

NOTE: This disposition is nonprecedential.

# United States Court of Appeals for the Federal Circuit

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IN RE: ECOFACTOR, INC.,  
*Appellant*

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2024-2081

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Appeal from the United States Patent and Trademark  
Office, Patent Trial and Appeal Board in No. 90/014,916.

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Decided: January 21, 2026

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MATTHEW AICHELE, Russ August & Kabat, Washington, DC, argued for appellant. Also represented by KRISTOPHER DAVIS, REZA MIRZAIE, JAMES PICKENS, Los Angeles, CA.

FAHD H. PATEL, Office of the Solicitor, United States Patent and Trademark Office, Alexandria, VA, argued for appellee John A. Squires. Also represented by MAUREEN DONOVAN QUELER.

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Before MOORE, *Chief Judge*, STARK, *Circuit Judge*, and  
OETKEN, *District Judge*.<sup>1</sup>

OETKEN, *District Judge*.

EcoFactor, Inc. (“EcoFactor”) appeals from the decision of the Patent Trial and Appeal Board (the “Board” or “PTAB”) sustaining the Examiner’s rejection in an ex parte reexamination of claims 1 through 16 of U.S. Patent No. 8,412,488 (the “488 Patent”). We *affirm*.

## I

The ’488 Patent, filed on March 1, 2012,<sup>2</sup> discloses an invention that “pertains to [the] use of communicating thermostat combined with a computer network to verify that demand reduction has occurred.” J.A. 33. The ’488 Patent relates to monitoring and controlling a heating, ventilation, and air conditioning (“HVAC”) system to determine whether the HVAC system is “on” or “off.” *Id.* at 34-36.

The ’488 Patent asserts sixteen claims. Representative claim 1 reads as follows:

A system for monitoring the operational status of  
an HVAC system comprising:

at least one HVAC control system associated with  
a first structure that receives temperature measure-  
ments from at least a first structure conditioned by at  
least one HVAC system;

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<sup>1</sup> Honorable J. Paul Oetken, District Judge, United States District Court for the Southern District of New York, sitting by designation.

<sup>2</sup> Because the ’488 Patent was filed on March 1, 2012, it is subject to patent laws in effect before the America Invents Act. Leahy-Smith America Invents Act (“AIA”), Pub. L. No. 112-29, 125 Stat. 284 (2011).

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one or more processors that receive measurements of outside temperatures from at least one source other than said HVAC system,

wherein said one or more processors compares the inside temperature of said first structure and the outside temperature over time to derive an estimation for the rate of change in inside temperature of said first structure in response to outside temperature, and

wherein said one or more processors compare an inside temperature recorded inside the first structure with said estimation for the rate of change in inside temperature of said first structure to determine whether the first HVAC system is on or off.

*Id.* at 37.

In 2021, Andrew S. Baluch on behalf of Google filed for *ex parte* reexamination of the '488 Patent. The Patent and Trademark Office (the "PTO") granted the reexamination request. In a Non-Final Office Action, the Examiner rejected claims 1, 3 through 9, and 11 through 16 under pre-AIA 35 U.S.C. § 103(a) as unpatentable over the combination of two other patents—Patent No. 2004/0117330 to Ehlers et al. ("Ehlers") and Patent No. 2005/0159846 to Van Ostrand et al. ("Van Ostrand"). J.A. 669-78. The Examiner also rejected claims 2 and 10 under pre-AIA 35 U.S.C. § 103(a) as unpatentable over Ehlers, Van Ostrand, and a third patent—Patent No. 6,789,739 to Rosen ("Rosen"). *Id.* at 677-78.

In response, EcoFactor amended its two independent claims, claims 1 and 9. J.A. 683-700. Whereas as-issued claim 1 "compare[d] [i] *an inside temperature* recorded inside the first structure with [ii] said estimation for the rate of change in inside temperature," J.A. 37 (emphasis added), amended claim 1 "compare[d] [i] *an actual rate of change in* inside temperature recorded inside the first structure with [ii] said estimation for the rate of change in inside

temperature,” *id.* at 684 (emphasis in original). Claim 9 was similarly amended. *Id.* at 685.

The Examiner issued a Final Office Action, which rejected all sixteen claims on the basis that EcoFactor’s amendments to claims 1 and 9 impermissibly enlarged the scope of the claims. J.A. 707-08. The Final Office Action also sustained the Non-Final Office Action’s rejection of all claims under pre-AIA 35 U.S.C. § 103(a). *Id.* at 708-15. EcoFactor then filed a Notice of Appeal to the Board.

The Board sustained the Examiner’s rejection of all claims. The Board held that EcoFactor’s amendments to the two independent claims, claims 1 and 9, impermissibly enlarged the scope of the claims being reexamined. J.A. 6. The Board also sustained the rejection of claims 1 and 9 under pre-AIA 35 U.S.C. § 103(a) because (1) the combination of prior art, specifically the Ehlers and Van Ostrand patents, teaches claims 1 and 9, including, as relevant here, the “Comparing Rates of Change” limitation and (2) such combination is obvious. *Id.* at 9-15. The Board ruled similarly on claims 3 through 8 and 11 through 16. *Id.* at 18. The Board further concluded that EcoFactor failed to raise any arguments with respect to the rejection of claims 2 and 10 under § 103(a) and thus forfeited any challenges. *Id.* at 6 n.2.

EcoFactor timely appealed from the Board’s final written decision. The Board had jurisdiction pursuant to 35 U.S.C. § 134(b) and 35 U.S.C. § 306 and we have jurisdiction over this appeal under 28 U.S.C. § 1295(a)(4)(A).

## II

“We review the Board’s legal conclusions *de novo*, and the Board’s factual findings underlying those determinations for substantial evidence.” *In re Giannelli*, 739 F.3d 1375, 1378–79 (Fed. Cir. 2014) (citations omitted). “Whether amendments made during reexamination enlarge the scope of a claim is a matter of claim construction,

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which this court reviews de novo.” *Creo Prods., Inc. v. Presstek, Inc.*, 305 F.3d 1337, 1344 (Fed. Cir. 2002).

### III

The Board provided two independent grounds for sustaining the Examiner’s rejections of EcoFactor’s claims: improper enlargement and obviousness. To prevail, EcoFactor would need to succeed on its challenges to both grounds. We need not reach obviousness because we conclude that the Board properly sustained the Examiner’s rejections of EcoFactor’s claims for improper enlargement.

“In any reexamination proceeding . . . , the patent owner will be permitted to propose any amendment to his patent and a new claim or claims thereto, in order to distinguish the invention as claimed from the prior art . . . , or in response to a decision adverse to the patentability of a claim of a patent.” 35 U.S.C. § 305. However, “[a] patentee is not permitted to enlarge the scope of a patent claim during reexamination.” *Creo Prods., Inc.*, 305 F.3d at 1344 (citing 35 U.S.C. § 305). “Claims that are impermissibly broadened during reexamination are invalid[.]” *Predicate Logic, Inc. v. Distributive Software, Inc.*, 544 F.3d 1298, 1302 (Fed. Cir. 2008).

To determine if an amendment enlarges the scope of a patent claim, courts “must analyze the scope of the claim prior to reexamination and compare it with the scope of the claim subsequent to reexamination.” *Creo Prods., Inc.*, 305 F.3d at 1344. “An amended or new claim has been enlarged if it includes within its scope any subject matter that would not have infringed the original patent.” *Quantum Corp. v. Rodime, PLC*, 65 F.3d 1577, 1580 (Fed. Cir. 1995). “[T]he words of a claim will be given their ordinary meaning to one of skill in the art unless the inventor appeared to use them differently.” *Id.*

The Board correctly rejected EcoFactor’s amended claims for enlargement. During reexamination, EcoFactor

amended the last limitation of independent claims 1 and 9. Because the other claims are dependent on claims 1 and 9, all claims rise and fall with these amendments. Representative claim 1 was amended as reproduced below, with the underlined language having been added to the claim during reexamination:

“[W]herein said one or more processors compare an actual rate of change in inside temperature recorded inside the first structure with said estimation for the rate of change in inside temperature of said first structure to determine whether the first HVAC system is on or off.”

J.A. 684.

The text of the amendment enlarges the scope of the claim. The original limitation required comparing (i) inside temperature at a point in time with (ii) the estimated rate of change in temperature. In contrast, the as-amended limitation requires comparing (i) the actual rate of change in inside temperature with (ii) the estimated rate of change. In other words, the original limitation required comparing a temperature value with an estimated rate of change in temperature over time, whereas the as-amended limitation requires comparing an actual rate of change in temperature over time with the estimated rate of change in temperature over that same time. Thus, a system comparing an actual rate of change would not have infringed the original patent, but it would infringe the amended patent.

EcoFactor argues against this conclusion on the basis that an actual rate of change in inside temperature is necessarily calculated using the inside temperature values implicated in the original limitation. EcoFactor is correct that calculating an actual rate of change entails using actual temperature values. But that has little bearing on enlargement. As the Board explained, “comparing one or more *temperatures* to a rate of change is not equivalent to

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comparing *a rate of change* to a rate of change.” J.A. 8. A system that infringes the as-amended claim must measure the inside temperature at multiple points in time, but the relevant question for purposes of claim construction is what that system *compares* with the estimated rate of change to determine whether the HVAC system is on or off. The as-amended claim compares a different value to the estimated rate of change than the as-issued claim. Because the as-amended claim is broader in at least this one respect, EcoFactor expanded the scope of its claims during reexamination in violation of 35 U.S.C. § 305. *See Tillotson, Ltd. v. Walbro Corp.*, 831 F.2d 1033, 1037 n.2 (Fed. Cir. 1987) (“A reissue claim that is broader in any respect is considered to be broader than the original claims even though it may be narrower in other respects.”). “To conclude otherwise would force us to alter what [EcoFactor] chose to claim as its invention in the original . . . patent.” *Quantum Corp.*, 65 F.3d at 1581.

#### IV

We have considered EcoFactor’s remaining arguments and find them unpersuasive. Accordingly, for the foregoing reasons, we *affirm* the judgment of the Board.

**AFFIRMED**