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**Datasheet for the decision
of 15 April 2024**

Case Number: T 1375/21 - 3.4.02

Application Number: 15164449.9

Publication Number: 3086102

IPC: G01K17/06, F24D19/10, G01D4/00

Language of the proceedings: EN

Title of invention:
METHOD OF OPERATING A HEATING SYSTEM, HEATING SYSTEM AND USES
HEREOF

Patent Proprietor:
ista International GmbH

Opponent:
Techem Energy Services GmbH

Headword:

Relevant legal provisions:
EPC Art. 56, 100(c)

Keyword:

Grounds for opposition - subject-matter extends beyond content
of earlier application - main request (yes)
Inventive step - auxiliary request (no)

Decisions cited:

Catchword:



Beschwerdekammern
Boards of Appeal
Chambres de recours

Boards of Appeal of the
European Patent Office
Richard-Reitzner-Allee 8
85540 Haar
GERMANY
Tel. +49 (0)89 2399-0
Fax +49 (0)89 2399-4465

Case Number: T 1375/21 - 3.4.02

D E C I S I O N
of Technical Board of Appeal 3.4.02
of 15 April 2024

Appellant: ista International GmbH
(Patent Proprietor) Luxemburger Strasse 1
45131 Essen (DE)

Representative: Patentgruppen A/S
Aaboulevarden 31, 4th Floor
8000 Aarhus C (DK)

Appellant: Techem Energy Services GmbH
(Opponent) Hauptstrasse 89
65760 Eschborn (DE)

Representative: Keil & Schaafhausen Patentanwälte PartGmbH
Bockenheimer Landstraße 25
60325 Frankfurt am Main (DE)

Decision under appeal: **Interlocutory decision of the Opposition
Division of the European Patent Office posted on
14 June 2021 concerning maintenance of the
European Patent No. 3086102 in amended form.**

Composition of the Board:

Chairman R. Bekkering
Members: A. Hornung
G. Decker

Summary of Facts and Submissions

I. Both the opponent and the patentee appealed against the interlocutory decision of the opposition division maintaining European patent No. 3 086 102 in amended form.

The opposition division had found that the patent as amended according to a first auxiliary request filed with a letter of 26 March 2020 and the invention to which it related met the requirements of the EPC.

II. The opponent requested that the decision under appeal be set aside and that the patent be revoked. If the opponent's request for revocation of the patent could not be granted on the basis of its written submissions, it requested oral proceedings to be held.

III. The patentee requested that the decision under appeal be set aside and that, as a main request, the patent be maintained as granted or, as an auxiliary measure, that the patent be maintained as amended on the basis of the claims according to the first auxiliary request filed with the letter of 26 March 2020 and filed again with the statement of grounds of appeal. The set of claims of the present auxiliary request corresponds to the set of claims on the basis of which the opposition division decided to maintain the patent as amended.

IV. Independent claim 1 according to the patentee's main request reads as follows (the features of claim 1 are preceded by the numbering **1.1** to **1.13**):

1.1 "A method of operating a heating system (11) including heating arrangements (3) in at least two accommodation

units (2) of a building (1), said method comprising the steps of:

1.2 supplying fluid energy medium (10, 31) to the heating system (11) by a fluid energy medium supplier (7),

1.3 detecting a representation of energy consumed in the building (1) from the delivered fluid energy medium with a main meter (6) as detected main meter values (MMV), and

1.4 transmitting the detected main meter values (14) to a central data storage (16),

1.5 detecting a further representation of energy consumed in the building (1) from the delivered fluid energy medium with at least one additional main meter (12) as detected additional main meter values (AMMV) and

1.6 transmitting the detected additional main meter values (15) to at least one backend computer system (17),

1.7 receiving detected main meter values (MMV) from the central data storage (16) in said backend computer system (17) for allocation and/or correlation of the detected additional main meter values (AMMV) or derived representations of said detected additional main meter values,

1.8 detecting a representation of energy consumed in each of said accommodation units (2) from the delivered fluid energy medium with heat cost allocators or heat meters (5) as detected allocation values (AV) and

1.9 transmitting the detected allocation values (18) to said backend computer system (17) and/or central data storage (16),

1.10 establishing main meter heat consumption values (MMHCV) for said accommodation units (2) based on said detected allocation values (AV) and said detected main meter values (MMV),

1.11 establishing additional main meter heat consumption values (AMMHCV) for said accommodation units (2) based on said detected allocation values (AV) and said detected additional main meter values (AMMV)

and

1.12 reporting said main and additional heat consumption values (27, 28) to said accommodation units (2)

1.13 where the reporting frequency $f_{\text{rep,additional}}$ of said additional main meter heat consumption values (AMMHCV) is different from the reporting frequency $f_{\text{rep,main}}$ of said main meter heat consumption values (MMHCV)".

Independent claim 7 according to the patentee's main request reads as follows (the features of claim 7 are preceded by the numbering **7.1** to **7.10**):

7.1 "Heating system (11) for a building (1) including at least two accommodation units (2) with heating arrangements (3) comprising:

7.2 a fluid energy medium supply (10, 31) for the heating system (11) supplied by a fluid energy medium supplier (7),

7.3 a main meter (6) for detection of a representation of energy consumed in the building (1) from the fluid energy medium as detected main meter values (MMV), and

7.4 transmitting the detected main meter values to a central data storage (16), and

7.5 heat cost allocators or heat meters (5) for detection of a representation of energy consumed in each of said accommodation units (2) from the delivered fluid energy medium as detected allocation values (AV) characterized in that said system further comprises:

7.6 at least one additional main meter (12) for detection of a further representation of energy consumed in the building (1) from the fluid energy medium as detected additional main meter values (AMMV), and

7.7 at least one backend computer system (17) for receiving said detected additional main meter values (AMMV) transmitted by said additional main meter (12) and said detected main meter values (MMV) for allocation and/or

correlation of the detected additional main meter values (AMMV) or derived representations of said detected additional main meter values,

7.8 wherein the heating system (11) is arranged to establish main meter heat consumption values (MMHCV) and additional main meter heat consumption values (AMMHCV) for said accommodation units (2) based on said detected allocation values (AV)

7.9 together with said detected main meter values (MMV) and said detected additional main meter values (AMMV), respectively, and

7.10 wherein the heating system (11) is arranged to report said main and additional main meter heat consumption values (MMHCV, AMMHCV) to said accommodation units (2) with the reporting frequency $f_{\text{rep,additional}}$ of said additional main meter heat consumption values (AMMHCV) being different from the reporting frequency $f_{\text{rep,main}}$ of said main meter heat consumption values (MMHCV)".

Claim 7 of the auxiliary request differs from claim 7 of the main request only by the addition of the phrase "from the central data storage" to feature **7.7** (after the words "and said detected main meter values (MMV)". The amended feature in claim 7 of the auxiliary request is referred to as feature **7.7'**.

V. In a communication annexed to a summons to oral proceedings, the board informed the parties about its provisional and non-binding opinion according to which, *inter alia*, it was not convinced by the patentee's arguments according to which the subject-matter of claim 7 of the main request did not extend beyond the content of the application as filed and according to which the subject-matter of claim 1 of the auxiliary request involved an inventive step.

The communication referred inter alia to the following documents:

D1: EP 1 843 136 A2,

D5: An excerpt from the book "Handbuch zur Wärmekostenabrechnung", Frank Peters, 13th edition, 2007/08, pages 138 to 161.

Reference was made to the numbering of the features **1.1** to **1.13** and **7.1** to **7.10** of claims 1 and 7 of the main request, respectively, as used in the appealed decision, points 10 and 11, and in the parties' submissions.

The patentee's written submissions were designated as follows:

P1: statement of grounds of appeal, filed with the letter dated 13 October 2021,

P2: letter dated 4 March 2022 (reply to the opponent's statement of grounds of appeal).

The opponent's written submissions were designated as follows:

O1: statement of grounds of appeal, filed with the letter dated 22 October 2021,

O2: letter dated 4 March 2022 (reply to the patentee's statement of grounds of appeal).

VI. The board's provisional opinion as to the subject-matter of the patent as granted (main request) extending beyond the content of the application as filed was formulated in the board's communication, point **8**, as follows:

"8. Main request - Article 100(c) EPC

It seems that the subject-matter of the patent as granted (main request), in particular feature **7.7** of claim 7, extends beyond the content of the application as filed.

8.1 Feature **7.7** of claim 7 defines in general terms that the backend computer system receives main meter values (MMV). The source of the MMV is undefined in the claim. However, in the application as filed, namely in claim 5, there appears to be a basis only for a backend computer system which receives MMV specifically from the central data storage. As explained in the appealed decision, point 13.2, it cannot be directly and unambiguously inferred from any of the passages cited by the patentee in the application as filed, i.e. page 3, lines 10 to 13, page 5, lines 4 to 12 and page 11, lines 18 to 20, that the backend computer system may receive MMV from any unspecified source.

On the contrary, it appears that all the embodiments of the application as filed disclose that the MMV is systematically first transmitted from the main meter (MM) to the central data storage and only subsequently to the backend computer system. By omitting the feature that the backend computer system receives MMV from the central data storage, the skilled person is taught that there could be a direct transfer of the MMV from the MM to the backend computer system without passing through "a central data storage such as a data storage at the fluid energy medium supplier" (page 10, lines 20 and 21). Such a mode of operation of the heating system is fundamentally different from that originally disclosed. As explained by the opponent, even the meaningfulness of such a mode of operation would become questionable, since a direct connection between the MM and the backend computer system would render the existence of the additional main meter (AMM) redundant and, therefore, superfluous (O2, points 13

and 15). Therefore, the present heating system of claim 7 does not seem to be directly and unambiguously derivable from the application as filed.

8.2 The patentee puts forward the following arguments for claim 7 not extending beyond the disclosure of the application as filed:

8.2.1 According to the patentee, for the purpose of using the MMV for allocation and/or correlation of the additional main meter values (AMMV), "it doesn't matter where the detected main meter values are received from. It only matters that they are now received in the backend computer system" (P1, page 4, penultimate paragraph). Therefore, the omitted feature was not essential for the invention. "The generalisation which the omission may have caused is allowable because it is not inextricably linked to other features of the embodiment or to the function of the invention in light of the technical problem" (P1, page 4, sixth paragraph).

The board is currently not convinced by this argument. While it doesn't seem to matter for the sole purpose of allocation and/or correlation of the AMMV whether the MMV are received from a central data storage or directly from the MM, the omission of the feature "received from the central data storage" has the effect that a fundamentally different embodiment from the originally disclosed heating system is covered by the wording of the claim. It would appear to the board that this fundamentally different heating system cannot directly and unambiguously be deduced from the application as filed.

8.2.2 The patentee submits that support for the omission of the feature "received from the central data storage" is to

be found in the application as filed on page 3, lines 10 to 13, page 5, lines 4 to 12 and page 11, lines 18 to 20.

For essentially the reasons given by the opposition division in the appealed decision, point 13.2, and by the opponent (O2, points 18 to 20), the board cannot at present see in these passages any direct and unambiguous basis for the omission of the feature "received from the central data storage".

8.2.3 The patentee considers that the allegedly missing feature was actually already implicitly disclosed in claim 7 of the main request (P1, point 3.2.3).

The board is not convinced by this argument. On the one hand, claim 7 of the main request defines that the MMV are detected by the MM and that the MMV are transmitted from the MM to the central data storage (feature **7.4**) and, on the other hand, that the backend computer system receives the MMV (feature **7.7**). This wording of claim 7 of the main request, however, leaves undefined the source from which the backend computer system receives the MMV. In particular, it leaves open the possibility that the backend computer system receives the MMV directly from the MM. Therefore, the missing feature, according to which the MMV are received at the backend computer system from the central data storage, does not seem to be implicitly disclosed in present claim 7".

VII. The board's provisional opinion as to lack of inventive step of the subject-matter of claim 1 of the auxiliary request was formulated in the board's communication, points **9** and **9.4**, as follows:

"9. Auxiliary request

Claim 7 of the auxiliary request differs from claim 7 of the main request only by the addition of the phrase "from the central data storage" to feature 7.7. The amended feature in claim 7 of the auxiliary request is referred to as feature 7.7'.

[...]

9.4 Inventive step in view of D1 as closest prior art and common general knowledge

The board is of the preliminary opinion that the subject-matter of claim 1 lacks an inventive step.

9.4.1 Opponent's arguments in favour of lack of inventive step

(a) D1 discloses one or two main meters

The opponent, with its statement of grounds of appeal, submits a lengthy argumentation over 13 pages about what the knowledge of the skilled person is (O1, points 10 to 26) and why, based on that common general knowledge, the skilled person would recognize an implicit presence of a second main meter (AMM) in the heating system of D1 (O1, points 27 to 52).

In particular, on the basis of common general knowledge as described in D5, the opponent argues that in a heating system there was systematically a MM ("Tarifzähler") under the responsibility of the energy supplier or the utility provider (see e.g. O1, point 31: "ein Hauptmessgerät des Energieversorgers vorhanden ist"; O1, point 50: "offenbart D1 entsprechend üblicher Heizungsanlagen mit Heizkostenabrechnung einen Tarifzähler des

Energielieferanten zur Rechnungsstellung der Energiekosten"; O1, point 51: "die ohnehin vorhandenen Tarifzähler"). Moreover, the skilled person was aware that it had no power to modify the MM of the energy supplier in order to adapt it to the needs of the invention of D1 (O1, point 49: "Der für die Heizkostenverteilung zuständige Fachmann versteht, dass er auf den Tarifzähler des Energielieferanten in der Praxis keinen Einfluss hat und diesen nicht nach seinen Wünschen mit geeigneten Schnittstellen ausstatten kann"). Only in exceptional cases might the MM of the energy supplier be adapted to requirements of the invention of D1, as disclosed in [0012] of D1 (O1, point 49: "Unter bestimmten Umständen mag es möglich sein, auf einen zusätzlichen Zähler zu verzichten, bspw (...) wenn der Tarifzähler des Energielieferanten über eine geeignete Schnittstelle die benötigten Daten liefern kann (D1, Absatz [0012])). Dies versteht der Fachmann aber als Ausnahme zu dem üblichen Vorgehen"). Therefore, in general, i.e. in the cases where the MM of the energy supplier is not available for use in the invention of D1, D1 disclosed implicitly two separate main meters MM and AMM (O1, point 50: "Ist dies nicht der Fall, offenbart D1 separate Tarifzähler (die in allen Anlagen üblich und notwendig sind) und Endenergieverbrauchszähler").

(b) Distinguishing features **1.7** and **1.13**

According to the opponent, the subject-matter of claim 1 differed from the disclosure of D1 only in that it comprised features **1.7** and **1.13** (O1, point 52). The objective technical problem solved by these distinguishing features was how to avoid billing errors and how to reduce the burden on the

transmission channel and simplify the data processing, respectively (O1, point 54).

With respect to feature **1.7**, the opponent asserts that, due to legal provisions, the MMVs of the energy supplier's MM are necessarily transmitted to the energy supplier and then stored in a central data storage of the energy supplier. Furthermore, it was obvious to transfer these MMVs, which were indispensable for the billing of the primary energy, from the central data storage of the energy supplier to the backend computer system of the company in charge of issuing the invoices for the energy consumption of each accommodation unit (O1, point 55).

Concerning feature **1.13**, the opponent puts forward that the reporting frequency of the AMMVVs, used for regularly informing the consumer about their current consumption, e.g. a daily or weekly frequency, was obviously higher than the reporting frequency of the MMVs, used for annual billing purposes.

(c) If D1 disclosed only one main meter

Assuming that the MM (Tarifzähler 1; Endenergieverbrauchsähler) disclosed in D1 was the only MM of the heating system of D1 and merely fulfilled the specific tasks related to the invention of D1, data would be missing for drawing up the (annual) energy supplier's invoice and, hence, the legally prescribed distribution of heating costs (O1, point 60). In order to provide this missing data, a further MM had obviously to be installed in the heating system of D1, thereby fulfilling features **1.3** and **1.4** (O1, points 63 and 65).

Moreover, concerning features **1.7**, **1.10** and **1.12**, the task arose of supplementing the information already provided at high frequency in the accommodation units on the estimates of consumption costs and based on the data provided by the (additional) main meter disclosed in D1, with the data underlying the legally binding heating cost allocation (O1, point 60). This task was obviously solved by receiving the relevant data from the central data storage of the energy supplier at the backend computer system, where it was processed for low-frequency display of the official energy bill at the accommodation units (O1, point 64).

For these reasons, the opponent considered that the subject-matter of claim 1 also lacked an inventive step in view of D1 and common general knowledge if D1 were to be interpreted as disclosing only a single MM fulfilling the specific requirements of the invention of D1.

9.4.2 The board's preliminary opinion concerning the opponent's arguments a) to c) above:

(a) D1 discloses one or two main meters

The board is currently not convinced that D1 discloses two main meters. As stated by the patentee, "the general teaching of a document must be what is actually discloses [sic], explicitly or implicitly, and in the case of D1, this does not involve having two main meters to measure the total energy consumption" (P2, page 3, last paragraph). As further argued by the patentee, in view of "D1, [0012], describing that the existing tariff meter is used with a suitable interface" (P2, page 3, eighth paragraph), it would appear that the main meter described in D1 is

"the main meter known from the background and skilled person knowledge" (P2, page 3, seventh paragraph). As noted in the appealed decision, page 10, last paragraph, this view seems to be confirmed by the fact that claim 3 of D1 defines the "Tarifzähler" of D1 merely as a special type of the "Endenergieverbrauchsähler" of D1.

Therefore, the board is of the preliminary opinion that D1 discloses only one main meter, namely a main meter which is under the control of the energy supplier to provide data for the (annual) energy supplier's invoice and which is further adapted in D1 to fulfil the requirements of the invention of D1.

(b) Distinguishing features **1.7** and **1.13**

Whether feature **1.7** (and feature **1.13**) involves an inventive step seems to depend *inter alia* on whether D1 is considered to disclose one or two main meters and on which precise characteristics the main meter(s) has (have). Therefore, the question of whether feature **1.7** (and feature **1.13**) involves an inventive step is deferred until it is decided which main meter(s) is (are) disclosed in D1.

It is to be noted that, so far, neither the opposition division nor the patentee seemed to have found it necessary to comment on the opponent's argumentation of lack of inventive step of feature **1.7** alone (and feature **1.13**), as they considered that D1 did not disclose two main meters and that therefore the distinguishing features were actually features **1.3**, **1.4**, **1.7**, **1.10**, **1.12** and **1.13**.

(c) If D1 disclosed only one main meter

- (i) It would appear to be common general knowledge that a heating system in a building with accommodation units generally comprises a conventional MM for detecting MMVs, which are transmitted to a central data storage of the utility provider (features **1.3** and **1.4**).

- (ii) Moreover, it appears that a situation may arise in which such a conventional MM cannot be adapted to the requirements of the invention of D1, since, as the opponent submits in relation to D1, [0012], the existing MM must be equipped with a suitable interface (O1, point 42), but in practice the skilled person has no influence on the energy supplier's MM and cannot always equip it with suitable interfaces according to his wishes (O1, point 49). In such a situation, the skilled person would not abandon the implementation of the invention of D1 but consider adding an additional main meter (AMM) in order to implement the invention of D1. Therefore, the opponent's argumentation that it would be obvious to use two MMs in the system of D1 if the MM of the energy supplier could not be adapted to the requirements of the invention of D1 seems convincing. As disclosed in D1, [0046], the MM continuously detects MMVs, which are transmitted to the backend computer system of the heat consumption manager or property manager, so that by analogy it would be obvious for such an additional main meter to continuously detect AMMVs, which are transmitted to the backend computer system of the heat

consumption manager or property manager
(features **1.5** and **1.6**)

- (iii) Furthermore, the board, in its preliminary opinion, tends to agree with the opponent that it would be obvious to adapt the backend computer system of D1 to receive the MMVs from the central data storage for allocation and correlation of the AMMV's (O1, point 64). Then, in addition to the AMMHCVs established on the basis of the AMMV's and the allocation values (corresponds to the invention disclosed in D1, i.e. feature **1.11**), MMHCVs would also be established on the basis of the MMVs in order to avoid billing errors, which otherwise could occur if the billing was only based on the AMMV's (features **1.7** and **1.10**; see O1, point 54).

- (iv) Feature **1.12** defines the reporting of both MMHCVs and AMMHCVs to the accommodation units. D1, however, discloses only the reporting of AMMHCVs to the accommodation units. If it is confirmed that the technical effect of feature **1.12** does not go beyond the provision of more accurate and legally binding information about the data underlying the heating bill to the accommodation units (O1, point 61), it would appear to be obvious to adapt the heating system of D1 so as to report the MMHCVs to the accommodation units (feature **1.12**) in addition to the reporting of the AMMHCVs (O1, point 45).

- (v) The opponent's assumption that the MMHCVs are generally available on an annual basis (O1,

points 63 and 64), whereas the AMMHCVs are continuously available at the accommodation units (O1, point 60; D1, [0006]) seems to be convincing. Therefore, feature **1.13** seems to be obvious

(vi) In view of the above, and since it does not appear to be disputed by the patentee that the remaining features **1.1, 1.2, 1.8, 1.9** and **1.11** are not novel or at least do not involve an inventive step, the board comes to the preliminary conclusion that the subject-matter of claim 1 lacks an inventive step over D1 in combination with common general knowledge".

VIII. With a letter filed on 4 April 2024 the patentee withdrew its appeal and announced that it would not be attending the oral proceedings scheduled to take place on 4 July 2024.

IX. The oral proceedings, scheduled to take place on 4 July 2024, were cancelled then.

Reasons for the Decision

1. In the communication annexed to the summons, the board expressed its preliminary and non-binding view, along with the underlying reasons (see points VI. and VII. above), that the subject-matter of claim 7 of the main request extended beyond the content of the application as filed and that the subject-matter of claim 1 of the auxiliary request lacked an inventive step over D1 and common general knowledge.

2. The patentee did not rebut the board's preliminary opinion.
3. The board sees no reason to deviate from its preliminary opinion regarding added subject-matter and inventive step, which therefore becomes final.
4. It follows that the subject-matter of claim 7 of the main request extends beyond the content of the application as filed and the subject-matter of claim 1 of the auxiliary request lacks an inventive step over D1 and common general knowledge.
5. Thus, the ground for opposition under Article 100(c) EPC prejudices the maintenance of the European patent as granted (Article 101(2) EPC) and taking into consideration the amendments made according to the auxiliary request, the patent and the invention to which it relates do not meet the requirements of Article 56 EPC (Article 101(3) (b) EPC).

Order

For these reasons it is decided that:

1. The decision under appeal is set aside.
2. The patent is revoked.

The Registrar:

The Chairman:



L. Gabor

R. Bekkering

Decision electronically authenticated