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Paper 31
Date: August 22, 2022

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

HALLIBURTON ENERGY SERVICES, INC.,
Petitioner,

v.

U.S. WELL SERVICES, LLC,
Patent Owner.

IPR2021-01238
Patent 10,526,882 B2

Before LYNNE H. BROWNE, GEORGE R. HOSKINS, and SEAN P. O'HANLON, *Administrative Patent Judges*.

O'HANLON, *Administrative Patent Judge*.

PRELIMINARY GUIDANCE
PATENT OWNER'S MOTION TO AMEND

I. INTRODUCTION

On February 16, 2022, we instituted trial as to claims 1–14 ("the challenged claims") of U.S. Patent No. 10,526,882 B2 (Ex. 1001, "the '882 patent"). Paper 9. After institution, Patent Owner, U.S. Well Services, LLC, filed a Contingent Motion to Amend. Paper 23 ("Motion" or "Mot.").[1,2] In the Motion, Patent Owner requests that we grant its motion to amend the '882 patent to substitute proposed claims 15–28 for original claims 1–14. Mot. 1. Patent Owner submitted a declaration of William D. Marscher, P.E., in support of the Motion. Ex. 2015. Petitioner, Halliburton Energy Services, Inc., filed an Opposition to the Motion. Paper 30 ("Opposition" or "Opp."). Petitioner submitted a Second Declaration of Robert A. Durham, Ph.D., in support of the Opposition. Ex. 1037.

In the Motion, Patent Owner requested that we provide preliminary guidance concerning the Motion in accordance with the Board's pilot program concerning motion to amend practice and procedures. Mot. 1; *see also* Notice Regarding a New Pilot Program Concerning Motion to Amend Practice and Procedures in Trial Proceedings under the America Invents Act before the Patent Trial and Appeal Board, 84 Fed. Reg. 9,497 (Mar. 15, 2019) (providing a patent owner with the option to receive preliminary

[1] The title of the Motion indicates the Motion is contingent. *See* Mot., Title. Additional references to its "contingent" nature are on pages 1 and 12 of the Motion. *See id.* at 1, 12. We additionally note that Patent Owner filed a Response. Paper 22. We therefore consider the Motion to be contingent and treat the contradictory references to non-contingency (*see* Mot. 2, Claims App. A (page 1)) to be obvious clerical or typographical mistakes.

[2] Paper 23 is Patent Owner's corrected Motion to Amend, which corrects and replaces an earlier filed motion (Paper 17). *See* Paper 21.

guidance from the Board on its motion to amend) ("Notice"). We have considered Patent Owner's Motion and Petitioner's Opposition.

In this Preliminary Guidance, we provide information indicating our initial, preliminary, non-binding views on whether Patent Owner has shown a reasonable likelihood that it has satisfied the statutory and regulatory requirements associated with filing a motion to amend in an *inter partes* review and whether Petitioner (or the record) establishes a reasonable likelihood that the substitute claims are unpatentable. *See* 35 U.S.C. § 316(d) (2018); 37 C.F.R. § 42.121 (2019); *Lectrosonics, Inc. v Zaxcom, Inc.*, IPR2018-01129, Paper 15 (PTAB Feb. 25, 2019) (designated precedential); *see also* Notice, 84 Fed. Reg. at 9,497 ("The preliminary guidance . . . provides preliminary, non-binding guidance from the Board to the parties about the [motion to amend].").

For purposes of this Preliminary Guidance, we focus on the proposed substitute claims, and specifically on the amendments proposed in the Motion. *See* Notice, 84 Fed. Reg. at 9,497. We do not address the patentability of the originally challenged claims. *Id.* Moreover, in formulating our preliminary views on the Motion and Opposition, we have not considered the parties' other substantive papers on the underlying merits of Petitioner's challenges. We emphasize that the views expressed in this Preliminary Guidance are subject to change upon consideration of the complete record, including any revision to the Motion filed by Patent Owner. Thus, this Preliminary Guidance is not binding on the Board when rendering a final written decision. *See id.* at 9,500.

II. PRELIMINARY GUIDANCE

A. Statutory and Regulatory Requirements

For the reasons discussed below, at this stage of the proceeding and based on the current record, it appears that Patent Owner has shown a reasonable likelihood that it has satisfied the statutory and regulatory requirements associated with filing a motion to amend.

1. Reasonable Number of Substitute Claims

Does Patent Owner propose a reasonable number of substitute claims? (35 U.S.C. § 316(d)(1)(B))
Yes. Patent Owner proposes no more than one substitute claim for each challenged claim. *See* Mot. 2, Claims App. A (proposing substitute claims 15–28). Petitioner does not argue otherwise. *See generally* Opp.

2. Respond to Ground of Unpatentability

Does the Motion respond to a ground of unpatentability involved in the trial? (37 C.F.R. § 42.121(a)(2)(i))
Yes. Patent Owner responds to the grounds of unpatentability on which we instituted trial. Mot. 3, 8–12. Upon review of Patent Owner's arguments, we agree that proposed substitute independent claims 15 and 22, and dependent claims 16–21 and 23–28, recite new limitations, and new combinations of limitations, that directly respond to the grounds of unpatentability involved in the trial. *See* Mot. 8–12, Claims App. A. Petitioner does not argue otherwise. *See generally* Opp.

3. Scope of Amended Claims

Does the amendment seek to enlarge the scope of the claims? (35 U.S.C. § 316(d)(3); 37 C.F.R. § 42.121(a)(2)(ii))
No. Proposed substitute independent claim 15 includes narrowing limitations compared to corresponding original independent claim 1, proposed substitute independent claim 22 includes narrowing limitations compared to corresponding original independent claim 8, and proposed substitute dependent claims 16–21 and 23–28 incorporate the narrowing limitations added to their respective proposed substitute independent claims. *See* Mot. 3–4, Claims App. A. Petitioner does not argue otherwise. *See generally* Opp.

4. New Matter

Does the amendment seek to add new subject matter? (35 U.S.C. § 316(d)(3); 37 C.F.R. § 42.121(a)(2)(ii))
No. On this record, Patent Owner appears to have identified adequate written description support for proposed substitute claims 15–28. Mot. 4–7.[3] Petitioner does not argue otherwise. *See generally* Opp. Thus, at this stage of the proceeding, on the record before us, Patent Owner has shown a reasonable likelihood that there is adequate written description support in the original disclosure of the '882 patent for proposed substitute claims 15–28.

[3] Patent Owner identifies an incorrect application as resulting in the '882 patent. *See* Mot. 4. However, Patent Owner's references appear to correspond to the correct application. *See id.* at 4–7.

B. Patentability

For the reasons discussed below, at this stage of the proceeding, and based on the current record,[4] it appears that Petitioner (or the record) has shown a reasonable likelihood that proposed substitute claims 15–28 are unpatentable.

Does the record establish a reasonable likelihood that the proposed substitute claims are unpatentable?
I. Indefiniteness **Yes**, as to proposed substitute claims 22–28. The phrase "readily moveable" recited in proposed substitute claim 22 appears to be indefinite under 35 U.S.C. § 112(b). Petitioner argues the phrase "readily moveable" is indefinite because > [there are no] boundaries between a transmission line that is "readily moveable" and one that is just "moveable." The term is "purely subjective" and depends "on the unpredictable vagaries of any one person's opinion," and is thus indefinite. *Intellectual Ventures I LLC v. T-Mobile USA, Inc.*, 902 F.3d 1372, 1381 (Fed. Cir. 2018) (quoting [*Datamize, LLC v. Plumtree Software, Inc.*, 417 F.3d 1342, 1350–1 (Fed. Cir. 2005)]. . . . > . . . . > . . . For example, there is no description of the time frame that the transmission line would need to be moved in in order to be "readily moveable." Further, there is no description of the equipment, tools, or accessories needed in order to make the transmission line "readily moveable." Nearly any structure is "moveable" given appropriate time, resources, and equipment, but without further information, a POSITA has no way of knowing the boundaries of what "readily moveable" is intended to represent. Thus, reasonable

[4] We express no view on the patentability of original claims 1–14 in this Preliminary Guidance. Instead, we focus on limitations added to those claims in Patent Owner's Motion to Amend.

> minds may have different views as to what is considered "moveable" or "readily moveable," and the term renders the claims indefinite. Ex. 1037 ¶42.
>
> . . . .
>
> The specification of the '882 Patent does not provide any "objective baseline" to enable a POSITA to differentiate "readily moveable" from plain "moveable." . . .
>
> . . . .
>
> . . . Thus, the intrinsic record provides no objective guideposts to a POSITA as to when a transmission line is or is not "readily" moveable.

Opp. 9–13 (citing Ex. 1001, 8:6–12, 8:19–21, Fig. 5; Ex. 1002 ¶¶ 45–54).

On this record, Petitioner has established a reasonable likelihood that the claim term "readily moveable . . . transmission line," recited in proposed substitute claim 22, renders the claim indefinite.

Our review of the '882 patent indicates that it describes an example of a hydraulic fracturing system, illustrated in Figure 5, in which "transmission section 14B provides electrical communication between power generation section 12B and equipment load section $16B_1$" and "the transmission section 14B is readily moveable, so that power from power generation section 12B via transmission section 14B can be readily switched from equipment load section $16B_1$ to another one of the equipment load sections $16B_{2\text{-}n}$." Ex. 1001, 8:8–12. The same paragraph further describes "reconfiguring/moving the transmission section 14B rather than the power generation system 12B when providing electrical power to the equipment load sections $16B_{1\text{-}n}$ that are disposed at different locations." *Id.* at 8:19–24. Although this portion of the '882 patent provides an example of a "readily moveable" transmission section 14B, we agree that the '882 patent "does not provide any 'objective baseline' to enable [an ordinarily skilled artisan] to differentiate 'readily moveable' from plain 'moveable.'" Opp. 11. Thus, the '882 patent does not appear to inform a skilled artisan of what the qualifier "readily" adds to the term "moveable." For example, it is unclear whether a "readily moveable" transmission line (as claimed) would be different (e.g., structurally or operationally) from a transmission line that is just "moveable." It is also unclear how the use of a "readily moveable" transmission line would differentiate the claimed "transmitting electricity" from transmitting via a "moveable" transmission line. Thus, the specification fails to inform an ordinarily skilled artisan,

with reasonable certainty, about the scope of the invention. *See Nautilus, Inc. v. Biosig Instruments, Inc.*, 572 U.S. 898, 901 (2014). Likewise, our review of the prosecution history fails to clarify the meaning of "readily movable." *See id.*

Therefore, it appears, on this record, that Petitioner has shown a reasonable likelihood that proposed substitute claim 22 fails to comply with the definiteness requirement because the phrase "readily moveable" renders the claim indefinite. Proposed substitute claims 23–28 likewise appear to be indefinite due to their dependence from and incorporation of the recitations of proposed substitute claim 22.

We acknowledge that Patent Owner has not yet had the opportunity to respond to Petitioner's contentions that proposed substitute claim 22 fails to comply with the definiteness requirement of 35 U.S.C. § 112(b). Patent Owner will have the opportunity to do so in a Reply or in a Revised Motion to Amend.

II. Obviousness

Yes. Petitioner has asserted the following obviousness challenges against the following substitute claims:

> Ground 1: Sanborn (Ex. 1006) asserted against proposed substitute claims 15–28,
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> Ground 2: Sanborn and Clarke (Ex. 1007) asserted against proposed substitute claims 15–28,
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> Ground 3: Sanborn and EE-Reference (Ex. 1009) asserted against proposed substitute claims 15–28,
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> Ground 4: Cryer (Ex. 1008) and Clarke asserted against proposed substitute claims 15–28,
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> Ground 5: Cryer and EE-Reference asserted against proposed substitute claims 15–28,
>
> Ground 6: Sanborn and Broussard (Ex. 1004) asserted against proposed substitute claims 15–21, 23, and 24,[5]

[5] Petitioner references claims "15-21, 23-33" (*see* Opp. 2–3 (table of grounds)). However, Patent Owner's proposed substitute claims are

> Ground 7: Sanborn, Clarke, and Broussard asserted against proposed substitute claims 15–21, 23, and 24,[5]
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> Ground 8: Sanborn, EE-Reference, and Broussard asserted against proposed substitute claims 15–21, 23, and 24,[5]
>
> Ground 9: Cryer, Clarke, and Broussard asserted against proposed substitute claims 15–21, 23, and 24,[5] and
>
> Ground 10: Cryer, EE-Reference, and Broussard asserted against proposed substitute claims 15–21, 23, and 24.[5]

Opp. 2–3. On this record, it appears that Petitioner (or the record) has shown a reasonable likelihood that each of Petitioner's challenges renders the respective proposed substitute claims unpatentable.

Proposed Substitute Claim 15

Proposed substitute claim 15 replaces original independent claim 1 and adds one new limitation. *See* Mot., Claims App. A. In particular, proposed substitute claim 15 amends original claim 1 to further recite "transmission lines defining a micro grid that connect the source of electricity to the electric motor and that span the long distance between the source of electricity and the electric motor." *Id.*

To provide context for the "transmission lines defining a micro grid" language added in proposed substitute claim 15, Patent Owner indicates this amendment is supported by paragraphs 6 and 23 and Figure 3 in the original specification filed as Application No. 15/183,387 ("the '387 application"), which matured into the '882 patent.[6] *See* Mot. 5; *see also* Ex. 1003, 821 (¶ 6), 828–29 (¶ 23), 839 (Fig. 3). We have reviewed the relevant portions of the '387 application and note that they disclose transmission lines and "[l]ines . . . that provide electrical communication from the transmission section to electrically powered equipment disposed in the equipment load section, and wherein the lines make up a micro

numbered 15–28—there are no proposed substitute claims 29–33. We understand Petitioner's intent was to reference proposed substitute claims 15–21, 23, and 24 (which correspond to original claims 1–7, 9, and 10).

[6] As noted above, Patent Owner identifies an incorrect application as resulting in the '882 patent. *See* Mot. 4. However, Patent Owner's references appear to correspond to the '387 application. *See id.* at 4–7.

grid," where an exemplary "micro grid 109" in Figure 3 includes "lines 24 [(included in a power generation section 12 in Figure 1)], 40 [(connecting equipment load 38 to switch gear 34)], 98 [(connecting fluid source 68 to bus 96)], 100 [(connecting additive source 72 to bus 96)], 102 [(connecting hydration unit 66 to bus 96)], 104 [(connecting proppant source 80 to bus 96)], 106 [(connecting blender 76 to bus 96)], 108 [(connecting motor 88 to bus 96)], power bus 96 [(which connects to an end of line 40 and distributes electricity to electrically powered end users in equipment load 38)], and transmission section 14 [(transmitting electrical energy from power generation section 12 to equipment load section 16 that includes equipment load 38, as shown in Figure 1)]." Ex. 1003, 821, 828–29.

Regarding Grounds 1–3 and 6–8, Petitioner relies on Sanborn to disclose the added "microgrid" limitation. Opp. 4–6. Regarding Grounds 4, 5, 9, and 10, Petitioner relies on Cryer to disclose the added "microgrid" limitation. *Id.* at 7–8. We analyze each of these contentions below.

Grounds relying on Sanborn

Petitioner contends that Sanborn discloses a first embodiment in which electrical feed source 24 receives electrical power through large generator unit 50 and a second embodiment in which electrical feed source 24 receives electrical power through smaller power generation units 52, 54. Opp. 5–6 (citing Ex. 1006 ¶¶ 18, 46–47, Fig. 2). Petitioner contends that Sanborn discloses "other power distribution components, including a 'conventional distribution circuit, a transformer to reduce the voltage,' and 'switchgear.'" *Id.* at 6 (citing Ex. 1006 ¶¶ 31–32, 39).

Sanborn appears to support Petitioner's contentions. For example, Sanborn discloses various components for routing power from power generation units (e.g., 50, 52, 54) to an electrical feed source (24), from which power is then distributed to variable frequency drives (28) and then to electric motors (included in pumpers 22) that power pumps (also in pumpers 22). *See* Ex. 1006 ¶¶ 18, 21, 38–41, 45–47, Figs. 1–2. Sanborn explains that "the electrical feed source may comprise at least one gas turbine engine. . . . [that] could be situated in a location remote from the pumping system" or "could be located on the same site . . . as the pumping system." *Id.* ¶ 19. Sanborn's transmission components for routing power via the electrical feed source include various cables and lines carrying electricity, such as: "a transmission line" or "electrical transmission

cable 26 . . . originat[ing] from any high-voltage transmission line . . . or other electrical power source" for delivering power to electrical feed source 24 (*see id.* ¶¶ 18, 39, Fig. 1); an "electrical transmission cable 26" delivering power to electrical feed source 24 from an on-site "large generator unit 50" (*id.* ¶¶ 45–46, Fig. 2); additional connections delivering power to electrical feed source 24 from other on-site "smaller power generation units (52, 54)" (*id.* ¶¶ 47–48, Fig. 2); connections delivering power to variable frequency drives (VFDs) 28 from electrical feed source 24, the VFDs being "employed to control the current from electrical feed source 24" (*id.* ¶ 40, Figs. 1, 2); and "one or more suitable electrical conduits" by which "[v]ariable-frequency drives 28 direct the required electrical power to the pumpers 22," including the pump motors (*id.* ¶¶ 11, 38, 41–42, 45, Figs. 1, 2). Sanborn's wellpad site further includes "transformers, power distribution components, switchgear (including fuses or circuit breakers), cables" and "multiple lines of power flow" to enable "distribution and sharing of the total power from the generation sub-system, to and among the units of the pumping sub-system." *Id.* ¶¶ 31–32, 39, 42.

Thus, Sanborn discloses multiple cables and lines that route and transmit electrical energy from power generation units and an electrical feed source to VFDs and pump motors. These cables and lines for routing power appear to be commensurate with the '882 patent's description of transmission lines defining a micro grid and connecting a source of electricity to electric pump motor(s).

At this stage of the proceeding, it appears that Petitioner has sufficiently shown Sanborn's electrical connections for routing power teach or suggest "transmission lines defining a micro grid that connect the source of electricity to the electric motor and that span the long distance between the source of electricity and the electric motor," as recited in proposed substitute claim 15.

We acknowledge that Patent Owner has not yet had the opportunity to address Petitioner's discussion of Sanborn as applied to the limitations of proposed substitute claim 15. Patent Owner will have the opportunity to do so in a Reply or in a Revised Motion to Amend.

Based on the current record, at this stage of the proceeding, it appears that Petitioner has shown a reasonable likelihood that proposed substitute

claim 15 is rendered obvious by Sanborn, and by the asserted combinations of Sanborn with Clarke, EE-Reference, and Broussard.

Grounds relying on Cryer

Petitioner argues that Cryer discloses a micro grid because it "describes a system of mobile vehicles (such as trailers) that include a generator (108), a control unit (110), and electric pump motors (112)." Opp. 7.

Cryer appears to support Petitioner's contentions. For example, Cryer discloses a hydraulic pump powering system that "is distributed among plural vehicles 602 (e.g., the vehicles 602A-C)," as shown in Figure 6. Ex. 1008, 14:25–28, Fig. 6. More particularly, Cryer discloses that "power generating components that generate the electric current (e.g., the prime mover 104 and the generator device 108 shown in FIG. 1 . . .) may be disposed onboard the first vehicle 602A," "power transmission components that transmit (e.g., modify and/or control) the electric current (e.g., the control unit 110 shown in FIG. 1) may be disposed on a separate vehicle 602C," and "pump components that power the hydraulic pump 114 (e.g., the pump motors 112 shown in FIG. 1) may be disposed on another separate vehicle 602B." *Id.* at 14:33–43. Thus, Cryer's "components may be located onboard the vehicles 602 that are not mechanically coupled with each other such that the vehicles 602 may independently propel themselves to the pumping location 118, where the components may then be electrically and/or fluidly coupled with each other." *Id.* Cryer further discloses that "[o]ne or more of the vehicles 602 in the system 600 may be located relatively far from one or more other vehicles 602 in the system 600 during operation." *Id.* at 14:51–53. Cryer explains that the distance between the vehicles may be "a significant distance," such as a mile or more. *Id.* at 14:53–58.

Thus, Cryer discloses that an electricity source may be disposed a long distance from the pump and motors and connected thereto by "one or more conductors (e.g., cables)" and "one or more conductive pathways (e.g., cables, buses, and the like)." *See* Ex. 1008, 7:11–15, 13:31–35. Cryer's electrical conductors for routing power from an electricity source to distant pump motors appear to be commensurate with the '882 patent's description of transmission lines defining a micro grid and connecting a source of electricity to electric pump motors.

At this stage of the proceeding, it appears Petitioner has sufficiently shown that Cryer's electrical conductors for routing power teach or suggest

"transmission lines defining a micro grid that connect the source of electricity to the electric motor and that span the long distance between the source of electricity and the electric motor," as recited in proposed substitute claim 15.

We acknowledge that Patent Owner has not yet had the opportunity to address Petitioner's discussion of Cryer as applied to the limitations of proposed substitute claim 15. Patent Owner will have the opportunity to do so in a Reply or in a Revised Motion to Amend.

Based on the current record, at this stage of the proceeding, it appears that Petitioner has shown a reasonable likelihood that proposed substitute claim 15 is rendered obvious by the asserted combinations of Cryer with Clarke, EE-Reference, and Broussard.

Proposed Substitute Claim 22

Proposed substitute claim 22 replaces original independent claim 8 and adds one new limitation. *See* Mot., Claims App. A. In particular, proposed substitute claim 22 amends original claim 8 to further recite "transmitting electricity via a readily moveable long distance transmission line to the electric motor from a power source that is a long distance from the electric motor." *Id.*

To provide context for the "readily moveable long distance transmission line" added in proposed substitute claim 22, Patent Owner indicates this amendment is supported by paragraphs 5 and 26 in the original specification filed in the '387 application. *See* Mot. 6; *see also* Ex. 1003, 820 (¶ 5), 831 (¶ 26). We have reviewed the relevant portions of the '387 application and note that they disclose "transmission lines that connect the source of electricity to the electric motor and that span the long distance between the source of electricity and the electric motor" and "the transmission lines are selectively moveable at different times to provide electrical communication between the source of electricity and the multiplicity of motors." Ex. 1003, 820. With reference to Figure 5, as discussed above, the '387 application discloses "the transmission section 14B is readily moveable, so that power from power generation section 12B via transmission section 14B can be readily switched from equipment load section $16B_1$ to another one of the equipment load sections $16B_{2\text{-}n}$." *Id.* at 831. Although the meaning of "readily movable" is not clear for the reasons set forth above, for the purpose of evaluating Petitioner's challenges to proposed substitute claim 22 we interpret a system having

transmission lines that can be moved between and connected to various pieces of dispersed equipment to satisfy the requirements of the claim.

Regarding Grounds 1–3 and 6–8, Petitioner relies on Sanborn to disclose the added "readily movable" limitation. Opp. 14–16. Regarding Grounds 4, 5, 9, and 10, Petitioner relies on Cryer to disclose the added "readily movable" limitation. *Id.* at 17–18. We analyze each these contentions below.

Grounds relying on Sanborn

Petitioner argues that Sanborn discloses electrical transmission lines in Figures 1 and 2, including "[e]lectric [c]able 26, the lines input into [e]lectrical [f]eed [s]ource 24 . . ., the line between [e]lectrical [f]eed [s]ource 24 . . . and the VFD's 28 . . ., and the line between VFD's 28 . . . and the pumpers 22 containing the motors." Opp. 14 (citing Ex. 1006, Figs. 1, 2). Petitioner argues that these transmission lines "are readily movable, because the electric motors to which they connect are located on movable vehicles (e.g., trailers or mobile platforms)." *Id.* at 16. Petitioner notes that Sanborn discloses its platforms as being mobile. *Id.* (citing Ex. 1006 ¶¶ 21, 23, 40).

Sanborn appears to support Petitioner's contentions. For example, Sanborn discloses that electrical feed source 24 may receive power from a "power generation system or sub-system [that] may be located on-site or off-site." Ex. 1006 ¶ 18; *see also id.* ¶¶ 39, 46–47. Sanborn also discloses that "the electrical feed source may comprise at least one gas turbine engine . . . [that] could be situated in a location remote from the pumping system." *Id.* ¶ 19. Thus, Sanborn teaches a power source may be located "a long distance" from electric motors of the pumping system, as recited in proposed substitute claim 22. Sanborn further appears to teach that its other transmission lines are "readily movable" because the pumpers and other equipment connected to the transmission lines are mounted on mobile platforms. *See, e.g.*, *id.* ¶¶ 21, 29, 40

Thus, Sanborn discloses cables and lines that transmit electrical energy are moveable and connectable to provide electrical power to various pieces of wellpad equipment disposed at different locations around wellheads.

At this stage of the proceeding, it appears that Petitioner has sufficiently shown Sanborn's cables and lines for routing power teach or suggest "transmitting electricity via a readily moveable long distance transmission

line to the electric motor from a power source that is a long distance from the electric motor," as recited in proposed substitute claim 22.

We acknowledge that Patent Owner has not yet had the opportunity to address Petitioner's discussion of Sanborn as applied to the limitations of proposed substitute claim 22. Patent Owner will have the opportunity to do so in a Reply or in a Revised Motion to Amend.

Based on the current record, at this stage of the proceeding, it appears that Petitioner has shown a reasonable likelihood that proposed substitute claim 22 is rendered obvious by Sanborn, and by the asserted combinations of Sanborn with Clarke, EE-Reference, and Broussard.

Grounds relying on Cryer

Petitioner argues that "Cryer discloses the 'one or more conductive pathways (e.g., cables, buses, and the like)' that are used to connect and disconnect motors." Opp. 17 (citing Ex. 1008, 7:10–19). Petitioner argues that these conductive pathways are "transmission lines" that are "readily moveable because the source of the electricity and the electric motors are each located on movable vehicles." *Id.* (citing Ex. 1008, 5:1–5, 13:31–35). Petitioner argues that an ordinarily skilled artisan "would have understood that mobile vehicles are 'moveable' and 'readily moveable.'" *Id.* at 18.

Cryer appears to support Petitioner's contentions. For example, Cryer discloses that vehicles 602 (on which equipment included in hydraulic pump powering system 600 is distributed) "may be located relatively far from one or more other vehicles 602 in the system 600 during operation," with first vehicle 602A (carrying "the power generating components that generate the electric current (e.g., the prime mover 104 and the generator device 108 shown in FIG. 1 . . .)") "located between two or more pumping locations separated by a significant distance, such as a mile (or 1.6 kilometers) or more from each other." Ex. 1008, 14:19–58. Additionally, "[d]ifferent groups of vehicles 602B [(carrying 'pump components that power the hydraulic pump 114 (e.g., the pump motors 112 shown in FIG. 1)')], 602C [(carrying 'power transmission components that transmit (e.g., modify and/or control) the electric current (e.g., the control unit 110 shown in FIG. 1)')] may be located at these separated pumping locations to receive electric energy from the vehicle 602A to power the hydraulic pumps 114 at each of the pumping locations." *Id.* at 14:58–61. Thus, Cryer discloses a power source (the power generating components on

vehicle 602A) located "a long distance" (as recited in proposed substitute claim 22) from electric pump motors (which are disposed on vehicle(s) 602B and are moveable between the separated pumping locations).

Cryer further discloses transmission lines that transmit electricity to pump motors 112 on vehicles 602B from a distant power source disposed on vehicle 602A. *See, e.g.*, Ex. 1008, 7:12–15 ("pump motors 112 may be conductively coupled with the control unit 110 by one or more conductive pathways (e.g., cables, buses, and the like)"), 13:32–35 ("two or more of the components of the powering system may be disposed on different vehicles 102 and connected by one or more conductors (e.g., cables) or conduits (e.g., manifolds)"), Fig. 6 (showing vehicles 602A–602C connected by lines). Thus, Cryer appears to teach transmission of electricity via a "long distance transmission line" as recited in proposed substitute claim 22. Cryer also appears to teach that its transmission lines are "readily moveable" because they connect equipment (e.g., power source and pump motors) located on separate mobile vehicles moveable between different (and possibly distant) pumping locations. *See, e.g.*, *id.* at 5:1–5, 14:51–61.

Thus, Cryer discloses electrical transmission lines that are moveable and connectable to provide electrical power to various pieces of power generation equipment disposed at different drilling locations.

At this stage of the proceeding, it appears that Petitioner has sufficiently shown Cryer's transmission lines teach or suggest "transmitting electricity via a readily moveable long distance transmission line to the electric motor from a power source that is a long distance from the electric motor," as recited in proposed substitute claim 22.

We acknowledge that Patent Owner has not yet had the opportunity to address Petitioner's discussion of Cryer as applied to the limitations of proposed substitute claim 22. Patent Owner will have the opportunity to do so in a Reply or in a Revised Motion to Amend.

Based on the current record, at this stage of the proceeding, it appears that Petitioner has shown a reasonable likelihood that proposed substitute claim 22 is rendered obvious by the asserted combinations of Cryer with Clarke, EE-Reference, and Broussard.

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