opponent's objection, presented for the first time at the oral proceedings, could itself be considered a change in the proprietor's appeal case, for which no special circumstances were presented.
- 4. Claim 8 of the Main Request Lack of Inventive Step in View of NPL5 and E14
- 4.1 The subject-matter of claim 8 does not involve an inventive step within the meaning of Article 56 EPC in view of documents NPL5 and E14.

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4.2 The opponent considers document NPL5 to disclose the closest prior art. NPL5 discloses a reactive power management method of a photovoltaic installation with a single converter. This was not disputed by the proprietor.

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The technical problem was therefore the adaptation of the reactive power management method to systems with a plurality of converters. This was not disputed by the proprietor.

4.3 According to the opponent, E14 concerned a reactive power management method of a wind farm with a plurality of electric converters. A skilled person was aware of the similarities between photovoltaic installations and wind farms and would therefore have consulted E14. This was not disputed by the proprietor.

According to the opponent, E14 disclosed in the abstract and the characterising portion of claim 1 of E14 that in order to enable reactive power control, a distributed controller was provided, which consisted of a main controller (Oberregler 73), which calculated a voltage setpoint, and an auxiliary controller (Unterregler 184) for each wind turbine, to which this voltage setpoint was communicated and which calculated from that local reactive power setpoints.

All that feature (e) of claim 8 of the main request required was that the reactive power generated or consumed by each electronic converter was determined in a coordinated manner through a block that executes an optimisation algorithm based on the three criteria defined there.

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Claim 8 therefore does not contain any limitation as to the instance in which this optimisation algorithm was executed. It is therefore left open, whether the algorithm is executed in the park master or in the local control units. Obviously, in E14 there has to be a coordination among the wind turbines because according to paragraph [0014] as a result of the control, a desired reactive power is achieved at the feeding point of the wind farm to the grid. The reactive power is set by a voltage set point by the park master and then further control is implemented in the auxiliary controllers of each wind turbine, which according to paragraph [0017] take into account the criteria (i) to (iii) of feature (e) of claim 8.

4.4 The proprietor argued that if each electronic converter determines said reactive power locally, as is the case in E14, there cannot be any coordination among the different electronic converters in the determination of the reactive power to be generated by each electronic converter. The optimisation algorithm according to feature (e) could not be executed locally since it had to take into account as criteria the active power of each electronic converter and the reactive power of each electronic converter.

The board does not find these arguments persuasive. Clearly, in E14 as a result of the control the reactive power of the entire wind farm is set to a desired global value, see E14 paragraph [0014], last sentence and paragraph [0008], and the characterising portion of claim 1. The proprietor did not explain how a global reactive power could be set without coordinating the individual wind turbines, and the board considers this simply impossible. The board further wishes to mention paragraph [0025] of E14, which discloses that the park

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master controller redistributes the setpoints, if a local controller signals its incapability of providing the required reactive power. Re-distributing reactive power setpoints is again a clear disclosure of a determination in a coordinated manner. The proprietor fails to correctly take into account that a distributed control scheme is disclosed in E14 and considers the local aspect of it in isolation. The local determination, however, is clearly based on global setpoints, which clearly coordinate the local controllers.

Furthermore, the board agrees with the opponent that "a block" is an expression that refers to a diagram representing a control scheme, but it is not a technical feature that implies where the optimisation algorithm is physically executed. In particular, claim 8 does not exclude a distributed algorithm involving a global and local controllers. All that feature (e) requires is that the active and reactive power of each converter is taken into account in a coordinated manner.

The opponent argued that according to paragraph [0017] the three criteria enumerated in feature (e) were disclosed. This was not disputed by the proprietor.

4.5 It follows that the subject-matter of claim 8 of the main request does not involve an inventive step.

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- 5. Claim 11 of the Main Request Admissibility of Objection Based on NPL3
- 5.1 The board decided not to admit the new objection of lack of inventive step in view of NPL 3 against claim 11 of the main request.
- 5.2 An objection against claim 11 of the main request based on document NPL3 was raised by the opponent for the first time in the oral proceedings before the board. The chairman drew the opponent's attention to the fact that this was an amendment to their appeal case made after the summons and that pursuant to Article 13(2) RPBA 2020 such an amendment was admissible only if there were exceptional circumstances justifying it.

The opponent argued that the discussions of claim 1 in view of NPL3 demonstrated that necessarily claim 11 also lacked an inventive step in view of NPL3, and that they had argued since the opposition proceedings that claim 1 lacked an inventive step in view of NPL3. These are however clearly not special circumstances within the meaning of Article 13(2) RPBA 2020. The discussion relating to claim 1 during the oral proceedings before the board did not bring to light any new aspects which could be seen as relevant to the question as to whether also the subject-matter of claim 11 might not involve an inventive step over NPL3. There was therefore no reason why the opponent could not have raised this new objection at an earlier stage in the proceedings. Consequently, this amendment of the opponent's appeal case is not to be taken into account.

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- 6. Claim 11 of the Main Request Inventive Step in View of NPL4
- 6.1 The subject-matter of claim 11 involves an inventive step within the meaning of Article 56 EPC in view of document NPL4.
- 6.2 The opponent argued that NPL4 disclosed features (a) to (g3) with the exception of feature (b1), namely the presence of reactive power management means. The proprietor argued that contrary to the opponent's assertion, features (g2) and (g3) were not disclosed in NPL4.

The board is not persuaded by the attempt of the opponent to identify feature (g3), "means for sending active power setpoints to each power control minimum units [sic]", with shutting down the PV installation as disclosed in NPL4. This appears to the board to be overstretching the meaning of "setpoints". In the framework of a control scheme, a setpoint is a target value for a quantity and deviations from the target value are corrected. This is obviously not the case when the PV installation is shut down. Furthermore, the feature reads "setpoints" in plural, whereas the opponent's argument merely refers to a single "setpoint", namely zero.

6.3 Concerning feature (g2), the opponent argued that NPL4 disclosed maximum power point tracking. In maximum power point tracking, the working point voltage of the individual solar generators was swept across the entire possible range in order to determine the maximum power point. According to this argument, the photovoltaic strings during the sweep were in reserve mode, because their active output power was limited, while the

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photovoltaic strings working at the maximum power point were in observer mode. As an alternative line of argument, the opponent argued in the oral proceedings before the board that any PV string which was not in MPP mode could be regarded as being in reserve mode.

The board is not persuaded by this argument. In the context of claim 11, in particular features (g2) and (q3), it is apparent to a skilled person that the active setpoints sent to each power control minimum unit are the setpoints that determine the active power output in reserve mode. Even if the claim does not state this explicitly, it would be inappropriate to read the claim as a loose collection of features without any interrelation. As is usual in control theory, a controller attempts to avoid any deviation from a setpoint. Contrary to this understanding of the claimed reserve mode, the board cannot recognise that the sweep phase of maximum power point tracking can be considered a control of the output power. This mode neither involves prescribing a setpoint, nor providing a feedback if the actual value deviates from the setpoint, nor any attempt to correct deviations from the setpoint. Furthermore, in sweep mode, when searching for the maximum power point, the output power is not prevented from reaching that maximum point and is thus not limited as is required by claim 11 for the reserve mode.

The board is also not persuaded by the opponent's argument that the expression "reserve mode" in the context of a system claim implied nothing beyond some arbitrary limitation of the output power. The board rather considers this expression to imply that the limitation of the power is intended as a power reserve. While the board concedes that it is difficult to derive

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any limitations defined in general terms from this intended use, it is nevertheless possible to identify whether an operation mode can or cannot be considered to provide a power reserve. Concerning the example of the sweep of the voltage of a photovoltaic cell in order to track the maximum power point, such a power reserve cannot be provided. This mode takes only a very short time and hence would not be useful as a reserve of any kind as it is highly unlikely that a request for harnessing the power reserve would be made in the short time of the sweep. Rather, in order to count as a power reserve, the reserve power would have to be able to be harnessed on request. A similar argument was made by the opponent himself in the letter dated 20 October 2017 on page 9, second paragraph concerning the disclosure of NPL3.

The same holds true for any temperature management of NPL4. The opponent argued that it was implicit that a de-rating mode was disclosed in NPL4. This mode was explicitly confirmed to be a feature of the SunnyBoy 5000 TL in NPL9. If some of the photovoltaic units became too hot, the power was de-rated, i.e. limited. Again, while it is difficult to pinpoint in general terms the limitations implied by the expression "reserve mode", it is clear that a de-rated operation mode is not suitable to provide any reserve power. In order to be a power reserve, the additional reserve power needs to be able to be freely harnessed when required. However, in a de-rated mode, this is not possible without risking technical failure due to overheating or unless the temperature has come back to acceptable values.

6.4 Given that this objection of lack of inventive step by the opponent does not take into account all

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distinguishing features, the board does not find it persuasive.

- 7. Claim 11 of the Main Request Admissibility of NPL9 and NPL10 and Corresponding Objection
- 7.1 The board decided not to exercise their discretion pursuant to Article 12(4) RPBA 2007, applicable by virtue of Article 25(2) RPBA 2020 not to take into account documents NPL9 and NPL10 or the corresponding objection of lack of inventive step based on them.
- 7.2 Documents NPL9 and NPL10 were filed for the first time with the opponent's statement of grounds of appeal.

The proprietor argued that the documents and the objection against the subject-matter of claim 11 of the main request based on them should not be admitted because they could have been filed in the first instance proceedings.

The opponent argued that documents NPL9 and NPL10 as well as the objection of lack of inventive step against claim 11 of the main request based on them should be admitted since claim 11 was filed only shortly before the oral proceedings before the opposition division, and since the examination of the amended claim 11 took place only during the oral proceedings. Thus the opponent only became aware of the full reasoning through the impugned decision. Also, the amendments to claim 11 were partly based on the description.

7.3 The board agrees that the opponent could have become aware of the assessment of the opposition division only during the oral proceedings and through the reasons of

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the impugned decision. Moreover the board also considers the amendments to claim 11 to be substantial, involving amendments from the description. In particular, by filing NPL9 and NPL10, the opponent attempted to address the opinion of the opposition division according to which NPL4 did not disclose sending active power setpoints to the individual photovoltaic strings. NPL9 discloses a constant voltage mode, which in the opponent's view shows that the product described in NPL4 has the capability of sending power setpoints. NPL10 was filed as evidence that the manual NPL9 was made public.

The proprietor merely asserts that NPL10 was not sufficient proof for the public availability of NPL9. However, in light of the publication NPL4 and the delivery note NPL10, position 40, the board has no reason to doubt that the product "Sunny Boy 5000 TL" as well as its manual NPL9 were publically available, in particular in the absence of any arguments that could establish reasonable doubt.

The further arguments of the proprietor concern the relevance of NPL9. However, the criterion to be applied when exercising the discretion pursuant to Article 12(4) RPBA 2007 is whether facts, evidence or requests could have been filed in the first instance proceedings, not how relevant they are.

Given the above considerations, the board was satisfied that admitting NPL9 and NPL10 did not lead to the appeal being directed to new matters not discussed in the first instance proceedings, but rather to providing further details of matter that had been discussed.

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- 8. Claim 11 of the Main Request Inventive Step in View of NPL9 and NPL10
- 8.1 The opponent argues that document NPL9 disclosed further features of the product Sunny Boy that was disclosed in NPL4, and that both documents had to be seen in combination.
- 8.2 The board has come to the conclusion that the subjectmatter of claim 11 of the main request involves an inventive step even if the further features of NPL9 are taken into account.
- 8.3 Leaving aside the question whether voltage setpoints in constant voltage mode can be considered to be active power setpoints within the meaning of claim 11, NPL9 does not disclose that the PV module strings can be simultaneously operated partly in MPP mode and partly in constant voltage mode as required by claim 11.

The opponent contended that claim 11 was not limited in this respect. However, the board is not persuaded by this assertion.

According to feature (c1) the energy production of each power control minimum unit is individually controlled. According to feature (g2) the system has means for establishing the operating mode of each power control minimum unit, and according to feature (g3) there are means for sending active power setpoints to each of the power control minimum units.

Even if the wording of claim 11 could linguistically be construed to cover the case that the system was not limited to being able to operate the power control minimum units simultaneously in different modes, the

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board is of the opinion that this would be an interpretation which the skilled person would rule out. Rather, the skilled person would understand the recurring emphasis of the individual control of the power control minimum units as limiting the claimed system to having the ability to set the mode of each power control minimum unit independently of the modes of the other power control minimum units.

Given this understanding of claim 11, NPL9 contains no direct and unambiguous disclosure that some of the PV module strings can be operated in MPP mode while at the same time others are operated in constant voltage mode. During the oral proceedings, the opponent argued that this aspect was disclosed in NPL4. The board agrees only insofar as NPL4 discloses that the three PV module strings according to NPL4 can be different. However, it does not follow from this that they can be operated simultaneously in different modes.

Given that the objection of lack of inventive step based on NPL4 also seen in connection with NPL9 does not take all distinguishing features into account, the board does not find it persuasive. In particular, the opponent has not formulated any technical problem based on the further distinguishing feature or explained why the solution to that problem would have been obvious. As it is formulated, the objection is partly based on the mere assertion that implementing the distinguishing features would have been obvious.

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- 9. First to Sixth and Eighth to Sixteenth Auxiliary Requests
- 9.1 Since each of the eighth to fifteenth auxiliary requests includes a claim with identical wording to that of claim 1 of the main request, the conclusion reached for claim 1 of the main request (see 2.6 above) applies also to these auxiliary requests.

They are therefore not allowable.

9.2 Since each of the first to sixth, ninth to fourteenth and sixteenth auxiliary requests includes a claim with identical wording to that of claim 8 of the main request, the conclusion reached for claim 8 of the main request (see 4.5 above) applies also to these auxiliary requests.

They are therefore not allowable.

- 9.3 The opponent requested in the letter dated 20 October 2017 that the first to sixth auxiliary requests not be admitted pursuant to Article 12(4) RPBA 2007. Given the board's conclusion that these requests are not allowable, the question of their admissibility can be left open.
- 10. Admittance of the Twenty-third Auxiliary Request
- 10.1 The proprietor and the opponent argued respectively that Article 12(6) RPBA 2020 and Article 13(3) RPBA 2007 were relevant for the admissibility of this request. Both of these arguments were incorrect, for the following reasons.

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In the present case, the proprietor's grounds for appeal were filed on 15 June 2017, i.e. before the entry into force of the revised RPBA. Thus, under the transitional provision of Article 25(2) RPBA 2020, Article 12(6) RPBA 2020 is not applicable.

Also in the present case, the summons to oral proceedings was notified on 5 October 2020, i.e. after the entry into force of the revised RPBA. Therefore, the exception of Article 25(3) RPBA 2020 does not apply, so that Article 13(3) RPBA 2007 is not relevant.

- Given these dates, it is clear from Article 25(1) and (3) RPBA 2020 that Article 13(2) RPBA 2020 is the relevant provision for the admissibility of this request. According to this provision, an amendment to a party's appeal case after notification of the summons shall, in principle, not be taken into account unless there are exceptional circumstances, which have been justified with cogent reasons by the party concerned. It is thus necessary to determine whether such exceptional circumstances have been established with respect to the filing of the twenty-third auxiliary request.
- In the present case, the proprietor responded to the communication under Article 15(1) RPBA 2020 with letter of 11 February 2021, filing seven auxiliary requests including the eighteenth auxiliary request. Then with a further letter dated 5 November 2021 they filed a further four auxiliary requests, including the twenty-third auxiliary request. Finally, during the oral proceedings before the board, after the discussion of all three independent claims of the main request, they requested that the twenty-third auxiliary request be considered before the eighteenth auxiliary request.

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- 10.4 Concerning the filing of the twenty-third auxiliary request with the letter of 5 November 2021, it is to be noted that there were no procedural developments between the filing of the letter of 11 February 2021 and the filing of that later letter. The proprietor indicated merely that these were a further response to the preliminary opinion of the board. This cannot justify such a piecemeal filing of responses, and in particular cannot establish the existence of exceptional circumstances within the meaning of Article 13(2) RPBA 2020.
- 10.5 Concerning the request to promote the twenty-third auxiliary request above the eighteenth auxiliary request, the proprietor argued merely that its admittance was equitable in view of the decision of the board to admit document NPL9. In this context the board notes two points. The first is that these two admissibility issues are entirely independent of one another, and that the reasons for admitting NPL9 had already been discussed in detail at the oral proceedings before the request to change the order of the requests was presented. Secondly, that change of order represented a change to the appellant's appeal case, since the twenty-third auxiliary request contained, in addition to a claim identical to granted claim 11 (i.e. identical to the sole claim of the eighteenth auxiliary request), a further independent claim which was an amended version of granted claim 8. It was thus apparent that the re-ordering of these two requests was merely an attempt to get broader protection than would have been provided by the eighteenth auxiliary request. This also clearly does not represent exceptional circumstances within the meaning of Article 13(2) RPBA 2020. That, as argued by

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the proprietor, such re-ordering of requests is frequently allowed in first instance opposition proceedings is not relevant, since Article 13(2) RPBA 2020 does not apply to such proceedings.

- 10.6 There are therefore no exceptional circumstances which would justify the changes of the proprietor's case represented by the filing of the twenty-third auxiliary request and its promotion above the eighteenth auxiliary request. The board therefore exercised its discretion under Article 13(2) RPBA 2020 not to take them into account.
- 11. Eighteenth Auxiliary Request
- 11.1 The eighteenth auxiliary request includes as sole claim a claim with wording identical to claim 11 of the main request.
- 11.2 Inventive Step

The board has already decided that the subject-matter of this claim involves an inventive step in view of document D4 and in view of NPL9 and NPL10 (see sections 6 and 8 above). Since no further objections of lack of inventive step against this claim have been raised by the opponent, the board concludes that the subject-matter of the claim of this request involves an inventive step within the meaning of Article 56 EPC.

11.3 Amendments

11.3.1 Claim 1 of the eighteenth auxiliary request was amended in compliance with the requirements of Article 123(2) EPC.

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- 11.3.2 The opponent objected in the reply to the proprietor's statement of grounds of appeal that claim 11 was amended in a manner which was not compliant with the requirements of Article 123(2) EPC.
- 11.3.3 According to the Case Law of the Boards of Appeal,
 Ninth Edition, July 2019, II.E.1.2.3, where the
 application documents of the European application as
 filed were a translation of the international
 application as it was filed, the content of the
 "application as filed" was that of the international
 application as it was filed. In the present case the
 application as filed is thus the Spanish international
 application WO 2010/018240 Al. The opponent argues that
 the feature (g2) of the sole claim of the eighteenth
 auxiliary request, according to which

"a power control minimum unit (1021 ... 102n) supplying the maximum active power available at a given time, without restriction, when operating under the observer mode (MO)"

was a mistranslation of the original passage on page 10, lines 4 to 7 of the international application as filed

"Cuando una UMCP trabaja en modo MO aporta la máxima potencia activa disponible <u>en cada momento</u> (dependiente de las condiciones meteorológicas), sin que exista ninguna restricción sobre ella."

The expression "at a given time" meant something different from "en cada momento". In particular, "en cada momento" meant "at any given moment" or more literally "in each moment", whereas "at a given time"

merely referred to a single predetermined point in time, rather than any predetermined point in time. The proprietor themselves argued that the translation "at a given time" was incorrect and that the proper translation should be "in each time".

11.3.4 The board is not persuaded by the opponent's argument because the expression "at a given time" would not be understood by a skilled reader to refer to a single point in time in the context of the claim. It may be true that more idiomatic and precise expressions exist, which would capture the meaning of the Spanish expression "en cada momento" more precisely. However, a skilled reader would readily perceive the expression "at a given time" in the context of the claim if interpreted literally as technically senseless. Hence they would not interpret the expression literally. Therefore, what this expression conveys is nothing else than that a power control minimum unit operating in observer mode supplies the instantaneous maximum power at any given time, not just at a specific point in time.

12. Conclusions

The main request, as well as the first to sixth and eighth to sixteenths auxiliary request are not allowable. The seventh and seventeenth auxiliary requests were withdrawn by the proprietor. The twenty-third auxiliary request is not taken into account. The claim of the eighteenth auxiliary request is allowable. The description has not yet been amended. The adaptation would have been too extensive to be made during the oral proceedings before the board. The parties agreed to a remittal to the opposition division

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for this purpose. The board therefore acceded to the eighteenth auxiliary request of the proprietor.

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 the claim of the eighteenth auxiliary request and a description to be adapted.

The Registrar:

The Chairman:



U. Bultmann

R. Lord

Decision electronically authenticated