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Paper 20
Date: March 22, 2023

PUBLIC VERSION

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

ECOBEE TECHNOLOGIES ULC,
Petitioner,

v.

CAUSAM ENTERPRISES, INC.,
Patent Owner.

IPR2022-01339
Patent 10,394,268 B2

Before BRIAN J. McNAMARA, MIRIAM L. QUINN, and JOHN A. HUDALLA, *Administrative Patent Judges*.

QUINN, *Administrative Patent Judge*.

DECISION
Granting Institution of *Inter Partes* Review
35 U.S.C. § 314

I. INTRODUCTION

Petitioner ecobee Technologies ULC ("Petitioner" or "ecobee") filed a Petition (Paper 2, "Petition") requesting an *inter partes* review ("IPR") of claims 1–11 and 13–19 ("the challenged claims") of U.S. Patent No. 10,394,268 B2 (Ex. 1001, "the '268 patent") pursuant to 35 U.S.C. §§ 311–319. Causam Enterprises, Inc. ("Patent Owner" or "Causam") filed a Preliminary Response. (Papers 8, 9 (public version), "Preliminary Response"). With the Board's authorization, Petitioner filed a Reply to the Preliminary Response (Paper 12, "Reply"), and Patent Owner filed a Sur-reply to the Reply (Papers 13, 15 (public version), "Sur-reply").

The standard for institution is set forth in 35 U.S.C. § 314, which provides that an *inter partes* review may not be instituted unless the information presented in the Petition and the Preliminary Response shows that "there is a reasonable likelihood that the petitioner would prevail with respect to at least 1 of the claims challenged in the petition." 35 U.S.C. § 314 (2018); *see also* 37 C.F.R § 42.4(a) ("The Board institutes the trial on behalf of the Director."). Upon consideration of the arguments and the evidence of record, we conclude that Petitioner has established a reasonable likelihood of prevailing in demonstrating the unpatentability of at least one challenged claim of the '268 patent. Accordingly, we grant Petitioner's request and institute an *inter partes* review.

II. BACKGROUND

A. Related Matters

The parties identify the following judicial matters that may affect or be affected by a decision in this proceeding:

Smart Thermostats, Load Control Switches and Components Thereof, ITC Investigation No. 337-TA-1277 ("the parallel ITC proceeding");

Causam Enterprises, Inc. v. ecobee, Inc., Case No. 6-21-cv-00748 (W.D. Tex.);

Causam Enterprises, Inc. v. Resideo Technologies, Inc., Case No. 6-21-cv-00749 (W.D. Tex.);

Causam Enterprises, Inc. v. Itron, Inc., Case No. 6-21-cv-00750 (W.D. Tex.);

Causam Enterprises, Inc. v. Alarm.com Incorporated, Case No. 6-21-cv-00751 (W.D. Tex.); and

Causam Enterprises, Inc. v. Xylem, Inc., Case No. 6-21-cv-00752 (W.D. Tex.).

Pet. 64–65; Paper 4, 3.

B. Patent Owner's Judicial Estoppel Argument

Patent Owner argues that in the parallel ITC proceeding ecobee has challenged the status of Causam as the owner of the '268 patent. Prelim. Resp. 21–24; Ex. 2001. According to Patent Owner, the disputed ownership of the '268 patent shows an inconsistent position taken by ecobee in this IPR. Prelim. Resp. 23. Because ecobee served the instant Petition on Causam, the argument goes, ecobee conceded that Causam has sufficient ownership interest in the '268 Patent, thereby contradicting ecobee's arguments in the ITC proceeding that Causam is not the rightful owner of the '268 patent. *Id.* at 23–24. Patent Owner argues that ecobee's assertion in the ITC proceeding "is a concession that [ecobee] has not identified all real parties in interest (including the patent owner), and has not provided

copies of all the required documents 'to the patent owner'" under 35 U.S.C. § 312(a), and "[t]he doctrine of judicial estoppel precludes this litigation approach and weighs in favor of denial of ecobee's Petition." *Id.*

Patent Owner's argument is unpersuasive. Petitioner points out, and we agree, that proper service of a Petition under the Board's rules is made through the correspondence address of record for the subject patent. 37 C.F.R. § 42.105(a). Petitioner asserts that it followed this procedure and Patent Owner does not argue otherwise. Reply 5; Sur-reply 5. Furthermore, the Board's rules require that Patent Owner identify each real party-in-interest. 37 C.F.R. § 42.8(b)(1). In this proceeding, Patent Owner identifies Causam as "the sole Patent Owner and Real Party-In-Interest." Paper 4. That ecobee has challenged in the ITC proceeding whether Causam holds proper title to the '268 patent does not negate that Causam has asserted full ownership here and that Petitioner followed the service requirements. Moreover, the Board's rules allow for a partial owner to defend the subject patent under certain conditions. 37 C.F.R. § 42.9. ecobee's challenge to Causam's ownership interest in the ITC proceeding is unrelated to service in this proceeding. Causam is responsible for correcting its evidence of sole ownership interest, if it needs correcting, or for modifying its real parties-in-interest identification in this proceeding if necessary. 37 C.F.R. § 42.8(a)(3), (b)(1) (providing that a party has 21 days to update its mandatory notices of a change in the real parties-in-interest for that party).

Consequently, we do not find ecobee's ITC challenge of rightful title by Causam in the '268 patent as a reason to deny institution under the doctrine of judicial estoppel.

C. Real Parties-in-Interest

Patent Owner "states that it is the sole Patent Owner and Real Party-In-Interest." Paper 4, 3. And Petitioner states that "[t]he real-parties-in-interest for this petition are ecobee Technologies ULC, ecobee Ltd., and Generac Holdings Inc." Pet. 64. Patent Owner disputes Petitioner's assertion. According to Patent Owner, Petitioner failed to identify another entity as a real party-in-interest or a privy and the entity, if properly named, would cause a bar to institution under 35 U.S.C. § 315(b). We address Patent Owner's contentions.

1. Factual Background

Patent Owner filed an infringement suit against Alarm.com, Inc. ("Alarm.com") on July 22, 2021. Ex. 2006. Patent Owner served the complaint a day later. Prelim. Resp. 2; Ex. 2007. The infringement suit against Alarm.com alleges that thermostats of Alarm.com infringe various claims of the '268 Patent. Ex. 2006 ¶ 23–24 ("Alarm.com complaint"). In particular, the complaint asserts that Alarm.com directly infringes claims 1–11 and 13–19 of the '268 patent via "smart thermostats and components thereof . . . including, but not limited to the Alarm.com Accused Products." *Id.* ¶ 54 (referring to the thermostats listed in paragraphs 23–24 and identified as the Accused Products).

On July 22, 2021, Patent Owner also filed an infringement suit against ecobee (Ex. 1009 ("ecobee complaint")), though Patent Owner still had not served the complaint when ecobee filed the instant Petition on July 28, 2022. Pet. 66.

Patent Owner now asserts that Alarm.com is a real party-in-interest (RPI) and that ecobee and Alarm.com are privies. Prelim. Resp. 3–21. In particular, Patent Owner relies on the terms of an agreement between ecobee and Alarm.com. Ex. 2002 ("Integration Agreement"). Patent Owner also relies on a press release dated May 19, 2021 in which ecobee announced a partnership with Alarm.com. Ex. 2005 ("press release"). According to Patent Owner, these documents evidence a substantial legal relationship between ecobee and Alarm.com, such that Alarm.com's status as a privy or an RPI renders this Petition, filed by ecobee, untimely under 35 U.S.C. § 315(b). We do not agree as explained in more detail below.

2. Legal Considerations

Petitioner bears the burden of persuasion to demonstrate that its petition is not time-barred under § 315(b) based on a complaint served on a real party-in-interest or a privy more than a year earlier. *Worlds Inc. v. Bungie, Inc.*, 903 F.3d 1237, 1242 (Fed. Cir. 2018); *Ventex Co., Ltd. V. Coumbia Sportswear N. Am., Inc.*, IPR2017-00651, Paper 152 at 4–5 (PTAB Jan. 24, 2019) (precedential) ("*Ventex*").

"Determining whether a[ ]party is a[n] [RPI] demands a flexible approach that takes into account both equitable and practical considerations," with the heart of the inquiry focused on "whether a petition has been filed at a [ ]party's behest." *Applications in Internet Time, LLC v. RPX Corp.*, 897 F.3d 1336, 1351 (Fed. Cir. 2018) (citation and internal quotation marks omitted) ("*AIT*"). Indeed, we must ask "who, from a 'practical and equitable' standpoint, will benefit from the redress" that the *inter partes* review might provide. *Id.* at 1349. The determination of an RPI

has no bright-line test—relevant considerations, however, may include, "whether a [ ]party exercises [or could exercise] control over a petitioner's participation in a proceeding, or whether a [ ]party is funding the proceeding or directing the proceeding." *Id.* at 1342–43 (citing Office Patent Trial Practice Guide, 77 Fed. Reg. 48,756, 48,759 (Aug. 14, 2012)[1]). The Board's precedential decision in *RPX Corp. v. Applications in Internet Time, LLC*, IPR2015-01750, Paper 128 (PTAB October 2, 2020) ("*RPX*"), applied these principles and found that a petitioner did not meet its burden primarily because of the relationship between the unnamed RPI as a member of the petitioner, and the business model of the petitioner. *Id.* at 35. Notably, the Board found evidence of an RPI relationship without a finding of control.

In *Ventex*, the Board determined that a party was an unnamed RPI based on a pair of contracts that evidenced the parties' relationships. *Ventex* at 7–8. The existence of an indemnification clause giving rise to an opportunity to control coupled with the exclusive manufacturing arrangement between the parties revealed, in that case, that the petitioner filed the IPR for the benefit of an unnamed RPI. *Id.* Ventex, as the manufacturer of Heatwave fabric made exclusively for Seirus, was unsuccessful in proving that Seirus was not an RPI, and therefore Ventex's petition was time-barred. *Id.* at 7–8, 10 (determining that in addition to gaining a direct benefit from the IPR, "it is clear that Ventex and Seirus had

[1] The same discussion of the RPI and privity frameworks is included in the Consolidated Trial Practice Guide dated November 2019, available at www.uspto.gov/TrialPracticeGuideConsolidated.

a specially structured, preexisting, and well established business relationship with one another, including indemnification and exclusivity arrangements").

The concept of "privity" is more expansive and encompasses parties that do not necessarily need to be identified in the petition as RPIs. Consolidated Practice Guide at 14. Privity is also a highly fact-based inquiry, similarly "focus[ing] on the relationship between the named IPR petitioner and the party in the *prior* lawsuit." *WesternGeco LLC v. Ion Geophysical Corp.*, 889 F.3d 1308, 1319 (Fed. Cir. 2018) (emphasis added). That is, whether a party is in privity with another depends on the nature of the relationship between the two; "it is important to determine whether the petitioner and the prior litigant's relationship—as it relates to the lawsuit—is sufficiently close that it can be fairly said that the petitioner [already] had a full and fair opportunity to litigate" the issues it now seeks to assert. *See id.* The inquiry "has a dual-focus on preventing the petitioner from now lodging a successive attack for which it already had a first bite, thus, protecting the defending party from an unwarranted second attack, while also ensuring that the petitioner is not unfairly limited in its ability to lodge its challenges if it has not had a full and fair opportunity to do so already." *Uniloc 2017 LLC v. Facebook Inc.*, 989 F.3d 1018, 1027–28 (Fed. Cir. 2021).

With these legal considerations in mind, we proceed to the analysis of the facts here.

3. Privity Analysis

Patent Owner leads with the privity allegation, and so we analyze it first. According to Patent Owner, ecobee and Alarm.com have had a

preexisting "substantial legal relationship with respect to the products accused of infringement by Patent Owner: smart thermostats having demand response functionality." Prelim. Resp. 3. Patent Owner contends that the Integration Agreement enables ecobee thermostats to use Alarm.com's Application Programming Interface (API) so that Alarm.com's professional dealers and installers can integrate the ecobee thermostats with Alarm.com's home solutions. *Id.* at 8. Patent Owner also contends that the Integration Agreement [redacted] *Id.* at 9. According to Patent Owner, its complaint against Alarm.com alleges that "Alarm.com's use of smart thermostats, including ecobee's smart thermostats," infringes various claims of the '268 patent, triggering an obligation for ecobee to defend Alarm.com. *Id.* at 10–12 (arguing that the Alarm.com complaint is not limited to Alarm.com's thermostats and would cover thermostats manufactured by a third party). Furthermore, Patent Owner cites the press release that announces the "partnership" between ecobee and Alarm.com, and argues that Alarm.com and ecobee have had a long-standing partnership and that, since 2015, the two companies have partnered on more than 40 programs that deliver grid management services to utilities and wholesale market operators. *Id.* at 7.

However, having a long-standing commercial relationship *alone* does not show whether the parties have a substantial "legal relationship" sufficient for a finding of privity. Indeed, Petitioner, which has the burden to show that Alarm.com is not a privy of ecobee, clarifies the commercial relationship between the entities explaining that ecobee and Alarm.com are

in fact competitors in the market for smart thermostats. Reply 1. Further, Alarm.com offers a home control platform that is not exclusive to ecobee's use. *Id.* Alarm.com's API is a communication interface that allows many smart thermostats (not just ecobee's) to communicate with the Alarm.com platform. *Id.* (citing Alarm.com's website information concerning the 40+ hardware partners). Petitioner also proffers that ecobee's thermostats are not exclusively made to work with Alarm.com—they integrate through other platforms, such as Amazon Alexa. *Id.* (citing ecobee's smarthome website). From these arguments and evidence we understand that, although ecobee is [redacted] ecobee's thermostats themselves are not manufactured for Alarm.com, nor is the API exclusively for ecobee's use. Ex. 2002 ¶ 9. Thus, this relationship is different from the intertwined exclusive commercial relationship of the two entities involved in *Ventex*.

Notably, the Integration Agreement fails to convey that Alarm.com and ecobee have more than an arm's-length licensor-licensee relationship. And Petitioner asserts unequivocally that the Integration Agreement is routine. Reply 2. Although Patent Owner contests Petitioner's assertion as lacking evidentiary support (Sur-reply 3), the Integration Agreement together with the press release and the circumstances made of record do not contradict Petitioner's assertion. In particular, we note that the Alarm.com complaint does not specifically accuse any of ecobee's products and services of infringement. Ex. 2006 ¶¶ 23–24, 54. Moreover, Patent Owner's act of filing a separate infringement lawsuit against ecobee undermines its arguments, because this suggests that Patent Owner's infringement contentions against ecobee are not coextensive with its infringement

contentions in the Alarm.com litigation. *See* Ex. 1009 ¶¶ 23–24. Thus, even if we were to take as true that ecobee [redacted] there is no evidence that the Alarm.com lawsuit [redacted] and that ecobee is acting to protect Alarm.com's interests here. Rather, the evidence of the separate complaints and the nature of the parties' relationship as characterized above point to ecobee acting independently of Alarm.com, including having no communications regarding the filing of the instant Petition. *See* Reply 2–3 (counsel for ecobee certifying that no communications exist); Ex. 3002.

Consequently, even though the Integration Agreement [redacted] we agree with Petitioner that the facts that Alarm.com has been sued independently from ecobee and that the Alarm.com complaint does not accuse ecobee products or services indicate there is no privity between ecobee and Alarm.com as it pertains to this IPR. Reply 3. There also is no credible evidence of [redacted] as argued by Patent Owner. There additionally is no evidence that ecobee is participating in the Alarm.com litigation, nor is there any evidence that ecobee has a credible risk of liability in the Alarm.com litigation. *WesternGeco*, 889 F.3d at 1319 ("it is important to determine whether the petitioner and the prior litigant's relationship—as it relates to the lawsuit—is sufficiently close that it can be fairly said that the petitioner [already] had a full and fair opportunity to litigate" the issues it now seeks to assert) . The totality of circumstances of record warrant finding that Petitioner has met its burden of showing that it is not a privy of Alarm.com for purposes of this proceeding.

4. Real Party-In-Interest Analysis

Patent Owner argues that Alarm.com is the real beneficiary of ecobee's actions here. Prelim. Resp. 17–18. The premise of this argument rests on the existence of their commercial relationship and the Integration Agreement between them. *Id.* at 18–19. Again, Patent Owner argues a [redacted] *Id.*; Sur-reply 2–3. Patent Owner characterizes the filing of the IPR by ecobee as a defense of Alarm.com notwithstanding that ecobee may be defending its own interests as well. *Id.* (citing *AIT*, 897 F.3d at 1347). We disagree with Patent Owner.

As stated above, the Alarm.com complaint does not accuse ecobee's products or services, and [redacted] Additionally, the commercial relationship of ecobee and Alarm.com does not create an RPI relationship. Both parties have been sued separately and independently for their own products. Petitioner argues, and we agree, that the fact that the entities are both defending the same patent in district court does not make one of them an RPI of the other. Reply 3; *see also* Consolidated Trial Practice Guide, 17.

Furthermore, in the *RPX* case, the petitioning entity's business model (as well as communications of record) indicated that filing the IPR was for the benefit of the entity's time-barred member. Reply 4; *RPX*, 21–22, 35. In contrast, ecobee sells smart thermostats (Reply 1), and we have no evidence to suggest that ecobee's business model is intended to benefit Alarm.com. In fact, ecobee and Alarm.com compete in the market for smart

thermostats. Reply 1, 4. Moreover, ecobee represents that it has had no communications with Alarm.com regarding this IPR. Reply 2–3; Ex. 3002. Accordingly, these factors from *RPX* do not support a finding that Alarm.com is an RPI.

The *Ventex* facts also are not applicable here. *See* Sur-reply 5 (Patent Owner arguing that *Ventex* expands the finding of an RPI to a petitioner and a business partner with a specially structured, preexisting, and well-established business relationship). As discussed above, ecobee and Alarm.com do not have the type of intertwined exclusive business relationship at issue in *Ventex*—[redacted] that suggested that the IPR was filed for the benefit of a time-barred party. *See Ventex*, 7–9. Those facts are not present here as stated above. And the agreement between ecobee and Alarm.com to use a standard communication interface has not been shown to be sufficiently close and intertwined to suggest that ecobee is acting for the benefit of Alarm.com.

That Alarm.com may legally benefit ultimately from ecobee's IPR is insufficient, alone, to imply an RPI relationship. Petitioner has explained sufficiently the circumstances such that we conclude that the commercial relationship between ecobee and Alarm.com is an arm's-length partnership for using a common API and they otherwise are competitors, thus bearing no indication that ecobee is acting to eliminate or reduce Alarm.com's liability by filing the instant Petition. Consequently, we determine that Petitioner has met its burden of proving that Alarm.com is not a real party-in-interest.

5. Conclusion

Petitioner has explained sufficiently the nature of its relationship with Alarm.com, the alleged RPI. We are satisfied that Petitioner has met its burden of showing that Alarm.com is neither a privy nor an RPI of ecobee for purposes of this proceeding.

D. The '268 Patent

The '268 patent, titled "Method and Apparatus for Actively Managing Consumption of Electric Power over an Electric Power Grid," relates to selectively enabling and disabling power consuming devices based on power control messages received at a client device from a load management server. Ex. 1001, codes (54) , (57) . In particular, the '268 patent describes an embodiment that "controls power distribution for a variety of electric utility companies or any other electric power grid operator(s) by actively monitoring the amount of power needed by each utility and supplying the required power by redirecting power from participating customers." *Id.* at 6:66–7:4. Customers permit the disabling of certain power-consuming devices during peak loading times so that, "[w]hen the serving utility needs more power than it is currently able to supply, the power load management system automatically adjusts the power distribution by turning off specific loads on an individual subscriber basis." *Id.* at 7:4–6, 7:20–23.

Figure 1 of the '268 patent, reproduced below, illustrates "an exemplary IP-based active power load management system." *Id.* at 7:66–67.

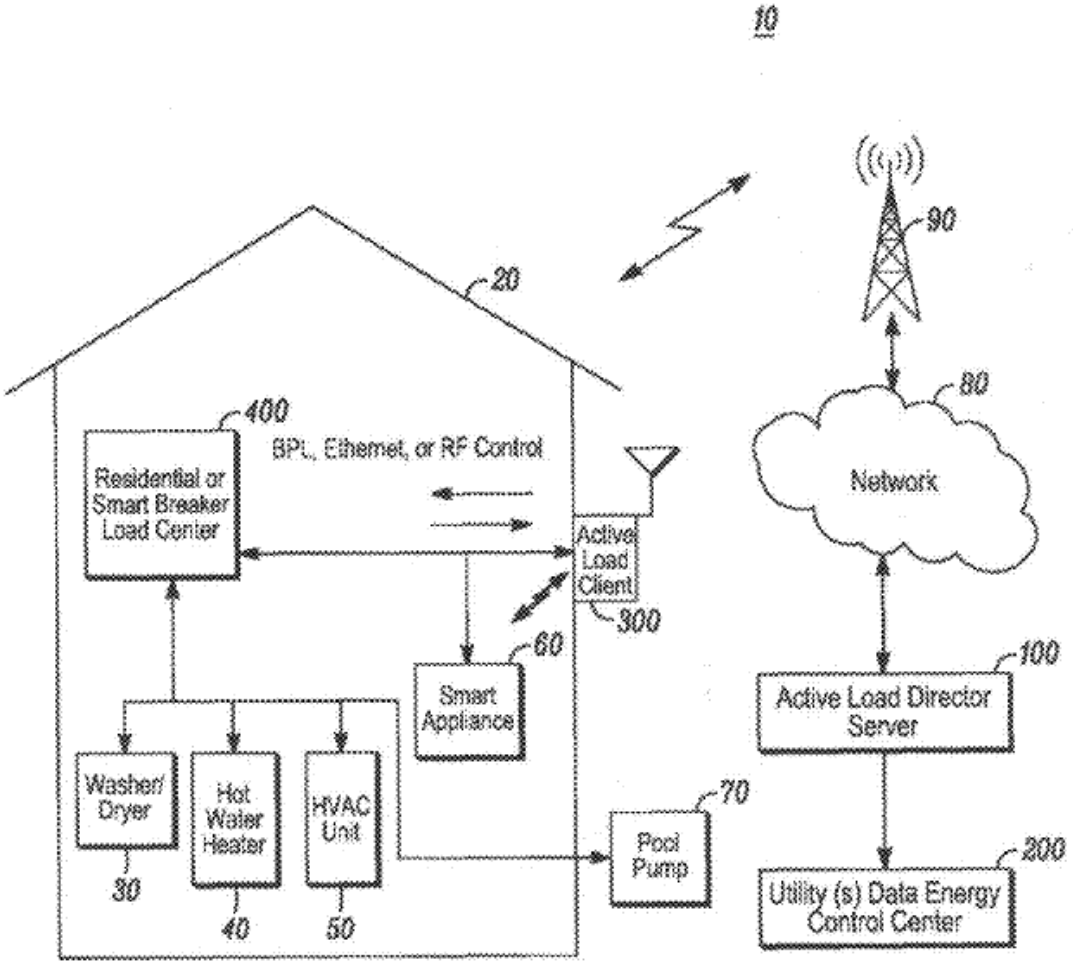

FIG. 1

Figure 1 "is a block diagram of an IP-based active power load management system." *Id.* at 3:49–50.

Figure 1 shows system 10 as including an active load client (ALC) 300, which is accessible through a specified address, such as an IP address.

Id. at 8:29–30. In an embodiment, client 300 communicates with residential load center 400 containing smart breaker modules that "are able to switch from an 'ON' (active) state to an 'OFF' (inactive) [state], and vice versa." *Id.* at 8:35–40. "Typically, each smart breaker controls a single appliance (e.g., a washer/dryer 30, a hot water heater 40, an HVAC unit 50, or a pool pump 70)." *Id.* at 8:47–49. In addition, client 300 may control an individual smart appliance 60 directly, for example, "without communicating with the residential load center [4]00." *Id.* at 8:50–52.

System 10 also includes active load director server 100 that "may serve as the primary interface to customers, as well as to service personnel." *Id.* at 9:7–9. Server 100 can receive commands from utility control center (UCC) 20 0, for example, a "Cut" command that "instructs the ALD server 100 to reduce a specified amount of power for a specified amount of time," and a "How Much" command that "requests information for the amount of power (e.g., in megawatts) that can be reduced by the requesting utility control center 100." *Id.* at 9:53–66.

Figure 2 of the '268 patent, reproduced below, illustrates "an exemplary active load director (ALD) server." *Id.* at 3:52–53.

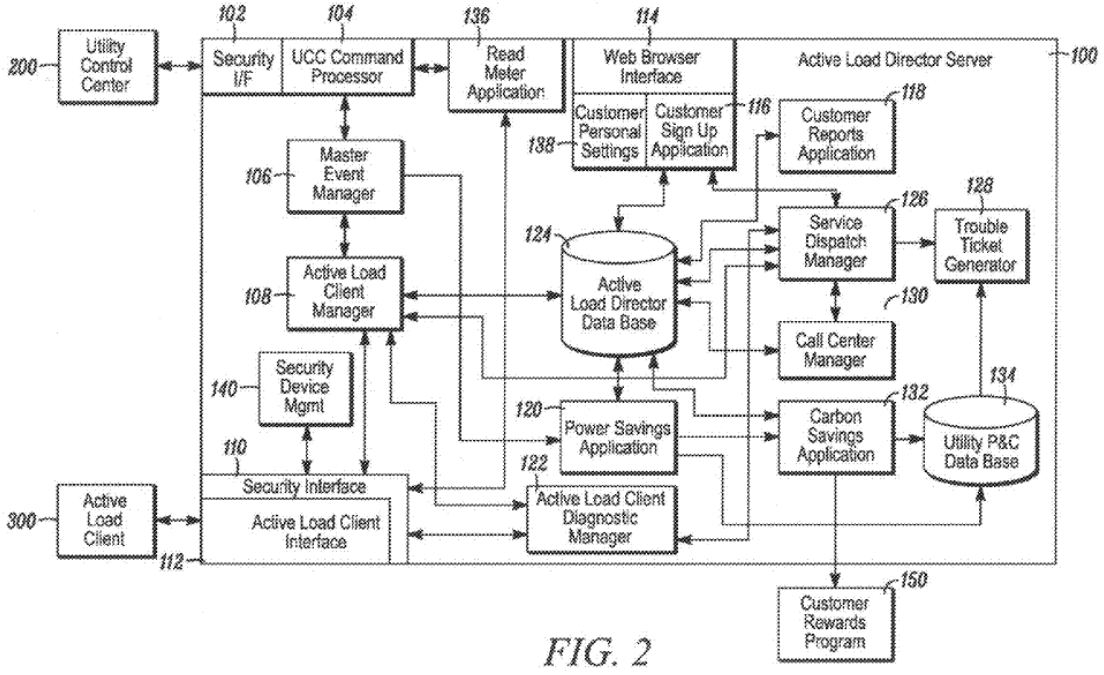

FIG. 2

Figure 2 "is a block diagram illustrating an exemplary active load director (ALD) server." *Id.*

With reference to Figure 2, in server 100, "master event manager 106 receives instructions in the form of transaction requests from the UCC command processor 104 and routes instructions to components necessary to complete the requested transaction, such as the ALC manager 108," which "routes instructions between the ALD server 100 and each active load client 300 within the system 10 through an ALC interface 112." *Id.* at 10:17–22. For example, "upon receiving instructions (e.g., a 'Cut' instruction) from the master event manager 106 to reduce power consumption for a specified utility, the ALC manager 108 determines which active load clients 300 and/or individually controlled devices to switch to the 'OFF' state based

upon present power consumption data stored in the ALD database 124." *Id.* at 11:28–34. Then, ALC manager 108 "sends a message to each selected active load client 300 containing instructions to turn off all or some of the devices under the active load client's control." *Id.* at 11:34–37.

Figure 3 of the '268 patent, reproduced below, illustrates "an exemplary active load client and smart breaker module." *Id.* at 3:55–56.

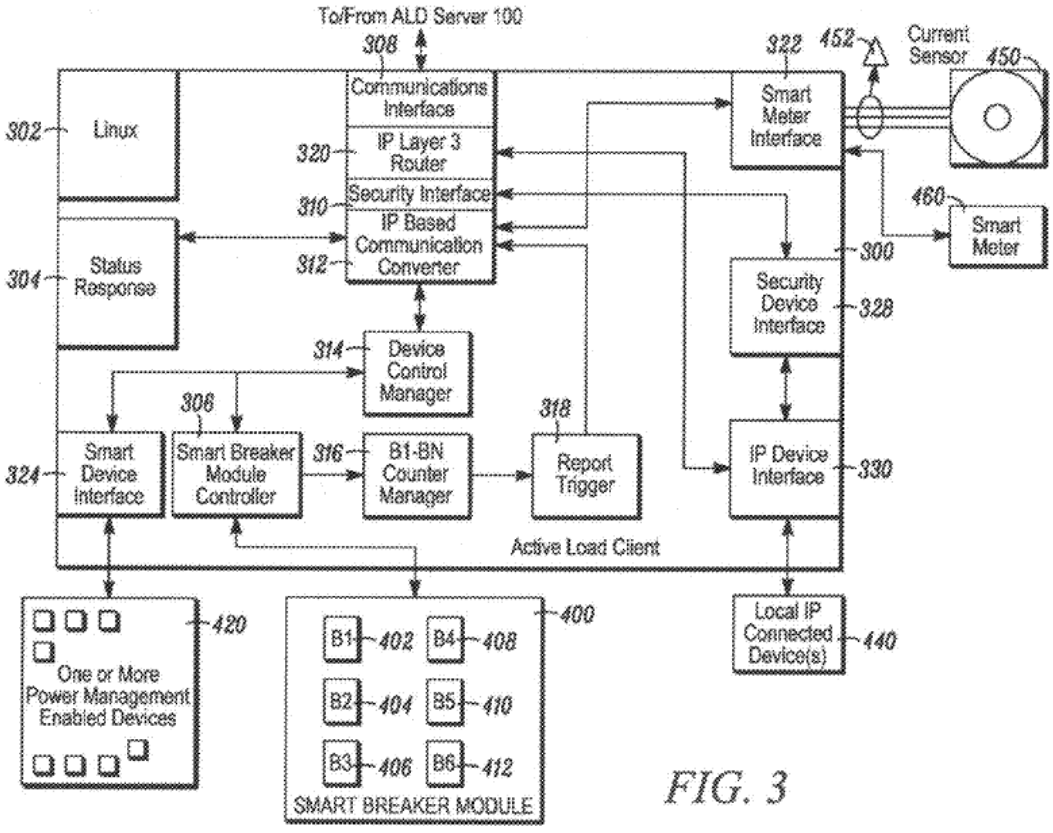

FIG. 3

Figure 3 "is a block diagram illustrating an exemplary active load client and smart breaker module." *Id.*

As shown in Figure 3, active load client 300 includes device control manager 314, which "processes power management commands for various controllable devices logically connected to the active load client 300," including "smart breakers 402-412 or other IP based devices 420, such as smart appliances with individual control modules." *Id.* at 14:45–50. In operation, "ALD database 124 contains information on the present power consumption (and/or the average power consumption) for each controllable device 402-412, 420 connected to each active load client 300." *Id.* at 20:33–37. ALC manager 108 uses this stored information for determining which devices to turn off upon receiving, for example, a "Cut" message, and sends a "'Turn Off' or equivalent transaction message or command to each active load client 300, along with a list of the devices to be turned off and a 'change state to off' indication for each device 402-412, 420 in the list." *Id.* at 20:37–45. ALC manager then logs "the amount of power (either actual or average), as determined from the ALD database 124, saved for each active load client 300." *Id.* at 20:45–49.

E. Illustrative Claim

Petitioner challenges claims 1–11 and 13–19 of the '268 patent. Pet. 6. Independent claim 1 is reproduced below.

> 1. A method for managing an electric power flow within an electric power grid, comprising:
>
> a client device receiving a power control message from a load management server, the power control message indicating at least one of an amount of electric power to be reduced and an identification of at least one controllable device to be instructed to disable the electric power flow to at least one associated power consuming device;

the client device issuing a power management command to the at least one controllable device, the power management command causing the at least one controllable device to disable the electric power flow to the at least one associated power consuming device to provide a reduction in consumed power; and

generating measurement and verification data corresponding to the reduction in consumed power.

Ex. 1001, 22:56–5.

F. Asserted Grounds and Testimony

Petitioner presents the challenges summarized in the chart below. Pet. 6.

Claim(s) Challenged	35 U.S.C. §	Reference/Basis
1–11, 13–19	103(a)	Ehlers[2]
1–11, 13–19	103(a)	Ehlers, Chen[3]

Petitioner supports its challenge of invalidity with a declaration of David M. Auslander, Sc.D., filed as Exhibit 1002 ("Auslander Decl.").

Patent Owner, at this stage of the proceeding, has not submitted any testimonial evidence.

G. Discretionary Denial Under 325(d)

Patent Owner argues that we should deny institution because "Ehlers was considered during prosecution . . . and the '268 patent issued over Ehlers." Prelim. Resp. 24. Patent Owner states in a conclusory manner that under 35 U.S.C. § 325(d), "the Office's prior consideration of prior art relied upon in a petition supports discretionary denial." *Id.* Other than the fact the

[2] US 2004/0117330 A1, published June 17, 2004 (Ex. 1004, "Ehlers").
[3] US 2004/0095237 A1, published May 20, 2004 (Ex. 1012, "Chen").

Ehlers appears on the face of the patent, Patent Owner's bare assertion offers no explanation as to the extent of the Examiner's consideration or why we should exercise our discretionary authority to deny institution. *Id.*

In determining whether to exercise discretion under § 325(d), the Board applies the framework established in *Advanced Bionics, LLC, v. MED-EL Elektromedizinische Geräte Gmbh*, IPR2019-01469, Paper 6 (PTAB Feb. 13, 2020) (precedential). The second part of the *Advanced Bionics* test, requires that Petitioner demonstrate the Office erred in a manner material to the patentability of the challenged claims. *Id.* Petitioner points out that the first and only action in the prosecution history was a rejection for obviousness type double patenting that was resolved following an Examiner interview and subsequent amendment to the specification and a terminal disclaimer. Pet. 5–6. In the absence of further prosecution history, it is impossible for us to determine the consideration the Examiner gave Ehlers. The Petition relies extensively on Ehlers as the basis for its challenge and maps the claim limitations to Ehlers. *See id.* at 8–53. Having considered the Petition and the absence of further evidence of the Examiner's consideration of Ehlers, we find that, for purposes of our analysis under *Advanced Bionics,* Petition has demonstrated the Office erred in a manner material to patentability. Consequently, we are not persuaded that we should exercise discretion and deny institution under § 325(d).

III. ANALYSIS

A. Level of Ordinary Skill in the Art

Petitioner contends that a person of ordinary skill in the art (POSA) "would have had a bachelor's degree in engineering, computer science, or a

comparable field of study, and at least three years of experience in energy management systems," but that "[a]dditional relevant industry experience may compensate for lack of formal education or vice versa." Pet. 12 (citing Auslander Decl. ¶ 16–18). Patent Owner does not dispute the level of ordinary skill in the art. *See* Prelim. Resp.

At this stage of the proceeding, and given the lack of dispute concerning the proposed level of ordinary skill in the art, we adopt Petitioner's assessment, which at this juncture appears reasonable given the specification of the '268 patent and asserted prior art of record.

B. Claim Construction

In *inter partes* review proceedings we construe claims using the same claim construction standard that would be used in a civil action under 35 U.S.C. § 282(b), as articulated in *Phillips v. AWH Corp.*, 415 F.3d 1303 (Fed. Cir. 2005) (en banc), and its progeny. *See* 37 C.F.R. § 42.100(b).

With respect to the claim term "power supply value (PSV)," Petitioner submits that a person of ordinary skill in the art "would understand that a PSV, in the context of the '268 patent, is 'an actual value that includes measurement and verification of the reduction in consumed power that is calculated at the meter or submeter, at a building control system, or at a device or controller that measures power.'" Pet. 7 (citing Auslander Decl. ¶¶ 35–39).

With respect to the claim term "device control manager," Petitioner submits that, although Petitioner asserted the term "should be construed as a 'means-plus-function' claim" in the parallel ITC proceeding (*id.* (citing Ex. 1006, Ex. A, 3–4)), "for the purposes of this IPR only, Petitioner adopts

PO's assertion that this term is not governed by §112, ¶6" and "should be interpreted as an element of the claimed system that is operable to issue power control instructions to a controllable device" (*id.* at 7–8 (citing Ex. 1006, Ex. A, 3; Ex. 1001, cl. 14; Auslander Decl. ¶¶ 40–42)).

Petitioner further submits that "the remaining terms of the claims require no express construction and should be given their plan and ordinary meaning." *Id.* at 8 (citing Auslander Decl. ¶ 43).

Patent Owner does not propose specific constructions for any claim terms. *See* Prelim. Resp.

At this stage of the proceeding, there is no dispute between the parties regarding any claim limitations, nor do we discern the need to expressly construe any claim limitations to resolve the controversy before us. *See, e.g.*, *Nidec Motor Corp. v. Zhongshan Broad Ocean Motor Co.*, 868 F.3d 1013, 1017 (Fed. Cir. 2017) ("[W]e need only construe terms 'that are in controversy, and only to the extent necessary to resolve the controversy.'" (quoting *Vivid Techs., Inc. v. Am. Sci. & Eng'g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999))).

C. Overview of the Asserted References

Petitioner relies on two references—Ehlers and Chen—as prior art. We summarize each reference below.

1. Overview of Ehlers (Ex. 1004)

Ehlers is titled "System and Method for Controlling Usage of a Commodity," and relates to "managing the delivery and usage of a commodity such as electricity." Ex. 1004, code (54), ¶ 2. Figure 1A of

Ehlers, reproduced below, illustrates an energy management system. *Id.* ¶ 19.

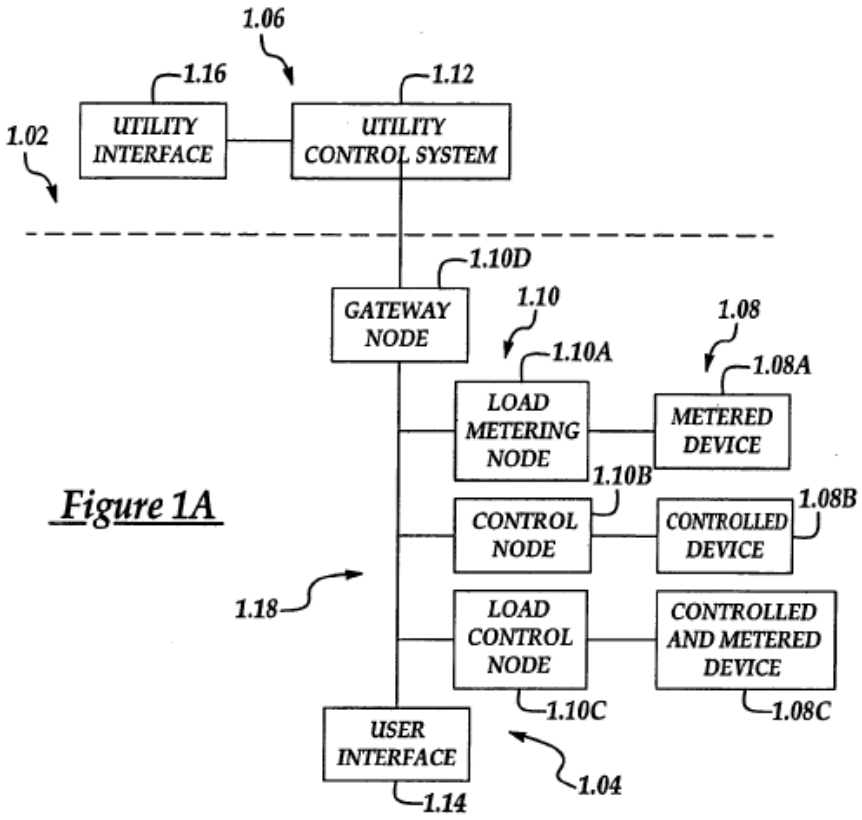

Figure 1A

Figure 1A "is a block diagram of an energy management system, according to an embodiment." *Id.*

"[S]ystem 1.02 allows at least one customer (or user) located at a customer site (indicated by reference number 1.04) and/or a utility (indicated by reference number 1.06) to manage delivery or usage of the electricity to the customer's site." *Id.* ¶ 59. The system includes several types of nodes, including: gateway node 1.10D for providing two way communication between gateway node 1.10D and the other nodes and utility control system

1.12; load metering node 1.10A for measuring "the instantaneous power being delivered (typically, in kWh [kilowatt-hours]) to the associated metered device 1.08A" or "total power delivered to the metered device 1.08A over a predetermined period of time"; control node 1.10D for controlling controlled device 1.08B; and load control node 1.10C for measuring "instantaneous power being delivered to the controlled and metered device 1.08C" and controlling device 1.08C. *Id.* ¶¶ 62–65. "Nodes 1.10 may be utilized with any type of device 1.08 for which it is desirable to control and/or measure its power usage." *Id.* ¶ 66.

A customer may access system 1.02 and "monitor and control the nodes 1.10 and/or the devices 1.08 through the user interface 1.14." *Id.* ¶ 77. And "utility 1.06 may also monitor and control the usage of electricity by controlling the nodes 1.10 and/or the devices 1.08." *Id.* ¶ 78. In particular, the utility "may define, modify, implement and engage one or more Power Supply Program[s] . . . which are designed to alleviate or reduce energy demand during peak periods." *Id.* A program can "shift discretionary residential loads out of peak demand periods and credit customers who participate with KWH rebates based on their actual (measured & verified) contributions." *Id.* ¶ 79. For example, Ehlers describes "measuring energy usage of a device 1.08 operated by a customer," where the device "has a known power rating," cutting off energy to the device for a first time period, and providing a rebate "to the customer based on actual energy savings as a function of the first time period, the measured energy usage, and the known power requirements." *Id.* ¶ 80.

2. Overview of Chen (Ex. 1012)

Chen is titled "Electronic Message Delivery System Utilizable in the Monitoring and Control of Remote Equipment and Method of Same," and relates to "controlling, monitoring and managing remote devices and, more particularly to, methods and systems for remotely adjusting states and/or characteristics of the remote devices for reducing demand/consumption." Ex. 1012, code (54), ¶ 2. Figure 17 of Chen, reproduced below, illustrates a system for monitoring and controlling remote devices. *Id.* ¶ 50.

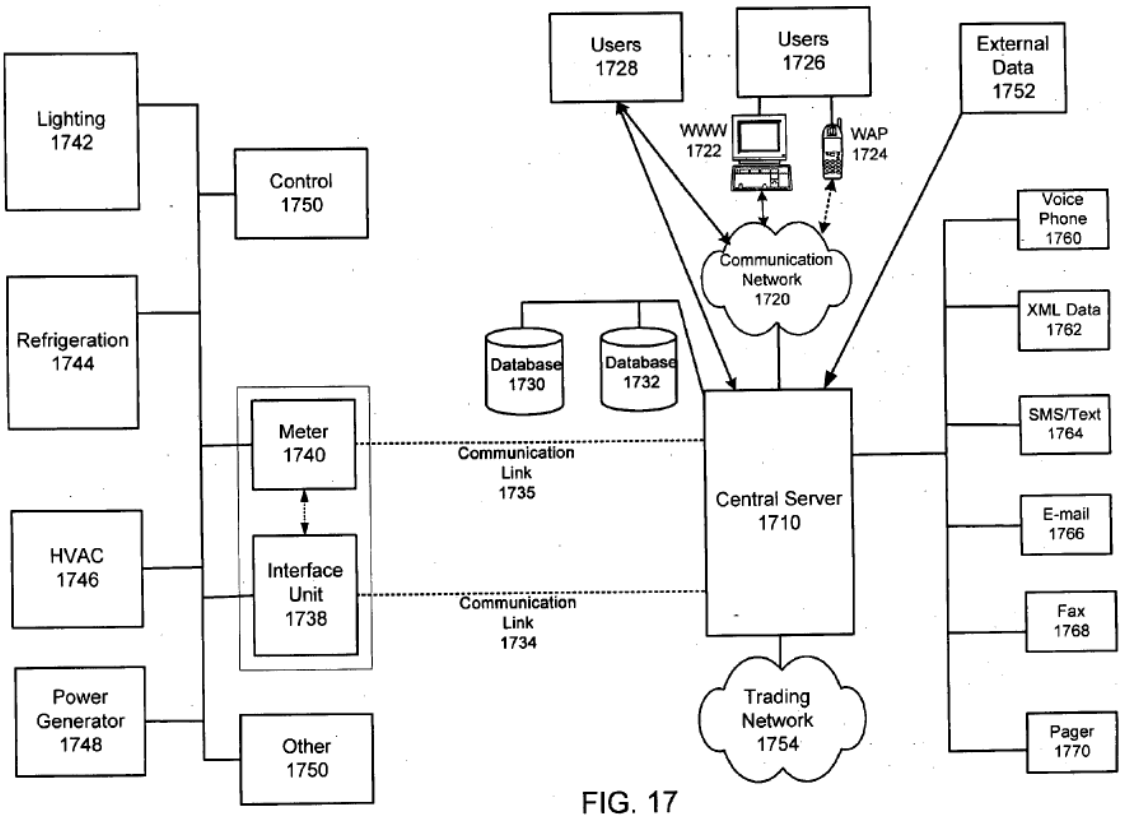

Figure 17 "is a diagram illustrating an exemplary system for monitoring and controlling remote devices." *Id.*

In the system shown in Figure 17, central server 1710 may "receiv[e] a command message and generat[e] a control signal or information message in response." *Id.* ¶ 55. A command message received at the central server "may include instructions for adjusting characteristics (e.g., state, operation control parameters, etc.) of the devices," and, in particular, "may include information related to an amount of adjustment, devices to be adjusted, . . . and/or other instructions." *Id.* ¶ 67. A control signal or informational message generated by the central server "may include instructions for monitoring, adjusting, controlling and/or otherwise manipulating the devices," including "lighting systems 1742; refrigeration systems 1744; HVAC systems 1746; generator 1748 . . . and other controllable devices 1750." *Id.* ¶¶ 57–58. "Meter device 1740, such as an energy meter or other component, may be used to measure an amount of consumption or other condition or action, which may then be fed back to the interface unit 1738, or to the Central Server 1710 via a separate communicate link 1735, or both." *Id.* ¶ 60.

D. Obviousness Grounds

Petitioner contends claims 1–11 and 13–19 ("the challenged claims") would have been obvious over Ehlers. Pet. 8–52. Petitioner also contends that the challenged claims would have been obvious over Ehlers and Chen. Pet. 52–62.

For the reasons that follow, we are persuaded that Petitioner demonstrates a reasonable likelihood of prevailing with respect to its obviousness challenge based on Ehlers.[4]

1. Analysis of Claim 1

Petitioner maps the limitations of claim 1 to Ehlers's disclosures such that:

a) the recited client device is taught by Ehlers's gateway node 1.10D (Pet. 13–14);

b) the recited power control message is taught by Ehlers's supply request (*id.* at 14–15);

c) the recited load management server is taught by Ehlers's utility control system (*id.* at 14);

d) the recited power management command is taught by Ehlers's commands, such as the supply request command, that cause the control node to disconnect the controlled devices (*id.* at 19–20);

e) the recited controllable device is taught by Ehlers's control node 1.10B and/or load control node 1.10C (*id.* at 17–18); and

f) the recited power consuming device is taught by Ehlers's controlled device 1.08B, such as, for example, a power-consuming pool pump (*id.* at 21–22).

Patent Owner does not dispute at this juncture the arguments and evidence presented by Petitioner regarding the mappings identified above.

[4] We do not address Petitioner's obviousness ground based on Ehlers and Chen because we find Petitioner's obviousness contentions based on Ehlers sufficient for institution

Based on our review of the Petition and the evidence presented, we find that Petitioner's mappings at this juncture are sufficient to show that Ehlers teaches or suggests the limitations of claim 1 identified above.

One limitation of claim 1 is disputed, however. Patent Owner argues that the Petition fails to show sufficiently that Ehlers teaches or suggests "generating measurement and verification data corresponding to the reduction in consumed power" (the "measurement and verification limitation"). Prelim. Resp. 24–38. We are not persuaded by Patent Owner's argument.

Patent Owner characterizes Ehlers as disclosing "rudimentary PROGRAM steps for reducing power consumption" and "basic algorithms" that fail to disclose the measurement and verification limitation. Prelim. Resp. 27. According to Patent Owner, Ehlers discloses providing a rebate based on actual energy savings, but that the measurement of energy usage used in the step of the PROGRAM occurred before implementing the PROGRAM. *Id.* at 28 (citing Ehlers ¶¶ 16, 80, Fig. 1C). Although Petitioner has pointed out that Ehlers discloses "actual energy savings" (Pet. 22–23, Ehlers ¶ 16) , Patent Owner argues that Ehlers's disclosure of "actual" does not mean "actual" at all. Prelim. Resp. 29. Rather, the argument goes, the energy savings are forecasted based on a measurement taken before the curtailment period, i.e., before the PROGRAM runs to cut off the power consumption of certain devices. *Id.* Patent Owner points out that the PROGRAM settings, shown in Figure 5C (not discussed in the Petition) , describe a forecasted energy savings as the instantaneous power that would be available if a PROGRAM were activated. *Id.* at 30–31. This

evidence, Patent Owner argues, shows that the Ehlers's "available" power is accepted by the PROGRAM as "actual" power savings and not further confirmed by "measurement and verification" as required by claim 1. *Id.* Additional arguments Patent Owner proffers point to this as a deficiency in Ehlers that the Petition does not overcome by other evidence or argument. *Id.* at 31–38.

We do not agree with Patent Owner. Petitioner has pointed out that Ehlers collects energy usage information with an "always on" connected mode that allows the utility to "know exactly how much load is available from each participating end use device 1.08 at a customer site 1.04." Pet. 23 (citing Ehlers ¶ 96). Ehlers verifies that curtailment has been initiated. *Id.* And the utility passes the collected curtailment data to the billing programs of the back-office for credits to be applied to the consumer "commensurate with their contributions." *Id.* (citing Ehlers ¶¶ 96–97). Petitioner relies on the testimony of Dr. Auslander to establish that a person of ordinary skill in the art would have understood Ehlers to suggest measuring and verifying methods to generate data corresponding to the reduction in consumed power. *Id.* (citing Auslander Decl. ¶¶ 85–88). With regard to HVAC systems, Petitioner points out that Ehlers discloses reducing the setpoint of the thermostat such that the actual usage for a particular setpoint for a site may be known or sampled, and the offsets can be computed and verified as needed to ensure that the reductions that are calculated are correct. *Id.* at 24–25 (citing Ehlers ¶ 141). These disclosures fairly suggest that Ehlers is always monitoring, and therefore measuring the power usage and reporting that usage to the utility. In fact, Ehlers states that an "actual usage" is

known such that offsets can be computed and verified. Ehlers ¶ 141. Ehlers supports this notion with an example of the calculation that uses actual measurement and verification: "if the [HVAC] unit *consumes* 5 kwh set at 72 [degrees] and *used* 4.6 kwh set at 76 [degrees,] then the savings is 0.4 kwh per hour." *Id.* (emphasis and alterations added). Accordingly, we are persuaded at this juncture that Ehlers teaches or suggests generating measurement and verification data corresponding to the reduction in consumed power as recited in claim 1.

We point out that to the extent Patent Owner contends that the measurement and verification limitation requires a specific order, i.e., to be performed after or before any other recited functions, the claim language has not been shown to be so limited. Nor has either party shown that the claim precludes utilizing forecasted or calculated amounts to be used for curtailment and comparing those to measured amounts of actual usage as a form of measurement and verification. We fail to see how the claims are restricted to measuring and verifying only actual power that has or has not been consumed during a curtailment period. The specification of the '268 patent broadly describes embodiments of the measurement and verification by disclosing a power supply value (PSV) that is calculated (according to methods determined by the appropriate governing body or authority for the electric power grid) and provided in units of power flow, monetary equivalents, and combinations thereof. Ex. 1001, 7:28–63.

a) Conclusion as to Claim 1

Having reviewed the Petition, Patent Owner's arguments, and the evidence of record, we determine that Petitioner has shown a reasonable

likelihood of prevailing on its contention that claim 1 of the '268 patent would have been obvious over Ehlers.

2. Independent Claim 14

Independent claim 14 recites substantively similar limitations to those recited in claim 1. Petitioner addresses the relevant differences in the mappings identified in the Petition. Pet. 41–46. Patent Owner's argument discussed above with regard to the "measurement and verification" limitation equally applies to this claim. Thus, we rely on our discussion above and reach the same conclusion here.

Based on the arguments and evidence presented at this juncture, we determine that Petitioner has shown a reasonable likelihood of prevailing on its contention that claim 14 of the '268 patent would have been obvious over Ehlers.

3. Dependent Claims 2–11, 13, and 15–19

With respect to dependent claims 2–11, 13, and 15–19, each of which depends directly or indirectly from either of independent claims 1 and 14, Petitioner contends these claims are also rendered obvious by Ehlers, and provides arguments explaining how the reference teaches their limitations. Pet. 24–41, 46–52. Patent Owner does not present argument regarding these claims.

As we preliminarily conclude that Petitioner demonstrates a reasonable likelihood of prevailing with respect to its obviousness challenge to independent claims 1 and 14, we institute review on all challenged claims on all grounds set forth in the Petition, including Petitioner's challenge to dependent claims 2–11, 13, and 15–19 on all asserted grounds. *See*

37 C.F.R. § 42.108(a); *SAS Institute Inc. v. Iancu*, 138 S. Ct. 1348, 1354 (2018); *PGS Geophysical AS v. Iancu*, 891 F.3d 1354, 1360 (Fed. Cir. 2018).

IV. CONCLUSION

As explained above, we have determined that Petitioner demonstrates a reasonable likelihood of prevailing on its challenge of claims 1 and 14 as unpatentable for obviousness over Ehlers. Therefore, we institute review on all challenged claims and grounds as asserted in the Petition. *See* 37 C.F.R. § 42.108(a); *SAS Inst.*, 138 S. Ct. at 1359–60. Accordingly, we institute trial on all challenged grounds and all claims as asserted (listed below).

Claim(s) Challenged	35 U.S.C. §	Reference/Basis
1–11, 13–19	103(a)	Ehlers
1–11, 13–19	103(a)	Ehlers, Chen

Our determinations in this Decision do not constitute a final determination on the patentability of any challenged claims and, thus, do not address whether sufficient evidence would support Petitioner's contentions by a *preponderance of the evidence* in a final written decision. *See TriVascular, Inc. v. Samuels*, 812 F.3d 1056, 1068 (Fed. Cir. 2016) (noting that "there is a significant difference between a petitioner's burden to establish a 'reasonable likelihood of success' at institution, and actually proving invalidity by a preponderance of the evidence at trial") (quoting 35 U.S.C. § 314(a) and comparing § 316(e)).

V. ORDER

In consideration of the foregoing, it is hereby

ORDERED that, pursuant to 35 U.S.C. § 314(a), an *inter partes* review of claims 1–11 and 13–19 of the '268 patent is instituted with respect to all grounds set forth in the Petition; and

FURTHER ORDERED that, pursuant to 35 U.S.C. § 314(c) and 37 C.F.R. § 42.4(b), *inter partes* review of the '268 patent shall commence on the entry date of this Order, and notice is hereby given of the institution of a trial.

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