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UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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*Ex parte* PIERA JORDI CARULLA

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Appeal 2019-003402  
Application 15/302,284  
Technology Center 2800

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Before BRIAN D. RANGE, MERRELL C. CASHION, JR., and  
JANE E. INGLESE, *Administrative Patent Judges*.

CASHION, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF CASE

Pursuant to 35 U.S.C. § 134(a), Appellant<sup>1</sup> appeals from the Examiner's decision to reject claims 1, 3–7, 11–15, and 18.<sup>2</sup> We have jurisdiction under 35 U.S.C. § 6(b).

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<sup>1</sup> We use the word “Appellant” to refer to “applicant” as defined in 37 C.F.R. § 1.42. Appellant identifies the real party in interest as GE Renewable Technologies Wind B.V., which is a wholly owned subsidiary of General Electric Company. Appeal Br. 2.

<sup>2</sup> Claims 2, 8–10, 16, 17, 19, and 20 are objected to as depending upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Final Act. 5.

We reverse.

The invention relates to methods of operating a set of wind turbines and to systems suitable for performing such methods. Spec. ¶ 2. The invention addresses situations where structures and components of wind farm turbines undergo undesired movements during their operation that may cause fatigue damage to the turbine after a prolonged period of time. *Id.* ¶¶ 4–6. The Specification describes these situations as operating within an exclusion range, which is defined as “a range of active power production (and corresponding translation into rotor speed) a wind turbine should ideally avoid or (if that is not possible) remain within this range a reduced time, in order to minimize the risk of the wind turbine undergoing undesired problematic movements (e.g. oscillations).” *Id.* ¶¶ 12, 17. The invention addresses these situations by controlling a number of sub-sets of a set of wind turbines of a wind farm by using first, second, and third individual set points to restore the wind farm to a status where the set of wind turbines generates the total active power demand. *Id.* ¶¶ 10–13. The Specification discloses that the second and third individual set points for some wind turbines are generated when the maximum period is reached by any of the wind turbines of the selection of wind turbines operating under undesired situations (within an individual exclusion range for operation). *Id.* ¶ 12.

Claim 1 illustrates the invention:

1. A method of operating a set of wind turbines for generating and providing a total active power demand to a grid according to a grid requirement, wherein a first group of wind turbines of the set of wind turbines is configured to generate an individual active power based on an individual set-point, the method comprising:

obtaining one or more individual exclusion ranges for the first group of wind turbines;

generating first individual set-points for the first group of wind turbines such that the set of wind turbines generates the total active power;

determining whether a selection of the first group of wind turbines are operating within an individual exclusion range; and

in case of positive result of said determination, limiting the operation of the selection of wind turbines within exclusion range to a maximum period, and when the maximum period is reached by any of the wind turbines of the selection of wind turbines:

generating second individual set-points for the wind turbines of the selection of wind turbines that have reached the predefined maximum period, to cause these wind turbines to operate outside the exclusion range; and

generating third individual set-points for one or more other wind turbines of the first group of wind turbines to cause the set of wind turbines to generate the demanded total active power.

Appellant requests review of the Examiner's rejection of claims 1, 3–7, 11–15, and 18 under 35 U.S.C. § 102(a)(1) as anticipated by Jakobsson (EP 2 232 667 B1, published January 23, 2013). *See generally* Appeal Br.; Final Act. 2.

### OPINION<sup>3</sup>

After review of the respective positions provided by Appellant and the Examiner, we reverse the Examiner's prior art rejection of claims 1, 3–7,

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<sup>3</sup> We limit discussion to independent claim 1 and dependent claim 15.

11–15, and 18 under 35 U.S.C. § 102(a)(1) essentially for the reasons Appellant presents in the Appeal and Reply Briefs. We add the following for emphasis.

*Independent claim 1*

Claim 1 recites (1) generating second individual set-points for selected wind turbines that have been operating within the exclusion range for a predefined maximum period to cause these wind turbines to operate outside the exclusion range and (2) generating third individual set-points for one or more other wind turbines of the first group of wind turbines to cause the set of wind turbines to generate the demanded total active power.

We refer to the Examiner’s Final Action for a complete statement of the rejection of claim 1. Final Act. 2–3.

Briefly, the Examiner finds that Jakobsson describes generating the second and third individual set points. Final Act. 3; Jakobsson ¶¶ 98, 103. In the Answer, the Examiner explains that, while “the present invention ‘may’ operate with different rpms,” “it is still possible to meet the conditions of the [claimed] second and third set points with the same rpm.” Ans. 3. The Examiner contends that Jakobsson teaches the conditions for the second set point in step 5 of paragraph 98 and the third set point in paragraphs 81–83. *Id.* at 4. The Examiner asserts that Jakobsson would still meet the conditions for these individual set points while operating at the same rpm to meet the demand on the grid. *Id.*

Appellant argues that Jakobsson does not teach that the wind turbines on the local wind farm grid 6 can be operated with different set points concurrently or simultaneously as required by the subject matter of claim 1. Appeal Br. 6–7; Reply Br. 2. Appellant contends that the Examiner’s

reliance on Jakobsson's paragraphs 81–83 is misguided because the noted portions of “Jakobsson disclose a way to determine how much [power] the wind turbine could produce at a change in the collective rpm” and “have nothing to do with the notion that the wind turbines on the local wind farm grid 6 can be operated with different set-points concurrently or simultaneously so that the wind turbines on the wind farm grid 6 generate the demanded total active power.” Reply Br. 2–3.

We agree with Appellant that there is reversible error in the Examiner's finding of anticipation. For the Examiner to carry the burden of establishing a prima facie case of anticipation, the Examiner must establish where each and every element of the claimed invention, arranged as required by the claim, is found in a single prior art reference, either expressly or under the principles of inherency. *See generally In re Schreiber*, 128 F.3d 1473, 1477 (Fed. Cir. 1997).

The Examiner cited to Jakobsson's paragraphs 81–83 as describing the concurrent generation of the second and third individual set points for different groups of wind turbines in a wind farm. Ans. 3–4. As Appellant argues, the Examiner's explanation in the Answer does not address adequately Appellant's argument that Jakobsson does not teach the concurrent generation of second and third individual set points as required by the subject matter of claim 1. Appeal Br. 6–7; Reply Br. 2. While the Examiner contends that the claim language does not require the different individual set points have to be at different rpms (*id.* at. 4), the Examiner directs us to no portion of Jakobsson that describes concurrently generating second and third individual set points for different groups of wind turbines as claim 1 recites. Nor does the Examiner provide any adequate explanation

of why such concurrent generation of these set points would be inherent in Jakobsson's disclosure. Moreover, the Examiner's analysis that "it is still possible to meet the conditions of the [claimed] second and third set points with the same rpm" (see Ans. 3–4) is more appropriate for an obviousness rejection under 35 U.S.C. § 103. However, obviousness is not before us, and we decline to address obviousness in the first instance on appeal.

*Dependent Claim 15*

We address dependent claim 15 separately because it is directed to a system comprising a control unit configured to perform the method according to claim 1.

The Examiner contends that Jakobsson discloses a control unit configured to perform the method according to claim 1. Final Act. 5; Jakobsson Figure 3.

The "configured to" language requires that the prior art structure be capable of performing the function without further programming. *Typhoon Touch Techs., Inc. v. Dell, Inc.*, 659 F.3d 1376, 1380 (Fed. Cir. 2011) (discussing *Microprocessor Enhancement Corp. v. Texas Instruments, Inc.*, 520 F.3d 1367 (Fed. Cir. 2008)). When the functional language is associated with programming or some other structure required to perform the function, that programming or structure must be present in order to meet the claim limitation. *Id.*

Given our determination that Jakobsson does not anticipate the subject matter of claim 1, and absent the necessary analysis to establish that Jakobsson's system is inherently capable of performing the claimed function of concurrently generating second and third individual set points as claim 1

recites, we also find reversible error in the Examiner's finding of anticipation for this claim.

Accordingly, we reverse the Examiner's prior art rejection of claims 1, 3-7, 11-15, and 18 under 35 U.S.C. § 102(a)(1) for the reasons Appellant presents and we give above.

### CONCLUSION

In summary:

<b>Claims Rejected</b>	<b>35 U.S.C. §</b>	<b>Reference(s)/Basis</b>	<b>Affirmed</b>	<b>Reversed</b>
1, 3-7, 11-15, 18	102(a)(1)	Jakobsson		1, 3-7, 11-15, 18

REVERSED