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.

DEFENDANT ALKANE MIDSTREAM LLC'S OPPOSITION TO CRUSOE'S MOTION FOR TEMPORARY RESTRAINING ORDER

In its haste to seek a TRO, Crusoe Energy Systems LLC ("Crusoe") failed at what should have been its first and foremost obligation—to accurately present the facts to the Court. The actual facts—as compared to Crusoe's guesswork—establish that Alkane Midstream LLC ("Alkane") does not infringe, that Crusoe cannot establish irreparable harm, and that Crusoe's motion for a temporary restraining order seeks to drastically alter the status quo, not preserve it.

First, Crusoe cannot establish a likelihood of success on the merits of its patent infringement claims. Crusoe's infringement allegations are entirely premised on direct infringement by Alkane alone. Each of the patent claims asserted against Alkane requires a distributed computing system. While there are data centers (i.e. distributed computing systems) present at a handful of the Alkane wellsites, Alkane does not own or operate these data centers. Alkane merely generates electricity at the customer specified voltage and sells it to third parties that own and operate the data centers. Declaration of Ryan Blazei ("Blazei Dec.") ¶16. These facts alone defeat Crusoe's infringement allegations.

Further, Crusoe's claim charts contain numerous fatal errors. Crusoe incorrectly states that Alkane operates its power generation modules to have an output at 480VAC, fails to acknowledge the absence of any electrical transformation modules within the relied upon photograph, mistakes basic laws of electricity to incorrectly assert that an electrical transformation module is necessary present, and confuses fiber optic communication interface boxes with data satellite antennas. Declaration of Ed Woods ("Woods Dec.") ¶¶20-34. Critically, Alkane's power generation modules lack the electrical transformation module required by each of the asserted claims. There are also substantial questions as to whether Crusoe's patents can withstand an invalidity challenge.

Second, Crusoe has failed to establish that it will suffer irreparable harm absent a TRO.

The crux of Crusoe's argument is that it lost the opportunity to conduct cryptocurrency mining at a Colorado well pad and it cannot easily redeploy its equipment. Crusoe neglects to disclose that it rejected an opportunity to continue conducting it cryptocurrency mining operations. The alleged harms—which Alkane disputes—can be remedied through a monetary award. Crusoe's allegations of lost market share are unsubstantiated and belied by the facts. Notably, any potential harm that may befall Crusoe—the "unicorn" status juggernaut—from having to compete with Alkane pales in comparison the harm that would befall Alkane should it be enjoined.

Third, Crusoe seeks to drastically alter the status quo in a manner that is not in the public interest. The Colorado Producers have already chosen Alkane's long-term solution to managing flare gas—conversion to NGLs and LNG (collectively referred to as "Gas Processing")—over the volatility of cryptocurrency mining that Crusoe offers. While Crusoe hopes that a TRO will allow it to resurrect its business relationship with the Colorado Producers, such an outcome would require an irreversible departure from the current status quo. Crusoe's motion for temporary restraining order should be denied in full.

I. FACTUAL BACKGROUND

A. Alkane's Use of Stranded Gas to Produce Electricity Predated Crusoe's Alleged Invention

Alkane was founded in 2014. Blazei Dec. ¶¶3-4. From its inception, Alkane's primary focus was on flare gas management through the production and monetization of NGLs and LNG. *Id*. ¶ 4. Alkane's Gas Processing uses an entirely different process than Crusoe uses to generate electricity. *Id*. ¶ 5. Starting in 2015, Alkane would rent gaseous generator sets to generate electricity for use in its Gas Processing operations. *Id*. ¶6. In 2017, Alkane began purchasing its own natural gas generator sets, and in June of 2018 it began selling electricity from stranded gas

for consumption on oil and gas production properties. *Id*. ¶¶7-8. While Alkane does recruit third-party customers in energy-intensive fields—including cloud computing and agriculture—Alkane does not control how its customers use the electricity. *Id*. ¶16.

B. Alkane Did Not Copy the Idea of Powering Cloud Computing from Crusoe

In its motion, Crusoe relies on modifications between a November 14, 2019 Presentation and an October 5, 2020 Presentation to insist that Alkane changed its offerings after learning of Crusoe's flare gas mitigation systems. ECF 9 pp. 4-5. As actually demonstrated by the November 14, 2019 Presentation, Alkane already recognized "cloud computing" (i.e., cryptocurrency mining) as a potential use for electricity generated from stranded gas. ECF 9-14 p. 13 (7th bullet point); Blazei Dec. ¶10. Notably, by November 14, 2019, the use of electricity generated from flare gas to power cryptocurrency mining was already well known within the industry. Blazei Dec. ¶11. There are articles evidencing that multiple companies were already generating electricity from fuel gas to power cryptocurrency mining before Charles and Chase went hiking in 2018. Exs. 5-12.

Alkane's October 5, 2020 Presentation did evolve from its November 14, 2019 Presentation, but not as a result of copying Crusoe. Blazei Dec. ¶14. Rather, the October 5, 2020 presentation reflects a potential solution Alkane was developing in response to the Northern Border Pipeline Company's ("Northern Border") tariff filing. *Id*. ¶14.

C. The Colorado Producers Approached Alkane

Prior to the events discussed in Crusoe's motion, Alkane had a prior relationship with one of one of the Colorado Producer's vice presidents. Woods Dec. ¶7. On May 10, 2022, this individual reached out to Ed Woods unsolicited to inquire into Alkane's interest in processing stranded gas in Colorado. Woods Dec. ¶¶6, 10. At the time, Alkane was entirely unaware of

Crusoe's involvement. Blazei Dec. ¶22. Over the following weeks, Alkane and the Colorado Producers negotiated the terms for Alkane to manage the gas at the well site the Colorado Producers were producing. *Id*. ¶ 3. These negotiations culminated with a July 13, 2022 agreement committing Alkane to purchase at least a minimum quantity of stranded gas. *Id*. ¶23. Eventually Alkane learned of Crusoe's involvement, but at no time was Alkane privy to the terms of any contractual arrangements between the Colorado Producers and Crusoe. *Id*. ¶22.

Although Alkane was not aware of it at the time, Alkane has come to understand that the Colorado Producers approached Alkane after developing concerns regarding the long-term viability of Crusoe's cryptocurrency mining based business model. *Id*. ¶24. Instead, the Colorado Producers have expressed a preference for Alkane to convert the stranded natural gas into NGLs, LNG, and/or methanol. *Id*. ¶ 24. Alkane does plan to use the stranded gas to generate electricity that a third-party will use to mine cryptocurrency, but this is merely a stop gap until Alkane fully commissions the Gas Processing operations. *Id*. ¶26.

On July 22, 2022, while Mr. Woods was in attendance at the Colorado Producers offices, he was pulled into a meeting with Crusoe. Woods Dec. ¶11. It was at that meeting that Alkane first learned that Crusoe had any patents. Blazei Dec. ¶24. Woods Dec. ¶11. The Colorado Producers had one gathering pad at the time, with a second larger gathering pad scheduled to open in the fall. Woods Dec. ¶12. Crusoe already had power generation and cryptocurrency mining operations at the first gathering pad. *Id*. ¶12. At the meeting, Alkane offered that Crusoe could remain on the Colorado gathering pad to generate electricity and operate its cryptocurrency mining operations throughout Alkane's transition to Gas Processing. *Id*. ¶13. Alkane continued exchanging communications with Crusoe regarding the potential for Crusoe to remain on the Colorado

wellsite—including setting up additional equipment on the second gathering pad once open—until approximately August 5, 2022, at which point Crusoe abruptly stopped responding with no explanation. *Id*. ¶14; Ex. 3. It is Alkane's belief that Crusoe is still generating electricity and operating its cryptocurrency mining at the first well pad. *Id*. ¶14.

Alkane anticipates mobilizing its first deployment of equipment to the Colorado wellsite shortly. Blazei Dec. ¶26. This first mobilization will consist of equipment for extracting NGLs. *Id*. ¶26. Alkane has also been engaged in contract discussions with a cryptocurrency mining operation to purchase electricity from Alkane with hopes of a November 1, 2022 deployment. *Id*. ¶28. Alkane currently projects that the full transition to Gas Processing will take approximately 18-24 months. *Id*. ¶26. Pursuant to the contract with the Colorado Producers, as of November 1, 2022, Alkane will be obligated to process 100% of the stranded natural gas extracted by the Colorado Producers. *Id*. ¶38. If Alkane fails to process stranded natural gas—because this Court enjoins them—it would prevent the Colorado Producers from increasing its oil output according to schedule and would likely force the Colorado Producers to cancel its contract with Alkane. *Id*. ¶39.

II. ARGUMENTS AND AUTHORITIES

A. Legal Standards and Background Law

In patent law cases, the movant must establish the existence of both movant's likelihood of success on the merits and the threat of irreparable harm to be entitled to preliminary injunctive relief. *Altana Pharma AG v. Teva Pharms. USA, Inc.*, 566 F.3d 999, 1005 (Fed. Cir. 2009). If the accused infringer "raises a substantial question" concerning either infringement or validity, then the patentee has not established that it is likely to succeed on the merits. *Id*. at 1005-06; *Titan Tire Corp. v. Case New Holland, Inc.*, 566 F.3d 1372, 1381-85 (Fed. Cir. 2009) (affirming denial of

preliminary injunction where there were substantial validity questions); *Sofamor Danek Grp, Inc. v. DePuy-Motech, Inc.*, 74 F.3d 1216, 1222–23 (Fed. Cir. 1996) (affirming denial of preliminary injunction where patentee failed to show likelihood of success in showing infringement).

Because injunctive relief is an "extraordinary remedy, the plaintiff's right to relief must be clear and unequivocal." *Schrier v. Univ. of Colo.*, 427 F.3d 1253, 1258 (10th Cir. 2005*); see also Barrie v. Choate*, No. 22-cv-02014-RM, 2022 WL 3369542, at *2 (D. Colo. August 16, 2022); *Nat'l Steel Car, Ltd. v. Canadian Pac. Ry., Ltd.*, 357 F.3d 1319, 1324 (Fed. Cir. 2004) (quoting *Intel Corp. v. ULSI Sys. Tech., Inc.*, 995 F.2d 1566, 1568 (Fed. Cir. 1993)) ("A preliminary injunction is a 'drastic and extraordinary remedy that is not to be routinely granted.'"). Injunctive relief is especially disfavored where it will alter the status quo. *Schrier*, 427 F.3d at 1259.

B. Likelihood of Success on the Merits

1. Alkane Is Not Infringing the Asserted Patents Because It Does Not Operate a Distributed Computing System

Crusoe presented claim charts alleging Alkane's "Flare Gas Mitigation System" meets all the elements of the asserted claims. These claim charts are premised on false assumptions and which could have easily been dismissed with adequate due diligence. "[U]nder *BMC Resources Inc. v. Paymentech, L.P.*, 498 F.3d 1373 (Fed.Cir. 2007) and *Cross Medical Products v. Medtronic Sofamor Danek, Inc.*, 424 F.3d 1293 (Fed.Cir.2005), an accused infringer must either practice every element or control or direct the actions of another that practices the element in question." *Centillion Data Sys. LLC v. Qwest Commc'ns Int'l Inc.*, 631 F.3d 1279 (Fed. Cir. 2010). Each of the claims require a distributed computing system. ECF Nos. 9-1; 9-2. But Alkane does not supply, own, or operate a distributed computing system at any of the wellsites where it provides its

services. Blazei Dec. ¶ 17. Further, Alkane does not intend to supply, own, or operate a distributed computing system at the Colorado wellsite. *Id*. ¶ 29.

At the sites in which cryptocurrency mining operations are present, Alkane merely generates electricity and sells it to third parties that own and operate their own distributed computing systems. *Id*. ¶18. Alkane generates the electricity to its customers at 415VAC, after which point custody of the electricity is relinquished to the customers. *Id*. ¶18. In this aspect Alkane is simply a mobile/virtual powerline service, operating as a utility to sell power to its customers. *Id*. ¶18. While Alkane recruits potential customers for electricity consumption on its projects, Alkane has no input into its prospective customers' designs or uses of their distributed computing systems and Alkane's monitoring and control systems are not in communication with its customer's equipment consuming its power. Blazei Dec. ¶19; Woods Dec. ¶32. While cryptocurrency mining equipment typically has similar voltage requirements (415VAC), it is the customer that ultimately specifies the voltage it requires. Blazei Dec. ¶19.

Alkane simply does not practice every element of the asserted claims. While not even asserted at this time, Crusoe will also fail should it attempt to rectify its allegations under a divided infringement theory as Alkane does not "direct or control" or "establishing the manner or timing of" its customers' performance and is not acting as a joint enterprise with its customers. *Akamai Techs., Inc. v. Limelight Networks, Inc*., 797 F.3d 1020, 1023 (Fed. Cir. 2015).

2. Alkane Is Not Infringing the Asserted Patents Because Its Power Generation Configuration Does Not Include "an Electrical Transformation Module" to Transform "the Combined High-Voltage Electrical Output into a Low-Voltage Electrical Output"

Each of the Asserted Claims require an electric power generation system, including an "electrical transformation module" (i.e. a transformer) to transform "the combined high-voltage

electrical output [following the parallel panels] into a low-voltage electrical output." Alkane's power generation configurations fail to meet this limitation on multiple levels. Crusoe's claim charts presume that Alkane generates electricity at 480VAC and delivers it at 210VAC. ECF 9-3 at 1(e); 9-4 at 1(d); 28-2 at ECF 24-2 at 90-93 (claim 1(d)). Crusoe is incorrect. Alkane's generator fleet, though rated for 480VAC, is capable of having output voltage adjusted to meet customer specifications without the need for an electrical transformation module. Woods Dec. ¶¶21-22. Alkane's customers that operate data centers for cryptocurrency mining specify a voltage of 415VAC to be provided at an agreed-upon delivery point. *Id*. ¶21. Indeed, in applications in which its customers require electricity to be supplied at 415VAC, Alkane operates and configures its electrical power generation system(s) to produce electricity at this voltage. *Id*. ¶22.

Crusoe and its expert further demonstrate a lack of electrical knowledge by stating in their claim charts that operating multiple generators in parallel creates a higher combined voltage. *Id*. ¶24. Multiple generators operated in parallel allows for increased combined wattage, but voltage remains constant. *Id*. ¶¶23-24. As such, Alkane generates electricity at 415VAC and it remains at 415VAC through the delivery to its customers. *Id*. ¶25. Because Alkane does not transform high-voltage output into a lower-voltage output, Alkane avoids the need for an electrical transformation module as alleged in Crusoe's claim charts and required by the asserted claims. *Id*. ¶¶25-26.

Conspicuously, Crusoe's claim charts did not attempt to identify a transformer or any equivalent components in the photograph that it relies on to demonstrate the presence of other limitations. ECF Nos. 9-3 at 1(f); 9-4 at 1(e); 28-2 at pp. 95-97 (claim 1(f)). The reason for this is simple, Alkane does not use a transformer or any equivalent component. Woods Dec. ¶26. Because Crusoe could not find a transformer in the photograph, Crusoe instead latched onto clip art (of

power lines) included in Alkane's October 5, 2020 presentation. But the clip art was not intended to demonstrate that Alkane uses a transformer or utility poles (a granular level of detail); it was simply signifying electrical power distribution from an Alkane electrical power generation system to customers via a delivery point. *Id*. ¶21. Because Alkane generates power at a voltage specified by the customer and does not use an "electrical transformation module" to transform "the combined high-voltage electrical output [following the parallel panels (if used)] into a low-voltage electrical output," Alkane does not practice every element of the asserted claims.

3. Crusoe's Patents Will Not Withstand an Invalidity Challenge

Under 35 USC § 102(a)(1) a patent is invalided if "the claimed invention was patented, described in a printed publication, or in public use, on sale, or otherwise available to the public before the effective filing date of the claimed invention." A patent claim is invalid as anticipated under 35 U.S.C. § 102 if every element of the claim is disclosed, expressly or inherently, in a single prior art reference. Even if a patent claim is not anticipated by a single prior art reference, it may still be invalid as obvious if "the differences between the claimed invention and the prior art are such that the claimed invention as a whole would have been obvious before the effective filing date of the claimed invention to a person having ordinary skill in the art." 35 U.S.C. § 103.

Crusoe's complaint and motion attempts to create the impression that it was a novel concept to convert stranded gas into electricity to power cryptocurrency mining when Charles Cavness and Chase Lochmiller had their "lightbulb moment" while hiking in the Rocky Mountains. It was not. Upstream Data Inc. filed a patent application covering "methods and systems of operating a blockchain mining device using natural gas produced at a hydrocarbon production, storage, or processing site/facility" months before the purported hiking trip. Ex. 4

(US2020/0051184A1); Ex. 5 (describing Upstream Data's introduction of the Ohmm Combo mining datacenter in 2017). A number of other companies were also already practicing or promoting the idea prior to the Asserted Patents earliest priority date. Ex. 6 (Iron Chain Technology in early 2018); Ex. 7 (discussed at 2018 NRC-Oil & Gas Committee meeting); Exs. 8-9 (FlarePods by Flare Mining in 2018); Ex. 10 (Tidewater Midstream as of March 2018); Ex. 11 (Pursuant Industries in early 2018); Ex. 12 (Bernstien analysis from 2018).

During prosecution of the '307 Patent, original claim 1 was rejected as being anticipated by U.S. Pat. App. Pub. No. 2020/0051184 ("Barbour") and claims 2-16 were rejected as rendered obvious by Barbour in view of U.S. Pat. App. Pub. No. US 2020/0006938 ("Torvund"). ECF No. 9-5 at 160-169. Crusoe overcame this by revising the claims to recite the use of parallel panels in electrical communication with each of the one or more generators. *Id*. at 99-107, 109. The claims of the '042 Patent—a continuation of the '307 Patent—likewise recite the use of parallel panels in electrical communication with a plurality of power generation modules. ECF 27-10.

The use of multiple generators—as compared to a single generator—is simply a matter of configuring power generation resources to meet electrical demand. Woods Dec. ¶24. It is common practice to utilize multiple generators in parallel and then use a parallel panel to combine and synchronize high voltage electrical outputs of the plurality of generators. *Id*. ¶23. Although far from the only reference teaching such application, WHEN AND HOW TO DESIGN PARALLEL GENERATORS by Richard Vedvik (dated June 21, 2018)[1] ("the Vedvik Article") discloses:

> "Generator sets can be paralleled through traditional switchgear with motor-operated breakers and paralleling logic housed inside the switchgear or in remote cabinets. Another option is to allow the unit-mounted generator controllers to provide paralleling control, which can reduce total system cost. Onboard paralleling

[1] Available at https://www.csemag.com/articles/when-and-how-to-design-parallel-generators/.

> allows the design team to plan for a modular generator system, which can allocate space for several additional generator packages that can be added as the load increases."

Ex. 13. Between Barbour and Torvund, which the examiner already found disclosed or rendered obvious every limitation other than the parallel panel, and the Vedvik Article those of skill in the art would have recognized the claims of the '307 Patent to be obvious.

The original Claims 1-16 of the '309 Patent were similarly rejected as anticipated/or rendered obvious by Barbour or Barbour in view of Torvund. ECF No. 9-6 at 163-172. Crusoe overcame the rejection by adding "the monitoring and control system in communication with the electrical power generation system . . . adapted to monitor the gas profile of the fuel gas . . . ." ECF No. 9-6 at 100-112. Monitoring the gas profile of gas fueled generators was a well-established practice years before 2018 with several companies such as Woodward Inc., Cummins Inc., and ComAp AS selling off-the-shelf controllers. Woods Dec. ¶31. In fact, the very monitoring and control system used by Alkane—which Crusoe identifies as meeting this limitation—predated Crusoe's earliest priority date. *Id*. ¶¶30-31. Once again those of skill in the art would have recognized the claims of the '307 Patent to be obvious.

Even in the absence of Barbour, Truvund and the Vedvik Article, nothing within Crusoe's Asserted Claims was novel. Each of the Asserted Claims simply combine two mature sub-systems: (1) an electrical power generation sub-system and (2) a distributed computing sub-system. It is likely that proceeding to full discovery—including third party discovery—will verify that there were actual field applications as of the priority date that meet all of the claim limitations.

The Asserted Claims are further ineligible for patenting under 35 U.S.C. § 101. *See Alice Corp. Pty. Ltd. v. CLS Bank Int'l*, 573 U.S. 208, 212 (2014) (establishing a two-step

analysis). Under the first step of the *Alice* inquiry (*see*, *id*. at 217), the asserted claims are directed to the unpatentable abstract idea of utilizing stranded gas to power computers. It was this concept of using stranded gas to power computers, rather than any of the physical structure recited in the claims, that provided the supposed inventive feature. *See* ECF No. 9-1 at 2:46-55; *see also ChargePoint, Inc. v. SemaConnect, Inc*., 920 F. 3d 759, 766-70 (Fed. Cir. 2019) (elaborating on when a claim is "directed to" an abstract idea). The Asserted Claims do not effect an improvement in power generation, computer function, or any technology or technical field. Nor is any novel or unique hardware recited in the claims. Rather, all of the components in the claims are generic power transfer, electrical, or computer components. Thus, the claims do not contain an inventive concept sufficient to transform the claimed abstract idea into a patent-eligible application under the second step of the *Alice* inquiry. *Alice*, 573 U.S. at 220-27.

C. Crusoe Cannot Show Irreparable Harm

A temporary restraining order is an extraordinary remedy designed to be used only when the moving party is about to suffer "immediate and irreparable harm." *Drive Sunshine Inst. v. High Performance Transp. Enters.*, No. 13-cv-00844-REB-KMT, 2014 WL 4652020, at *2 (D. Colo. Sept. 19, 2014); *First W. Capital Mgmt. Co. v. Malamed*, 874 F.3d 1136, 1141 (10th Cir. 2017) ("[B]ecause a showing of probable irreparable harm is the *single most important prerequisite* for the issuance of a preliminary injunction, the moving party must first demonstrate that such injury is likely before the other requirements will be considered." (internal quotation marks and citation omitted) (emphasis added)). Not only must the threat of harm be irreparable, it must be "substantial and immediate." *Apple Inc. v. Samsung Elecs. Co., Ltd.*, 695 F.3d 1370, 1374 (Fed. Cir. 2012).

1. Money Damages Are Adequate

It is improper to presume irreparable harm or award equitable relief as a matter of right, even in patent cases. *eBay, Inc. v. MercExchange, LLC*, 547 U.S. 388, 392-94 (2006). "When there is an adequate remedy at law, a preliminary injunction is not appropriate." *Watkins Inc. v. Lewis*, 346 F.3d 841, 844 (8th Cir. 2003) (citation omitted). "The essence of showing irreparable harm is demonstrating an injury that money damages cannot sufficiently remedy." *Voile Mfg. Corp. v. Dandurand*, 551 F. Supp. 2d 1301, 1306 (D. Utah 2008).

Here, the potential harm caused by the alleged infringement can be adequately remedied with monetary damages. *Douglas Dynamics, LLC v. Buyers Prods. Co.*, 717 F.3d 1336 (Fed. Cir. 2013) ("where the damages caused by infringement are 'quantifiable and compensable by an ongoing royalty,' there is no irreparable injury and therefore no need for injunctive relief.") (internal citation omitted). The loss of sales is the quintessential "reparable" injury. *Vascular Sols. LLC v. Medtronic, Inc.*, Case No. 19-CV-1760 (PJS/TNL), 2020 WL 1809195, at *6 (D. Minn. Apr. 9, 2020). Crusoe has made no showing that it cannot be made whole by money damages. Instead, Crusoe's argument centers on that "there is no effective way to measure the loss of sales or potential growth," ECF No. 9 at 22. This is insufficient, as "neither the difficulty of calculating losses in market share, nor speculation that such losses might occur, amount to proof of special circumstances justifying the extraordinary relief of an injunction prior to trial." *McDavid Knee Guard, Inc. v. Nike USA, Inc.*, 683 F. Supp. 2d 740, 748 (N.D. Ill. 2010).

Moreover, after the Colorado Producers reached out to Alkane and made the decision that it preferred Alkane's long term approach of Gas Processing, Alkane offered Crusoe the opportunity to remain on the Colorado wellsites throughout the Gas Processing ramp-up. Woods Dec. ¶13; Blazei Dec. ¶31. Alkane would have been receptive to an arrangement where once the

gas processing operation was running, any excess stranded natural gas could have been made available to Crusoe. Blazei Dec. ¶31. It was Crusoe, not Alkane, that unilaterally ended all discussions and filed this lawsuit. Woods Dec. ¶ 4; Blazei Dec. ¶32. The fact that there was a business arrangement to be had in which Crusoe would have remained on the Colorado Producers wellsite demonstrates Crusoe's harm can be adequately remedied with money damages.

2. Crusoe Cannot Show Loss of Market Share.

The mere probability of losing sales by itself is insufficient to demonstrate irreparable harm. *Abbott Labs. v. Sandoz, Inc.*, 544 F.3d 1341, 1348 (Fed. Cir. 2008). Lost market share must be proven, or at least substantiated, with some evidence. *Automated Merch. Sys., Inc. v. Crane Co.*, 357 Fed. App'x 297, 300-01 (Fed. Cir. 2009); *see also, Open Text, S.A. v. Box, Inc.*, 36 F. Supp. 3d 885, 907 (N.D. Cal. 2014) (finding no irreparable harm where plaintiff failed to establish its actual market share or "even whether the parties meaningfully compete").

Crusoe argues that Alkane's alleged "infringing sale" to the Colorado Producers created direct competition, leading to loss of market share. ECF No. 9 at 18. Notably, Crusoe claims to operate over 100 Digit Flare Mitigation modular data centers and yet is seeking to enjoin Alkane based on the loss of a single contract. Although Crusoe's motion discusses its head-to-head competition with Alkane, this is far from a two player market. There are a number of other companies who are in the business of purchasing stranded natural gas for use in cryptocurrency mining, including Great American Mining, Cathedra, Giga Energy, Puissant, Tidewater Midstream Wampum Mining, TypeX, Verde Fintech, JAI Energy, Musk Miners, Upstream Data, ecopwrs, Ancova, Artemis Energy, Permian Mining, Top Speed Energy, Digital Stream Energy, and CryptoKnight Energy. Blazei Dec. ¶12. Upon information and belief, Crusoe is aware of most

if not all of these companies, and as compared to Alkane, several of these competitors own and are actually utilizing their own power generation equipment to power and operate cryptocurrency mining equipment. *Id*. ¶12. Crusoe has made no effort to enforce its patent against these competitors, but has instead tacitly promoted them at industry events. *Id.* ¶12; Exs. 1-2.

Indeed, Alkane is not in the business of cryptocurrency mining. There is no evidence that stranded natural gas sales made to Alkane (which will ultimately be for a completely different use) come at Crusoe's expense, as it is equally likely that the sale would have been made by another competitor in the market who could pay more for the natural gas. *See Belden Techs., Inc. v. Superior Essex Commc'ns LP*, 802 F. Supp. 2d 555, 577 (D. Del. 2011) ("As plaintiffs and defendants are not the only competitors in this multi-supplier market, defendants' infringement has not necessarily affected plaintiffs' market position.").

3. Crusoe's Loss of Goodwill and Price Erosion Assertions Lack Merit

Even assuming Crusoe demonstrates that it will lose market share of cryptocurrency mining to Alkane, Crusoe cannot show that the alleged price erosion and loss of market share would be so drastic and immediate that it would (1) occur before a trial on the merits could be had, (2) be irreversible, even if Crusoe were enjoined after trial, and (3) not be compensable with money. *See, e.g.*, *McDavid Knee Guard, Inc.*, 683 F. Supp. 2d at 749. "Loss of market share and price erosion are economic harms and are compensable by money damages . . . [even] in the context of generic competition in the . . . industry . . . ." *Graceway Pharm, LLC v. Perrigo Co.*, 722 F. Supp. 2d 566, 577 (D.N.J. 2010).

Crusoe argues it is being forced to compete against Alkane's ability to pay its customers more for stranded natural gas, which will allegedly "cut off Crusoe's ability to recoup its

significant investments in the development of its patented technology." ECF No. 9 at 19. The crux of Crusoe's price erosion allegation is that because Alkane is paying more for the stranded natural gas, Crusoe will be forced to pay "unsustainable rates" for the stranded flare gas "in order to compete, or else be forced out of the market." *Id.* at 20. Crusoe also argues that it has and will continue to lose goodwill each time a customer switches to Alkane "through the promise of more favorable financial terms because those customers will be left with the false impression that Crusoe underpays for stranded flare gas." *Id.* at 20.

In making these arguments, Crusoe attempts to frame Alkane and Crusoe as direct competitors competing for the same use of the same gas, with Alkane infringing Crusoe's patents for its operations. That is not the case. It is Alkane's understanding that the Colorado Producers had concerns regarding the long term viability of Crusoe's proposed business model of using the stranded natural gas to power cryptocurrency mining in part due to the volatility of cryptocurrency pricing. Blazei Dec. ¶ 4. Further, the sole reason Alkane can pay more for the stranded natural gas is because Alkane will ultimately use the stranded natural gas in a different—and more lucrative—way to the benefit of all stakeholders. *Id*. ¶25. Once Alkane recovers NGLs and produces LNG, it turns around and sells it for a higher return per BTU than it would make by using it to fuel electrical power generation systems and distributed computing systems. *Id*. ¶¶25-26. Accordingly, mineral rights holders—such as the Colorado Producers—expect their share of the profits through extracting a higher price for the stranded natural gas. *Id*. ¶25. Crusoe's allegation that Alkane can structure its deals more favorably because "it is a coat-tail rider that copied Crusoe's invention" is simply wrong. ECF 9 at 20.

In truth, Crusoe has not been harmed—its own documents show that it is securing "unicorn" status. ECG 9 at 10. Because Crusoe has offered no evidence about its claimed damages, its argument for irreparable harm rests on nothing more than speculation. *See Abbott Labs*, 544 F.3d at 1347. This Court should find that Crusoe's theory of harm resulting from lost market share and loss of goodwill is insufficient to show irreparable harm.

D. The Balance of Hardships Factor Favors Alkane

Crusoe cannot presume infringement and has failed to demonstrate a likelihood that it will succeed in proving infringement. Nor can Crusoe show that Alkane knowingly "elected" to infringe. Alkane had no knowledge of the Asserted Patent until after it already contracted with the Colorado Producers. Blazei Dec. ¶¶23, 33. Notably, Alkane had been converting stranded natural gas into electrical power for many years before the current dispute. *Id*. ¶¶5-8. Further, "[t]he hardship on [an] enjoined manufacturer who must withdraw its product from the market before trial can be devastating." *Ill. Tool Works, Inc. v. Grip-Pak, Inc.*, 906 F.2d 679, 683 (Fed. Cir. 1990). In this case, Crusoe essentially seeks to shut down a competitor based on mere guesses that Alkane infringes. Crusoe's guesswork is unsubstantiated.

If Crusoe's requested relief were granted, Alkane, the significantly smaller of the two entities, will face dire economic consequences. *See Presidio Components, Inc. v. Am. Tech. Ceramics Corp.*, No. 14-CV-02061-H-BGS, 2018 WL 9903323, at *10 (S.D. Cal. Aug. 13, 2018), *aff'd,* 784 F. App'x 786 (Fed. Cir. 2019) ("'[T]he parties' sizes, products, and revenue sources' are also relevant factors for balancing the hardships.") (quoting *i4i Ltd. P'ship v. Microsoft Corp.*, 598 F.3d 831, 862 (Fed. Cir. 2010)). Alkane is at a critical point in its business development as it is actively seeking new funding from investors. Blazei Dec. ¶34. The entering of a temporary

restraining order will hinder that process. *Id*. ¶34. Crusoe's requested relief is to enjoin Alkane everywhere and is not is not limited to the Colorado Producer's contract or the Colorado wellsite. ECF 9-18. This will effectively take Alkane out of the market across the nation. Blazei Dec. ¶35.

Additionally, Alkane has already taken steps in its performance of its contract with the Colorado Producers and spent a significant amount of its limited capital ordering equipment for such performance. *Id*. ¶37. An injunction would also cause catastrophic harm to Alkane by preventing it from operating under its contract with the Colorado Producers. *Id*. ¶39. As part of its contract with the Colorado Producers, Alkane is on the hook to mitigate the Colorado Producers' stranded natural gas and the Colorado Producers are reliant on Alkane to manage the stranded natural gas so that it can fully carry out their oil-drilling and production operations. *Id*. ¶38. Overall, Crusoe's requested relief puts Alkane in a potential breach and jeopardizes Alkane's entire business relationship with the Colorado Producers. *Id*. ¶39.

In contrast, the harms about which Crusoe complains could be remedied through monetary damages, *if* Crusoe is ultimately able to prove its case through the normal litigation procedures. Furthermore, Crusoe, a substantially larger entity with supposedly over $750 million in investor funding, will not be adversely impacted by the denial of the temporary restraining order.

E. <u>The Public Interest Favors Denying the Injunction</u>

Alkane recognizes that there is a general public interest in the protection of valid and enforceable patent rights. Both the Federal Circuit and the Supreme Court have also recognized that there is a significant public policy interest in challenging invalid patents and removing them from the public arena. *SmithKline Beecham Corp. v. Apotex Corp.*, 403 F.3d 1331, 1354 (Fed. Cir. 2005); *Pope Mfg. Co. v. Gormully*, 144 U.S. 224, 234 (1892) ("It is as important to the public that

competition should not be repressed by worthless patents, as that the patentee of a really valuable invention should be protected in his monopoly . . . ."). Proper patent protection is a limited monopoly granted by the government. It should never be overextended or allowed to be abused.

Crusoe has failed to make a clear showing of the likelihood of success on its claim that the patents are valid and infringed. "As a result, the Court [should] find[] that the public interest in the enforcement of valid patents does not trump the public interest in competition." *Cummins-Allison Corp. v. Glory Ltd.*, No. 02 C 7008, 2003 WL 355470, at *52 (N.D. Ill. Feb. 12, 2003), *report and recommendation adopted,* No. CIV.A. 02 C 7008, 2003 WL 22125212 (N.D. Ill. Sept. 5, 2003). Because there are significant questions regarding the validity of Crusoe's patents, the public interest is best served by denying Crusoe's motion for a temporary restraining order.

Furthermore, Alkane is not the only entity that will suffer economic consequences if enjoined. The Colorado Producers will also be significantly harmed. The Colorado Producers are relying on Alkane to provide beneficial uses of the stranded natural gas resulting from the oil extraction process. Blazei Dec. ¶¶30, 38. Without Alkane's installation of the electric power generation systems and a third-party capable of consuming the electricity, the Colorado Producers will be unable to extract its desired quantity of oil. *Id*. ¶30. The Colorado Producers' production of oil and any profits will be put at risk if Alkane is enjoined.

The public interest is also best served by maintaining the status quo until the validity of Crusoe's patents can be determined. "It is well-settled that the primary goal of a preliminary injunction is to preserve the pretrial status quo." *Mullenix v. LaPlante*, No. 21-CV-01670-NYW, 2021 WL 5102741, at *2 (D. Colo. Oct. 13, 2021) (citing *RoDa Drilling Co. v. Siegal*, 552 F.3d 1203, 1208 (10th Cir. 2009)). Issuing a temporary restraining order here would

destroy, rather than preserve, the status quo. The status quo, is clear: (1) Crusoe has no current contractual relationship with the Colorado Producers, whereas (2) Alkane is contracted to manage its the Colorado Producers stranded natural gas.

Crusoe is attempting to use this Court's power to recreate a business relationship that Crusoe lost due to the Colorado Producers' choosing to go with a different long term solution to the management of its stranded natural gas than what Crusoe was offering. But even if Alkane is enjoined, there is no guarantee that the Colorado Producers would willing reinitiate a business relationship with Crusoe. As Crusoe's motion seeks to upend the status quo, rather than preserve it, it is contrary to the very purpose of a temporary restraining order and must be denied.

III. THE REQUESTED RELIEF IS OVERLY INCLUSIVE

Crusoe seeks to broadly preclude Alkane from selling any "systems . . . that are capable of using natural gas to power distributed computing systems." ECF 9-18. Such relief far exceeds the scope of the patent protection claimed by the '307 and '309 Patents. Powering a distributed computing systems is merely a use of electricity. As such, Crusoe's requested relief would effectively bar Alkane from using, manufacturing, selling, offering for sale, or importing *any* generator capable of consuming natural gas to generate electricity.

IV. THE SUGGESTED BOND AMOUNT IS WOEFULLY INADEQUATE

Crusoe wrongly suggests a $5,000 bond would sufficient. ECF 9 at 19. If the Court enjoins Alkane, it should require a $5 million bond. This is the amount of expected profits Alkane will lose from the initial term of its contract with the Colorado Producers. Blazei Dec. ¶¶36-37.

Respectfully submitted this 7th day of September, 2022.

s/ *Ryan M. Sugden*
Ryan M. Sugden
STINSON LLP
1144 Fifteenth St., Suite 2400
Denver, Colorado 80202
Phone: 303.376.8405
Fax No.: 303.578.7985
Email: ryan.sugden@stinson.com

Attorneys for Defendant Alkane Midstream LLC