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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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*Ex parte* MARTIN GREINER, CLEMENS HOFFMANN, and  
CLAUS KERN

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Appeal 2014-002072<sup>1</sup>  
Application 12/679,156  
Technology Center 3600

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Before: MURRIEL E. CRAWFORD, JOSEPH A. FISCHETTI, and  
MICHAEL W. KIM, *Administrative Patent Judges*.

KIM, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF CASE

This is an appeal from the Final rejection of claims 26–33 and 35–53.  
We have jurisdiction to review the case under 35 U.S.C. §§ 134 and 6.

The invention relates generally to a decentralized energy network.  
Spec. 1, ll. 6–8.

Claim 26 is illustrative:

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<sup>1</sup> Appellants identify Siemens Aktiengesellschaft as the real party in interest. Br. 1.

26. A decentralized energy network, comprising:  
a plurality of energy consumption units and/or energy generation units;  
a plurality of agents, with at least one of said plurality of agents assigned to each said energy consumption and/or energy generation unit;  
said plurality of agents being networked together in such a way to enable each one of said plurality of agents to communicate with other said agents in the energy network; and  
a local energy exchange unit through which said plurality of agents negotiate monetary transactions during an operation of the energy network, and  
wherein a distribution of energy in the energy network is based at least partly on the monetary transactions negotiated between said agents.

Claims 26–33 and 35–53 are rejected under 35 U.S.C. § 112, second paragraph, as indefinite.

Claims 26–33 and 35–53 are rejected under 35 U.S.C. § 101 as reciting unpatentable subject matter.

Claims 26–31, 35–40, 43–45, 49, 51, and 52 are rejected under 35 U.S.C. § 103(a) as unpatentable over Maturana (US 2005/0034023 A1, pub. Feb. 10, 2005) and Malme (US 2002/0019802 A1, pub. Feb. 14, 2002).

Claim 32 is rejected under 35 U.S.C. § 103(a) as unpatentable over Maturana, Malme, and Winter (US 2006/0265323 A1, pub. Nov. 23, 2006).

Claim 33 is rejected under 35 U.S.C. § 103(a) as unpatentable over Maturana, Malme, and Troxell (US 2007/0124026 A1, pub. May 31, 2007).

Claim 41 is rejected under 35 U.S.C. § 103(a) as unpatentable over Maturana, Malme, and Felt (US 2002/0138735 A1, pub. Sept. 26, 2002).

Claim 42 is rejected under 35 U.S.C. § 103(a) as unpatentable over Maturana, Malme, and Booth (US 2003/0063723 A1, pub. Apr. 3, 2003).

Claim 46 is rejected under 35 U.S.C. § 103(a) as unpatentable over Maturana, Malme, and Abdelaziz (US 2012/0079368 A1, pub. Mar. 29, 2012).

Claim 47 is rejected under 35 U.S.C. § 103(a) as unpatentable over Maturana, Malme, and Foster (US 2005/0004858 A1, pub. Jan. 6, 2005).

Claim 48 is rejected under 35 U.S.C. § 103(a) as unpatentable over Maturana, Malme, Foster, and Ristanovic (US 7,343,360 B1, iss. Mar. 11, 2008).

Claim 50 is rejected under 35 U.S.C. § 103(a) as unpatentable over Maturana, Malme, and Smith (US 6,785,592 B1, iss. Aug. 31, 2004).

We AFFIRM.

#### ANALYSIS

##### Rejection under 35 U.S.C. § 112, Second Paragraph

We are persuaded by Appellants' arguments that the claim language is not indefinite, based on, among other things, descriptions in the Specification. Br. 3–5.

The Examiner asserts that the term “energy network” is indefinite because it is “so broad.” Final Act. 7. We disagree. The test for definiteness under 35 U.S.C. § 112, second paragraph, is whether “those skilled in the art would understand what is claimed when the claim is read in light of the [S]pecification.” *Orthokinetics, Inc. v. Safety Travel Chairs, Inc.*, 806 F.2d 1565, 1576 (Fed. Cir. 1986). By the Examiner's own admission (Final Act. 7), the Examiner's concerns are a matter of claim breadth, not indefiniteness. “Breadth is not indefiniteness.” *In re Gardner*,

427 F.2d 786, 788 (1970). Additionally, the term is part of the preamble, and the body of the claim defines the bounds of the energy network.

In the same vein, the Examiner asserts that the term “plurality of agents” is indefinite because it could encompass humans, software, or hardware. Final Act. 8. Once again, however, a broad claim term such as “agent” does not render a claim indefinite if the ordinary artisan would understand the meaning. Here, “agents” is construed according to the ordinary and customary meaning of “one who is authorized to act for or in the place of another.” *See* Merriam-Webster Online Dictionary, last retrieved on June 20, 2016 at <http://www.merriam-webster.com/dictionary/agent>. The “another” in the claims and Specification is the energy generation and consumption units.

The Examiner also asserts that the claim terms “energy consumption units” and “energy generation units” are indefinite because, according to the Examiner, it is unclear whether the terms are “output power of engines and/or electric power motors production,” a “unit of measurement,” or “software per se.” Final Act. 7–8. We disagree that those claim terms are directed to any of them. The Specification describes examples of “energy generation units” to include “photovoltaic plants, wind turbines, Sterling engines and so-called CHP plants (CHP = Combined Heat and Power),” and “energy consumption units” as “private households, commercial consumers (such as office buildings, public baths, etc.), and industrial consumers.” Spec. 8, ll. 10–17. None of these are “output power of engines and/or electric power motors production,” a “unit of measurement,” or “software per se.” Indeed, we discern that the ordinary and customary meaning of these terms are things that generate or consume energy, respectively,

because a “unit” is “a single thing, person, or group that is a part of something larger” (see Merriam-Webster Online Dictionary, last retrieved on June 20, 2016 at <http://www.merriam-webster.com/dictionary/unit>). An “energy generation unit” is, thus, a thing that generates energy. This is consistent with the examples provided in the Specification. See Spec. 8, ll. 10–17.

In light of the aforementioned express construction and descriptions in the Specification, we determine that the ordinary artisan in the energy generation and distribution field would not consider energy generating or consumption units to be “units of measurement.” Indeed, we note that the Examiner has not set forth adequate evidence or analysis in support of the asserted “unit of measurement” interpretation. Also, software *per se*, as abstract statements of logic, cannot generate or consume energy, as set forth in the Specification, so we do not construe the units as encompassing software *per se*. There further is inadequate analysis and evidence to limit the recited energy generation and consumption to engines and electric motors.

The Examiner asserts that there is no antecedent basis for the term “said agents,” and asserts that it should be changed to match the previously-recited “plurality of agents.” Final Act. 2. We determine, however, that one of ordinary skill would understand that “plurality of agents” is a sufficient antecedent basis for any further reference to any “agents,” because “plurality of” indicates more than one.

The Examiner next indicates confusion over which statutory category of invention is claimed, but settles on “apparatus.” Final Act. 9. Appellants do not object to this finding, and neither do we because, for example, our

above construction of “energy consumption units” and “energy generation units” indicate that the recited “energy network” is made up of physical components. *Id.* at 2. Thus, we determine that independent claim 26, and its dependent claims, are directed to an apparatus and, thus, the rejection on this basis is moot.

The Examiner asserts further that there is no antecedent basis for the introduction of “a monitoring unit” in claim 39 (Final Act. 14). The term, however, appears to be properly introduced in that claim with the article “a,” and so we are unclear as to the basis for the assertion that there is no antecedent basis.

The Examiner asserts that there is no antecedent basis for the term “group” in claim 40 (*Id.*), which recites “selected from the group consisting of.” This is, however, a proper, commonly-accepted claim format for a Markush group, so there is no antecedent basis problem. *See* MPEP § 2173.05(H) (“A Markush claim is commonly formatted as: “selected from the group consisting of A, B, and C.”).

The Examiner asserts that there is no antecedent basis for “said unit” in claim 43. (Final Act. 15). We determine, however, that one of ordinary skill would understand that the term refers to the management unit that is the subject of the claim.

The Examiner asserts that there is no antecedent basis for the term “the energy distribution” in claim 47. Final Act. 16. We determine, however, that one of ordinary skill would understand that the term refers to “distribution of energy” in claim 26.

The Examiner asserts that there is an omitted “achieving a negotiated agreement” step in independent claim 53. Final Act. 19. The step appears to

be recited as “said plurality of agents negotiate monetary transactions during an operation of the energy network,” which is part of the embedded language drawn from independent claim 26.

The remainder of the Examiner’s rejections (Final Act. 9–19) merely repeat the same issues of claim breadth and antecedent basis, and are found incorrect for the same reasons set forth above.

For these reasons, we do not sustain the rejection of claims 26–33 and 35–53 as indefinite.

*Rejection under 35 U.S.C. § 101*

We are persuaded by Appellants’ argument that the claims are not directed to unpatentable subject matter. Br. 3–5. Principally, the Examiner asserts that the claims are non-statutory because they encompass humans and software *per se*.

As an initial matter, however, in disagreement with Appellants, we find no definition or description in the Specification limiting the term “agent” to exclude humans or software from within the scope of “agent.” Even if the claimed agents in the system of claim 26 were human or software, however, this does not indicate that the claimed network would be claiming only a human, or only software *per se*, as insinuated by the Examiner, because other elements of the network, such as energy generating/consuming units, are also present. The Examiner has not asserted, for example, that energy generating and consuming units are also humans, such that nothing but human beings are being claimed. *See* Final Act. 19–20. Plus, we determined above that the recited energy generating

and consumption units are not software *per se*, which indicates that the claim also does not exclusively claim software *per se*.

The Examiner, thus, has not set forth adequately that the scope of the claimed network could encompass only humans and/or entirely software *per se*, which arguably would not be directed to statutory subject matter. Instead, the analysis merely asserts that humans or software could be elements in the network. *See* Final Act. 19–28. This alone, however, does not indicate the claim recites unpatentable subject matter, as claims regularly include human activity and/or software components.

As to claim 53, the Examiner advances the idea that the independent method claim is merely an abstract idea (though no such abstract idea is identified), merely applies a law of nature (though no law is identified), is merely software, and ambiguously combines a method with a network. Final Act. 19–28. The analysis merely sets out conclusory assertions, but does not establish a *prima facie* case that the claimed method is an abstract idea or application of a law of nature. *See Alice Corp. Pty. Ltd. v CLS Bank Intl.*, 134 S. Ct. 2347, 2355 (2014) (citing *Mayo Collaborative Services v. Prometheus Laboratories, Inc.*, 132 S. Ct. 1289 (2012)). In addition, the claim clearly recites that it is a method that provides a network. This does not render the class of invention as ambiguous, because it is a method.

For these reasons, we do not sustain the rejection of claims 26–33 and 35–53 under 35 U.S.C. § 101.

Rejection under 35 U.S.C. § 103(a)

Appellants argue all claim rejected under 35 U.S.C. § 103(a) as a group (Br. 5–8), so we select claim 26 as representative. *See* 37 C.F.R. § 41.37(c)(1)(vii).

We are not persuaded by Appellants’ argument that Maturana fails to disclose a local energy exchange unit. Br. 5–6; *see also* Br. 7–8. The Examiner does not rely on Maturana for this feature, but instead relies on Malme. Final Act. 30.

We are not persuaded by Appellants’ argument that “[n]othing in Malme fairly points to anything that could be read on a ‘local energy exchange unit,’ as claimed.” Br. 6–7.

A “local energy exchange unit” is described in Appellants’ Specification, and explains that agents can “access” the unit (Spec. 9, ll. 1–3), and that the unit “represents a switching unit for supply and demand of the individual [agents] which buy or sell energy in exchange for money.” Spec. 9, ll. 16–19. Malme discloses computer servers (Malme, para. 46) where producers and consumers bid and contract for energy (Malme, paras. 33, 36, 39), and, thus, corresponds properly to a switching unit for supply and demand-driven purchases and sales of energy between agents, as claimed.

We are also not persuaded by Appellants’ argument that the Examiner has not set forth a reason to substitute Maturana’s “distributed” exchange with Malme’s “local” exchange. Br. 7. The Federal Circuit has stated that “rejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.” *In re*

*Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006), *cited with approval in KSR*, 550 U.S. at 418. Here, the Examiner set forth articulated reasoning with rational underpinning, asserting the following: “Both Maturana and Malme are directed toward buying and selling energy with [an] energy exchange. Malme teaches the motivation of presenting a means for local surplus energy to be sold. It would have been obvious to one of ordinary skill in the art at the time of the invention to apply a known technique to a known device to yield predictable results as Malme teaches the motivation of presenting a means for local surplus energy to be sold.” Final Act. 30–31. We are unpersuaded of error in that rationale for modification. The combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results. *KSR* 550 U.S. at 416. The Court further stated that if a technique has been used to improve one device, and a person of ordinary skill in the art would recognize that it would improve similar devices in the same way, using the technique is obvious unless its actual application is beyond his or her skill. *KSR*, 550 U.S. at 417.

For these reasons, we sustain the rejection of claims 26–33 and 35–53 under 35 U.S.C. § 103(a).

#### DECISION

We REVERSE the rejection of claims 26–33 and 35–53 under 35 U.S.C. § 112, second paragraph.

We REVERSE the rejection of claims 26–33 and 35–53 under 35 U.S.C. § 101.

We AFFIRM the rejection of claims 26–33 and 35–53 under 35 U.S.C. § 103(a).

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No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED