IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF COLORADO

Civil Action No.: 1:22-cv-02142-NYW

CRUSOE ENERGY SYSTEMS LLC, a Delaware limited liability company,

Plaintiff,

v.

ALKANE MIDSTREAM LLC, a Delaware limited liability company,

Defendant.

ALKANE MIDSTREAM LLC'S MOTION TO DISMISS COUNTS ONE, TWO, THREE, AND FOUR OF PLAINTIFF'S SECOND AMENDED COMPLAINT [ECF 69] PURSUANT TO FEDERAL RULE OF CIVIL PROCEDURE 12(b)(6)

Counts One, Two, Three, and Four of Plaintiff Crusoe Energy Systems LLC's ("Crusoe's") Second Amended Complaint respectively assert infringement of U.S. Patent Nos. 10,862,307 (the "'307 Patent"), 10,862,309 (the "'309 Patent"), 11,437,821 (the "'821 Patent"), and 11,451,059 (the "'059 Patent").[1] As acknowledged by the Second Amended Complaint, the supposed inventive feature of the Asserted Patents was the idea to "harnesses stranded natural gas to create on-site power that supports intensive computing functions." ECF 69 p. 9 ¶ 29. Similarly, the

[1] The '307 Patent, the '309 Patent, the '821 Patent, and the '059 Patent will collectively be referred to hereinafter as the "Asserted Patents." The '307 Patent is attached to Plaintiff's Second Amended Complaint as Exhibit 1 (ECF 69-1). The '309 Patent is attached to Plaintiff's Second Amended Complaint as Exhibit 2 (ECF 69-2). The '821 Patent is attached to Plaintiff's Second Amended Complaint as Exhibit 10 (ECF 69-10). The '059 Patent is attached to Plaintiff's Second Amended Complaint as Exhibit 12 (ECF 69-12). The Citations to the contents of Asserted Patents will be in the form of Column: Line X-Line Y.

Asserted Claims[2] of the Asserted Patents are directed to the abstract idea of using a known and conventional energy source (electricity generated from natural gas) to power computers using any standard conventional component that would be necessary to achieve that result. Thus, under precedential case law, the Asserted Claims are ineligible for patenting under 35 U.S.C. § 101 and Counts One, Two, Three, and Four of Plaintiff's Second Amended Complaint, asserting infringement of those patents, should be dismissed pursuant to Federal Rule of Civil Procedure 12(b)(6).

CONFERRAL

Pursuant to this Court's practice standards, Alkane conferred with Crusoe concerning this motion. Crusoe opposes it.

ARGUMENT

I. Legal Standard for Patent Eligibility Under 35 U.S.C. § 101.

Section 101 of the Patent Act provides that "[w]hoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title." 35 U.S.C. § 101. In addition to providing the authority to grant patent protection to the enumerated classes of inventions, section 101 also codified "longstanding judicial exceptions, which provide that laws of nature, natural phenomena, and abstract ideas are not eligible for patenting." *ChargePoint, Inc. v. SemaConnect, Inc*., 920 F.3d 759, 765 (Fed. Cir. 2019) (*citing Alice Corp. v. CLS Bank Int'l*, 573 U.S. 208, 216 (2014)). As explained by the Supreme Court,

[2] Crusoe is asserting claims 1 and 14-16 of the '307 Patent, claims 1 and 14 of the '309 Patent, claims 1-3, 5-8, and 15 of the '821 Patent, and claims 1, 3-4, 6, 10, 12, 15, 16-17, 19, 20, 22, 24, and 27 of the '059 Patent (collectively the "Asserted Claims").

"without this exception, there would be considerable danger that the grant of patents would 'tie up' the use of such tools [i.e., laws of nature, natural phenomena, and abstract ideas] and thereby 'inhibit future innovation premised upon them.'" *Am. Axle & Mfg., Inc. v. Neapco Holdings LLC*, 967 F.3d 1285, 1292 (Fed. Cir. 2020) (internal quotations and citations omitted).

In analyzing whether the claims are patent eligible under § 101, courts are instructed to "employ the two-step analysis articulated in *Mayo Collaborative Services v. Prometheus Laboratories, Inc.*, 566 U.S. 66, 132 S.Ct. 1289, 182 L.Ed.2d 321 (2012), and further delineated in *Alice*." *ChargePoint*, 920 F.3d at 765.

Step one of the *Mayo/Alice* test asks "whether the claims are directed to a law of nature, natural phenomenon, or abstract idea." *Am. Axle*, 967 F.3d at 1292. Notably, the Federal Circuit has provided guidance that "the form of the claims should not trump basic issues of patentability." *Bancorp Servs., L.L.C. v. Sun Life Assurance Co. of Can. (U.S.)*, 687 F.3d 1266, 1277 (Fed. Cir. 2012). Rather, courts should look to the "underlying invention for patent-eligibility purposes." *Id.* at 1276 (*quoting CyberSource Corp. v. Retail Decisions, Inc.*, 654 F.3d 1366, 1374 (Fed. Cir. 2011)). In this regard, the "directed to" analysis includes "looking to the specification to understand 'the problem facing the inventor' and, ultimately, what the patent describes as the invention." *ChargePoint*, 920 F.3d at 767. Under step one of the *Mayo/Alice* test, even claims that on their face purport to claim to an apparatus or system may be deemed to be directed to patent ineligible laws of nature, natural phenomena, and abstract ideas. *Bancorp Servs.*, 687 F.3d at 1276-77 (rejecting argument that "system and medium claims cover tangible machines and manufactures and therefore cannot be considered patent-ineligible abstract ideas"); *ChargePoint*, 920 F.3d at 770 (rejecting argument that claims were eligible because the "claimed invention

'build[s] a better machine'" and noting that "as the Supreme Court indicated in *Alice*, whether a device is 'a tangible system (in § 101 terms, a 'machine')' is not dispositive.").

If the claims are directed to a law of nature, natural phenomenon, or abstract idea, step two of the *Mayo/Alice* test asks "whether the claims embody some 'inventive concept' – i.e, whether the claims contain 'an element or combination of elements that is sufficient to ensure that the patent in practice amounts to significantly more than a patent upon the ineligible concept itself.'" *Am. Axle*, 967 F.3d at 1292 (internal quotations and citation omitted).

II. Patent Eligibility of the '307, '309 Patent, '821, and '059 Patents Under § 101 Is Ripe for Determination.

A. Patent Ineligibility Can Be Decided at the Rule 12(b)(6) Stage.

"'The legal sufficiency of a complaint under Rule 12(b)(6) is a question of law.'" *Silva v. U.S.*, 45 F.4th 1134, 1137 (10th Cir. 2022) (*quoting Tal v. Hogan*, 453 F.3d 1244, 1252 (10th Cir. 2006)). "'To survive a Rule 12(b)(6) motion, Plaintiff's complaint must allege sufficient facts to state a claim for relief plausible on its face.'" *Id.* (*quoting Strain v. Regalado*, 977 F.3d 984, 989 (10th Cir. 2020)). "For the purposes of such a motion, 'we must accept all the well-pleaded allegations of the complaint as true and must construe them in the light most favorable to the plaintiff.'" *Id.* (*quoting Albers v. Bd. of Cty. Comm'rs*, 771 F.3d 697, 700 (10th Cir. 2014)).

"Patent eligibility under § 101 is a question of law based on underlying facts." *Universal Secure Registry LLC v. Apple Inc.*, 10 F. 4th 1342, 1346 (Fed. Cir. 2021). The Federal Circuit has "repeatedly recognized that in many cases it is possible and proper to determine patent eligibility under 35 U.S.C. § 101 on a Rule 12(b)(6) motion." *Genetic Techs. Ltd. v. Merial L.L.C.*, 818 F.3d 1369, 1373 (Fed. Cir. 2016). "[P]atent eligibility can be determined at the Rule 12(b)(6) stage 'when there are no factual allegations that, taken as true, prevent resolving the eligibility question

as a matter of law.'" *Universal Secure Registry*, 10 F. 4th at 1346 (*quoting Aatrix Software, Inc. v. Green Shades Software, Inc.*, 882 F.3d 1121, 1125 (Fed. Cir. 2018)). In this case, there are no factual allegations that, taken as true, prevent resolving that the Asserted Claims are ineligible for patenting as a matter of law.

B. Claim Construction Is Not Required.

"Although the determination of patent eligibility requires a full understanding of the basic character of the claimed subject matter, claim construction is not an inviolable prerequisite to a validity determination under § 101." *Content Extraction & Transmission LLC v. Wells Fargo Bank, N.A.*, 776 F.3d 1343, 1349 (Fed. Cir. 2014). "In many cases, too, evaluation of a patent claim's subject matter eligibility under § 101 can proceed even before a formal claim construction." *Genetic Techs.*, 818 F.3d at 1374 (noting that, in that case, "there is no claim construction dispute relevant to the eligibility issue.").

Crusoe has taken the position that none of the terms will require construction "[u]nless Alkane proposes or otherwise argues that a claim term (or terms) should be interpreted contrary to their plain and ordinary meaning." ECF 9 at pg. 8 n.5. Accordingly, there is no need for a claim construction to determine patent eligibility. *ChargePoint*, 920 F.3d at 767 ("In this case, [plaintiff] has not expressed a need for claim construction, so we need not look to the specification for that purpose.").

III. Step 1 of the *Mayo/Alice* Test: The Asserted Claims Are "Directed To" the Abstract Idea of Utilizing Stranded Gas to Power Computers.

In analyzing whether a claim is "directed to" a patent ineligible law of nature, natural phenomena, and abstract ideas, courts are advised to "look to the 'focus of the claimed advance.'" *Am. Axle*, 967 F.3d at 1292. "As 'reflected repeatedly in our cases,' to avoid ineligibility, a claim

must 'ha[ve] the specificity required to transform [the] claim from one claiming only a result to one claiming a way of achieving it.'" *Id.* at 1296 (*quoting SAP Am., Inc. v. InvestPic, LLC*, 898 F.3d 1161, 1167 (Fed. Cir. 2018)). Claims can be found to be directed to an abstract idea when "[t]he focus of the claimed advance [] is simply the concept of achieving that result, by whatever structures or steps happen to work." *Id*.

A. The Asserted Claims Recite the Result of Utilizing Stranded Gas to Power Computers without any Specific Structures for Achieving that Result.

Claim 1 of the '307 Patent is representative of the Asserted Claims of all four Asserted Patents.[3] Claim 1 of the '307 Patent recites purely functional language for achieving the result of

[3] It is appropriate to only address a representative claim when performing the § 101 analysis. *Content Extraction*, 776 F.3d at 1348 (rejecting plaintiff's argument that the court should have individually addressed each claim because all the claims were substantially similar and linked to the same abstract idea); *see also Mortg. Grader, Inc. v. First Choice Loan Servs., Inc.*, 811 F.3d 1314, 1324 n.6 (Fed. Cir. 2016); *Am. Axle*, 967 F.3d at 1299 (finding asserted claim 22 not patent eligible and also holding claim 36 and dependent claims ineligible because "Claim 36 is virtually indistinguishable" and "[h]aving determined that independent claim 22 is not patent eligible under § 101, we need not separately determine eligibility of the asserted dependent claims" when claim 22 was "collectively representative of all claims dependent from this claim.").

In considering whether Claim 1 of the '307 Patent is representative of the Asserted Claims of the '059 Patent, it is of no moment that the '059 Patent is directed at method claims instead of system claims. (Compare Asserted Claims of '307, '309, and '821 Patents at ECF 69-1, 69-2, and 69-10 (claiming purported systems) *with* Asserted Claims of '059 Patent at ECF 69-12 (claiming a purported method)). Like the purported systems claimed in the '307, '309, and '821 Patents, the '059 Patent's method claims recite a handful of generic, conventional steps to transform fuel gas into electricity and then using the electricity to power a plurality of generic computing units. The '059 claims cover an effect produced by the use of power generation systems to convert fuel gas (the purported "systems" claimed by the other Asserted Patents). *See* ECF 69-12, 28:1-36. The system claims and method claims are thus substantially similar and linked to the same abstract idea. In *Alice Corp.*, a majority of the court held that "system claims that closely track method claims and are grounded by the same meaningful limitations will generally rise and fall together" in the § 101 analysis. *Accenture Glob. Servs. GmbH v. Guidewire Software, Inc.*, 728 F.3d 1336, 1341 (Fed. Cir. 2013) (citing *Alice Corp.*, 717 F.3d at 1274 n.1)). "Those judges came to that conclusion because the method and system claims were so closely related that the system claim essentially implemented the process of the method claim on a general purpose computer." *Id.*

utilizing gas to power computers without providing any specificity regarding physical structures or steps required to do so, such that the focus of the advance is simply achieving that result by whatever structures or steps happen to work. The bold and underlining highlights the recitation of the abstract idea using purely functional language to describe generically identified components (such as "power generation modules," an "electrical transformation module," and "communications system") to achieve the result of powering computers using electricity that was generated from fuel gas.

> 1. A flare mitigation system comprising:
> an electrical power generation system comprising:
> one or more **power generation modules, each adapted to**: receive a fuel gas stream comprising a fuel gas associated with a heat value of at least about 1,000 Btu/scf; and **consume the fuel gas stream to generate a high-voltage electrical output** associated with a first voltage; and
> a parallel panel in electrical communication with each of the power generation modules, **the parallel panel adapted to**:
> receive the high-voltage electrical output from each of the power generation modules; and combine and synchronize said high-voltage electrical outputs into a combined high-voltage electrical output; and an electrical transformation module in electrical communication with the parallel panel, the **electrical transformation module adapted to**: receive the combined high-voltage electrical output; and transform the combined high-voltage electrical output into a low-voltage electrical output associated with a second voltage that is lower than the first voltage; and
> a distributed computing system powered by the electrical power generation system, the distributed computing system comprising:
> a communications system comprising one or more data satellite antennas, the **communications system adapted to** provide a network; and a first mobile data center comprising: an enclosure defining an interior space; a plurality of distributed computing units located within the interior space of the enclosure, each of the plurality of distributed computing units in

(citing *Alice Corp.*, 717 F.3d at 1291 ("Despite minor differences in terminology . . . the asserted method and system claims require performance of the same basic process. Although the system claim associates certain computer components with some of the method steps, none of the recited hardware offers a meaningful limitation beyond generally linking 'the use of the [method] to a particular technological environment,' that is, implementation via computers.'")). That is the case here.

> communication with the network; and a power system located at least partially within the interior space of the enclosure, the power system in electrical communication with the electrical transformation module and the plurality of distributed computing units **such that** the power system **receives the low-voltage electrical output and powers each of the plurality of distributed computing units**.

'307 Patent, 28:1-49 (emphasis added). As shown in the side-by-side comparison of the claims attached as Exhibit 1, Claim 1 of the '309 Patent, Claim 1 of the '821 Patent, and Claim 1 of the '059 Patent are substantially similar in that they contain the same purely functional language and are linked to the same abstract idea.[4] *See* '309 Patent, 28:1-49; '821 Patent, 28:8-43; '059 Patent, 28:2-35.

B. The Specification Only Describes Components in Functional Terms.

In addition to looking to the claims themselves, the "directed to" inquiry is also informed by "looking to the specification to understand 'the problem facing the inventor' and, ultimately, what the patent describes as the invention." *ChargePoint*, 920 F.3d at 767. A claim is directed to an abstract idea when the specification fails to provide any technical details for tangible components recited in the claims and only describes them in purely functional terms. *Id.*

Like the claims, the specification of the Asserted Patents is replete with references to functional language (e.g., "adapted to") and does not provide any detail regarding how the components recited in the claims accomplish any of the results recited in the claims. *See, e.g.*,

[4] Claim 1 of the '309 Patent and Claim 1 of the '599 Patent further recites an additional generic component of "a monitoring and control [system/equipment]."

'307 Patent, 4:64-67; 5:2-6; 5:7-47; 6:29-33; 6:59-7:3; 15:46-48; 16:41-45; 17:57-63; 17:64-18:2; 19:57-60; 21:8-11.[5]

The specification describes the components in the claims that consume gas and generate electricity and distributed computing units as conventional and having existed prior to any inventions claimed in the Asserted Patents. For example, the specification states that "nearly any generator may be employed in the power generation modules 331." '307 Patent, 16:24-25. The specification also notes that it was common prior practice for oil and gas operators to sell their natural gas for "low-cost power generation." 2:4-14.

Similarly, the specification describes the distributed computing units as conventional components that "are generally adapted to conduct any number of processing intensive tasks" and "may be employed to execute mathematical operations in relating to the mining of cryptocurrencies including . . . hashing algorithms." '307 Patent, 5:7-47. The specification also makes clear that using a distributed system of computers to mine cryptocurrencies was already well known. '307 Patent, 2:15-24.

That both (1) the components used to consume gas to generate to electricity and (2) the distributed computing units were merely conventional and already well known supports Alkane's position that the Asserted Patents' claims are directed to the abstract idea. *Universal Secure Registry,* 10 F. 4th at 1350 (finding claims directed to abstract idea, rejecting argument that "claims cover an innovative technological solution to address problems specific to prior" art, "because the claims do not include sufficient specificity" and the specification disclosed the claim limitations

[5] As the Asserted Patents share nearly identical specifications, this motion only references the specification of the '307 Patent. Identical passages can be found in the '309, '821, and '059 Patents, although the line number may vary slightly.

were conventional and long-standing). Indeed, there is no assertion in the specification that components recited in the claims are improved or operate differently than they otherwise would. *ChargePoint*, 920 F.3d at 767-68 (finding specification suggests the claim is directed to an abstract idea of "communicating requests to a remote server and receiving communications from that server, i.e., communication over a network" when the specification "never suggests that the charging station itself is improved from a technical perspective, or that it would operate differently than it otherwise could" and does not "suggest that the invention involved overcoming some sort of technical difficulty in adding networking capability to charging stations").

The specification also suggests the claim is directed to an abstract idea of using a known and conventional energy source (electricity generated from natural gas) to power computers when it discusses what the purported invention "relates to" and the "need for systems." *Id.*at 767-68 (finding specification suggests the claim is directed to an abstract idea of "communicating requests to a remote server and receiving communications from that server, i.e., communication over a network" when the specification described "the problem perceived by the patentee was a lack of a communication network for these charging stations, which limited the ability to efficiently operate them from a business perspective."). As one example, the specification of the Asserted Patents states that "there remains a need for systems and methods for generating electricity from natural gas produced from oil wells." '307 Patent, 2:35-37. As another example, the specification states as follows: "More specifically, the specification relates to on-site generation of electricity from natural gas to power modular processing units adapted to perform distributed computing tasks." 307 Patent, 1:18-21.

Notably, the broad functional language of the claims would largely preempt the use of a fuel gas stream to generate electricity to power distributed computing units. *Id.* at 768 ("We agree with [defendant] that, based on the claim language, claim 1 would preempt the use of any networked charging stations" and noting that "[t]he breadth with which this claim is written further indicates that the claim is directed to the abstract idea of communication over a network for device interaction."). In a case repeatedly cited by the Federal Circuit, the Supreme Court stated:

> **No one, we suppose will maintain that Fulton could have taken out a patent for his invention of propelling vessels by steam**, describing the process and machinery he used, **and claimed under it the exclusive right to use the motive power of steam, however developed, for the purpose of propelling vessels**. It can hardly be supposed that under such a patent he could have prevented the use of the inproved [sic] machinery which science has since introduced; although the motive power is steam, and the result is the propulsion of vessels. **Neither could the man who first discovered that steam might, by a proper arrangement of machinery, be used as a motive power to grind corn or spin cotton, claim the right to the exclusive use of steam as a motive power for the purpose of producing such effects**.

O'Reilly v. Morse, 56 U.S. 62, 113 (1853) (emphasis added). Similarly, the Asserted Claims cannot be found to recite eligible subject matter and are directed to an abstract idea by claiming the exclusive use of a fuel gas stream to generate electricity to power distributed computing units, however accomplished. *ChargePoint*, 920 F.3d at 770 (holding that claim was directed to an abstract idea and noting that "[I]n short, the inventors here had the good idea to add networking capabilities to existing charging stations to facilitate various business interactions. But that is where they stopped, and that is all they patented. We therefore hold that claim 1 is 'directed to' an abstract idea").

IV. Step 2 of the *Mayo/Alice* Test: The Asserted Claims Fail to Recite an "Inventive Concept."

"At step two of the *Alice* inquiry – the search for an inventive concept – we 'consider the elements of each claim both individually and 'as an ordered combination' to determine whether the additional elements 'transform the nature of the claim' into a patent-eligible application.'"' *ChargePoint*, 920 F.3d at 773 (internal citations omitted). Where a claim is directed to an abstract idea, the claim must include additional features to ensure that the claim is more than a drafting effort to monopolize the abstract idea. *Id.* These additional features cannot simply be well-understood, routine, conventional activities previously known to the industry. *Id*. Even "adding novel or non-routine components is not necessarily enough to survive a § 101 challenge." *Id*. "Instead, the inventive concept must be 'sufficient to ensure that the patent in practice amounts to significantly more' than a patent on the abstract idea." *Id*.

As noted previously, the specification acknowledges that the components in the claims that consume gas and generate electricity and the distributed computing units are conventional and have existed prior to any inventions claimed in the Asserted Patents. '307 Patent, 2:4-14; 2:15-25; 5:7-47; 16:24-25; *Universal Secure Registry*, 10 F. 4th at 1350 (rejecting argument that claim recited an inventive concept and noting "the patent itself acknowledges that the claimed step of generating time-varying codes for authentication of a user is conventional and long-standing."). There is nothing in the specification suggesting that the claimed combination of components achieves any more than expected. *Id.* at 1353 (finding claims failed to recite inventive concept and noting "[t]here is nothing in the specification suggesting, or any other factual basis for a plausible inference (as needed to avoid dismissal), that the claimed combination of these conventional authentication techniques achieves more than the expected sum.").

Thus, the claims do not disclose an inventive concept. *ChargePoint*, 920 F.3d at 773-74 (rejecting argument that the patent represents an "unconventional solution to technological problems in the field, and thus contain an inventive concept" when "the alleged 'inventive concept' that solves the problems identified in the field is that the charging stations are network-controlled," "[b]ut network control is the abstract idea itself, and 'a claimed invention's use of the ineligible concept to which it is directed cannot supply the inventive concept that renders the invention 'significantly more' than that ineligible concept.").

CONCLUSION

For the foregoing reasons, Alkane respectfully requests that the Court grant its Motion to Dismiss Counts One, Two, Three, and Four of Plaintiff's Second Amended Complaint, asserting patent infringement, pursuant to Federal Rule of Civil Procedure 12(b)(6) because claims 1 and 14-16 of the '307 Patent, claims 1 and 14 of the '309 Patent, claims 1-3, 5-8, and 15 of the '821 Patent, and claims 1, 3-4, 6, 10, 12, 15, 16-17, 19, 20, 22, 24, and 27 of the '059 Patent are ineligible for patenting under 35 U.S.C. § 101. *See*, *e.g.*, *Universal Secure Registry*, 10 F. 4th at 1358 (affirming district court's decision to dismiss under Rule 12(b)(6) because the asserted patents claimed unpatentable subject matter under 35 U.S.C. § 101); *ChargePoint*, 920 F.3d at 775 (holding claims ineligible when the only possible inventive concept is the abstract idea itself and noting that "the specification gives no indication that the patented invention involved how to add network connectivity to these charging stations in an unconventional way.").

Respectfully submitted this 9th day of November, 2022.

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