

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

**Applicant:** Crusoe Energy Systems Inc.      **Art Unit:** 2836  
**Serial No.:** 16/529,152                      **Examiner:** AMAYA, CARLOS DAVID  
**Filed:** 2019-08-01                          **Conf. No.:** 9940  
**Title:** Systems and Methods for Generating and Consuming Power from Natural Gas

**RESPONSE TO NON-FINAL OFFICE ACTION**

**Electronically Filed**  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

In response to the Non-Final Office Action having a Notification Date of May 7, 2020, Applicant requests consideration of the following amendments and remarks.

**Amendments to the Specification** begin on page **2**

**Amendments to the Claims** are reflected in the listing of claims beginning on page **4**.

**Remarks** begin on page **13** of this paper.

### AMENDMENTS TO THE SPECIFICATION

Please replace paragraph [0131] of the specification with the following amended paragraph:

**[0131]** In one embodiment, the electrical power system 530 ~~of a~~ may comprise one or more breaker panels in electrical communication with a series of power distribution units (“PDUs”) or power channels. Such PDUs may also be in communication with the various electrical components of the mobile data center 510, such as DCUs 520, backup power systems 540 (e.g., batteries and/or solar panels), a communication system 555, and/or a monitoring and control system 580.

Please also replace paragraph [0141] of the specification with the following amended paragraph:

**[0141]** It will be appreciated that the mobile data center 510 may be further designed with various safety and security features specific to oilfield operations. For example, the mobile data center 510 may comprise one or more wireless cameras controlled by the monitoring and control system 580 and powered by the power system 530 and/or the backup power system 540. Such cameras may be specified for continuous remote monitoring and/or motion-activated recording. As another example, the mobile data center 510 ~~may comprise~~ may comprise motion activated lighting systems that serve as an additional crime deterrent and/or that may provide sufficient light to facilitate work during nighttime operations.

And please replace paragraph [0165] of the specification with the following amended paragraph:

**[0165]** The output electrical flow was then distributed to an electrical power system of a single 20’ by 8’ by 9.5’ mobile data center, which employed power channels (rather than PDUs to support 264 ~~DSUs-DCUs~~ DCUs). For ventilation, the mobile data center utilized natural aspiration via direct exhaust of DCUs to the container’s exterior. Specifically, the mobile data center included a pair of awnings and protective walls extending from the air intake (a wall of metal gridding and filtration material on one long axis), as well as the air exhaust wall (a metal grid against which DCU exhaust fans were mounted directly on the other long axis).

The above paragraphs are amended herein to correct typographical errors and Applicant respectfully submits that no new matter has been added. Applicant has attached a Substitute Specification showing the above changes relative to the immediate prior version of the

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specification of record as required by 37 CFR § 1.125(c). Additionally, Applicant has attached a “clean” copy of the Substitute Specification for the Examiner’s convenience.

## AMENDMENTS TO THE CLAIMS

The following listing of claims will replace all prior versions and listings of claims in this application.

### Listing of Claims:

1. (Currently Amended) A flare mitigation system comprising:

an electrical power generation system comprising:

a 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 ~~power generation module-parallel panel~~, the electrical transformation module adapted to:

receive the combined high-voltage electrical output ~~generated by the power generation module~~; 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 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.

2. (Currently Amended) A system according to claim 1, wherein:

at least one of the power generation modules comprises an engine-type generator;

the high-voltage electrical output generated by the engine-type generator is from about 70 kW to about 2 MW; and

the first voltage is from about 480 V to about 4.16 kV.

3. (Original) A system according to claim 2, wherein the second voltage is from about 208 V to about 240 V.

4. (Currently Amended) A system according to claim 3, wherein:

the high-voltage electrical output generated by the engine-type generator is from about 300 kW to about 400 kW;

the first voltage is about 480 V;

the enclosure of the first mobile data center comprises:

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