UNITED STATES DISTRICT COURT
WESTERN DISTRICT OF TEXAS
WACO DIVISION

CYBOENERGY, INC., **Plaintiff,** **v.** **APTOS SOLAR TECHNOLOGY LLC,** **Defendant.**	**Case No. 6:22-cv-00281-ADA** **JURY TRIAL DEMANDED**

PLAINTIFF'S ORIGINAL COMPLAINT FOR PATENT INFRINGEMENT

CyboEnergy, Inc. ("CyboEnergy") files this Original Complaint and demand for jury trial seeking relief from patent infringement of the claims of U.S. Patent Nos. 8,786,133 ("the '133 patent") and 9,331,489 ("the '489 patent") (referred to as the "Patents-in-Suit") by Aptos Solar Technology LLC ("Aptos").

I. THE PARTIES

1. Plaintiff CyboEnergy is a Delaware Corporation with its principal place of business located in Sacramento County, California.

2. On information and belief, Aptos is a limited liability company existing under the laws of California with a regular and established place of business located at 9901 IH-10 W, Suite 800, San Antonio, TX 78230. On information and belief, Aptos sells and offers to sell products and services throughout Texas, including in this judicial district, and introduces products and services that perform infringing methods or processes into the stream of commerce knowing that they would be sold in Texas and this judicial district. Defendant may be served through its registered agent, HONGWOOK KIM, 17806 W IH-10, Suite 300 San Antonio, TX

78257, or wherever they may be found.

II. JURISDICTION AND VENUE

3. This Court has original subject-matter jurisdiction over the entire action pursuant to 28 U.S.C. §§ 1331 and 1338(a) because Plaintiff's claim arises under an Act of Congress relating to patents, namely, 35 U.S.C. § 271.

4. This Court has personal jurisdiction over Defendant because: (i) Defendant is present within or has minimum contacts within the State of Texas and this judicial district; (ii) Defendant has purposefully availed itself of the privileges of conducting business in the State of Texas and in this judicial district; and (iii) Plaintiff's cause of action arises directly from Defendant's business contacts and other activities in the State of Texas and in this judicial district.

5. Venue is proper in this district under 28 U.S.C. §§ 1391(b) and 1400(b). Defendant has committed acts of infringement and has a regular and established place of business in this District. Further, venue is proper because Defendant conducts substantial business in this forum, directly or through intermediaries, including: (i) at least a portion of the infringements alleged herein; and (ii) regularly doing or soliciting business, engaging in other persistent courses of conduct and/or deriving substantial revenue from goods and services provided to individuals in Texas and this District.

III. INFRINGEMENT

A. Infringement of the '133 Patent

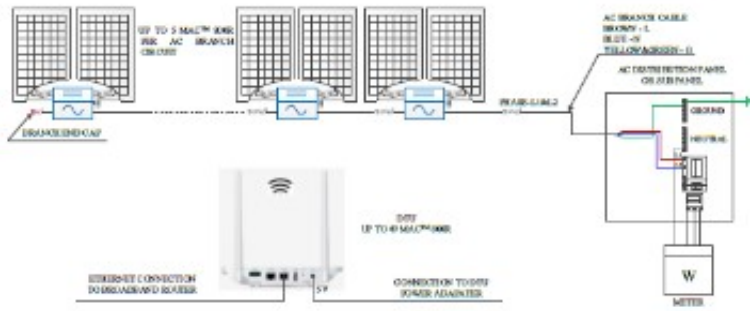
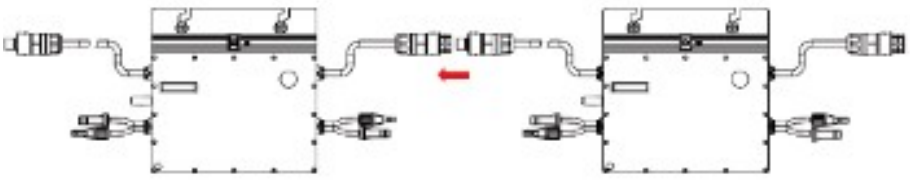
6. On July 22, 2014, U.S. Patent No. 8,786,133 ("the '133 patent") entitled "Smart and Scalable Power Inverters" was duly and legally issued by the U.S. Patent and Trademark Office. CyboEnergy owns the '133 patent by assignment.

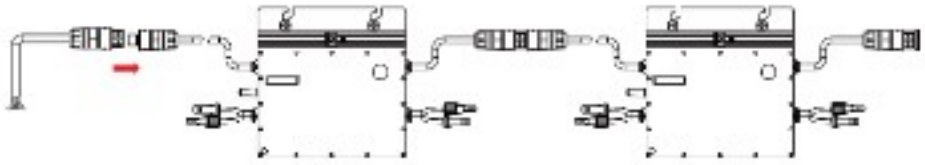
7. The '133 patent relates to novel and improved power inverters.

8. APTOS maintains, operates, manufactures, offers for sale and sells power inverters that infringe one or more claims of the '133 patent, including one or more of claims 1-24, literally or under the doctrine of equivalents. Defendant put the inventions claimed by the '133 Patent into service (i.e., used them); but for Defendant's actions, the claimed-inventions embodiments involving Defendant's products and services would never have been put into service. Defendant's acts complained of herein caused those claimed-invention embodiments as a whole to perform, and Defendant's procurement of monetary and commercial benefit from it.

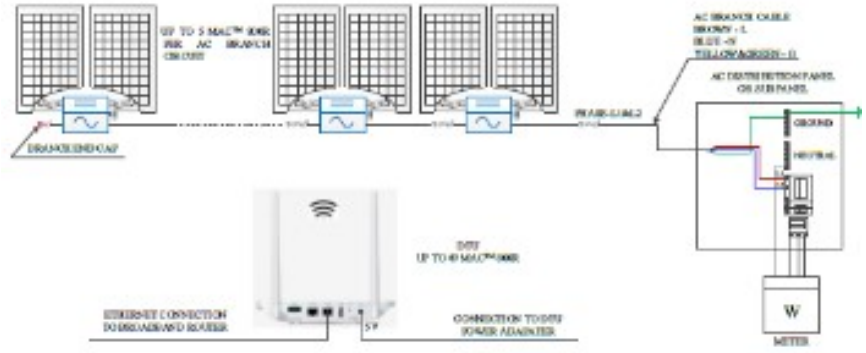
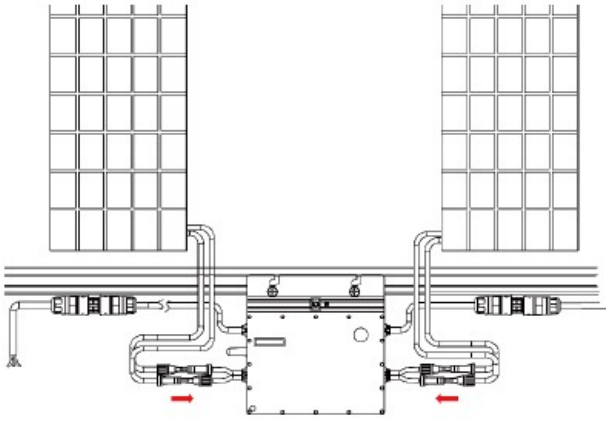
9. Support for the allegations of infringement may be found in the following preliminary table:

Independent Claim	**Aptos MAC 800R Inverters**
15. A scalable DC to AC power inversion system for providing AC power to a power grid from a plurality of individual DC power sources each having a DC power output port, comprising:	Aptos Solar Technology LLC and its affiliate companies (Aptos) manufacture and sell solar inverters that are used in DC to AC power inversion systems. The infringing Aptos inverters include MAC 800R microinverters as shown below. [1] [2]  A DC to AC power inversion system enabled by MAC 800R is scalable as illustrated in its Aptos MAC 800R Microinverter User Manual [2] as shown below, where a plurality of individual DC power sources (solar panels) each having a DC power output port. The following diagram also shows that the system provides power to a power grid.

	
a) a plurality of power inverters, each of said power inverters including a single DC-AC inverter, at least two DC power input ports coupled to the single DC-AC inverter, an AC power input port, and an AC power output port coupled to the single DC-AC inverter, each of said DC power input ports having one DC power source connected thereto;	A DC to AC power inversion system enabled by Aptos MAC 800R inverters has a plurality of power inverters as shown in the diagram above [2]. Ref [2] shows that each MAC 800R inverter has a single DC-AC inverter, at least two DC power input ports coupled to the single DC-AC inverter, an AC power input port, and an AC power output port coupled to the single DC-AC inverter, each of said DC power input ports having one DC power source connected thereto. See marked words in the Aptos MAC 800R image below. 
b) said AC power output port of each power inverter being connected in a daisy chain to the AC power input port of the next power inverter, except for the AC power input port of the first power inverter being left open, and the AC power output port of the last power inverter being connected to a power service panel of the power grid;	In Aptos MAC 800R Microinverter User Manual [2], its step 2 teaches how to connect multiple MAC 800R inverters together in a daisy chain with AC wires and connectors in the following: ***Step 2. Connect AC Cables of Microinverter*** *A)Plug the AC connector of the first microinverter with the connector of the second microinverter to form a continuous AC branch circuit.* The following diagrams from [2] show how to connect multiple MAC 800R inverters in a daisy-chain, and the AC power output port of the last power inverter being connected to a power service panel of the power grid. 

	 C) Connect the other side of the AC end cable to the distribution box and wire it to the local grid network.
c) whereby said system is incrementally scalable by adding or subtracting DC power sources and daisy-chained inverters.	On page 2 of Aptos MAC 800R product sheet [1], it lists the maximum number of Units Per Branch is 4 or 5, which implies that the system is incrementally scalable by adding or subtracting DC power sources and inverters.  Output Data (AC) Peak output power(VA) 800 Maximum continuous output power(VA) 766 Maximum units per branch[2] 5/4

Independent Claim	**Aptos MAC 800R Inverters**
19. A method of making a DC to AC power conversion system incrementally scalable, comprising:	Aptos Solar Technology LLC and its affiliate companies (Aptos) manufacture and sell solar inverters that are used in DC to AC power conversion systems. The infringing Aptos inverters include MAC 800R microinverters as shown below. [1] [2]  A DC to AC power conversion system enabled by Aptos MAC 800R is incrementally scalable as illustrated in its MAC 800R Microinverter User Manual [2] as shown below, where the system includes multiple inverters and multiple solar panels (DC sources).

	
a) providing a plurality of DC power sources and a plurality of DC to AC power inverters, said DC to AC power inverters each having a single DC-AC inverter, an AC input port coupled to the single DC-AC inverter, an AC output port coupled to the single DC-AC inverter, and at least two DC input ports coupled to the single DC-AC inverter;	A DC to AC power conversion system enabled by Aptos MAC 800R inverters has a plurality of DC to AC power inverters. The above diagram in [2] shows a plurality of DC power sources (solar panels) and a plurality of DC to AC power inverters (Aptos inverters). Aptos MAC 800R Microinverter User Manual [2] shows that each MAC 800R inverter has a single DC-AC inverter, an AC input port coupled to the single DC-AC inverter, an AC output port coupled to the single DC-AC inverter, and at least two DC input ports coupled to the single DC-AC inverter. See marked words in the MAC 800R inverter image below. 
b) connecting at least one of said DC power sources, respectively, to each of said DC input ports; and	In Aptos MAC 800R Microinverter User Manual [2], its step 5 teaches how to connect PV Modules (DC power source) to each of the DC input ports as shown below. 

c) providing AC power to the power grid.	In Aptos MAC 800R Microinverter User Manual [2], its Step 6 *Energize the System says:* *A) Turn on the AC breaker of the branch circuit. B) Turn on the main AC breaker of the house. Your system will start to generate power after about a 2-minute wait time.* This means the DC to AC power conversion system enabled by Aptos MAC 800R inverters provides AC power to the power grid.

These allegations of infringement are preliminary and are therefore subject to change.

10. Defendant has and continues to induce infringement. Defendant has actively encouraged or instructed others (e.g., its customers and/or the customers of its related companies), and continues to do so, on how to use its products and services, such as through the information and support Defendant provides its users, including product manuals, brochures, videos, demonstrations, and website materials encouraging its users to purchase and instructing them to use Defendant's Accused Products/Systems (e.g., power inverters) such as to cause infringement of one or more of claims 1-24 of the '133 patent, literally or under the doctrine of equivalents. Moreover, Defendant has known of the '133 patent and the technology underlying it from at least the filing date of the lawsuit.[1] For clarity, direct infringement is previously alleged in this complaint.

11. Defendant has and continues to contributorily infringe. Defendant has actively encouraged or instructed others (e.g., its customers and/or the customers of its related companies), and continues to do so, on how to use its products and services, such as through the information and support Defendant provides its users, including product manuals, brochures, videos, demonstrations, and website materials encouraging its users to purchase and instructing them to use Defendant's Accused Products/Systems (e.g., power inverters) and related services

[1] Plaintiff reserves the right to amend if discovery reveals an earlier date of knowledge.

such as to cause infringement of one or more of claims 1-24 of the '133 patent, literally or under the doctrine of equivalents. Further, there are no substantial noninfringing uses for Defendant's products and services and the component is a material part of the invention. Moreover, Defendant has known of the '133 patent and the technology underlying it from at least the filing date of the lawsuit.[2] For clarity, direct infringement is previously alleged in this complaint.

12. APTOS has caused and will continue to cause CyboEnergy damage by direct and indirect infringement of (including inducing infringement of) the claims of the '133 patent.

B. Infringement of the '489 Patent

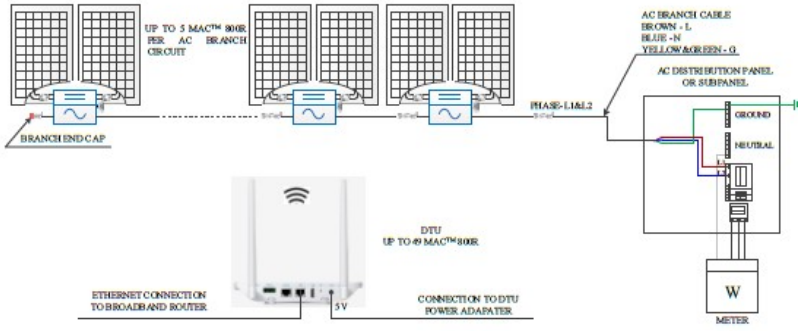
13. On May 3, 2016, U.S. Patent No. 9,331,489 ("the '489 patent") entitled "Maximizing Power Production at Low Sunlight by Solar Power Mini-Inverters" was duly and legally issued by the U.S. Patent and Trademark Office. CyboEnergy owns the '489 patent by assignment.

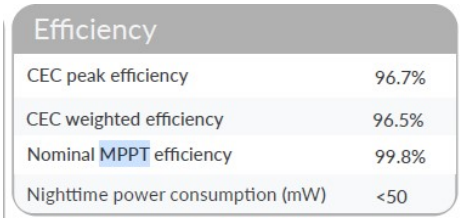
14. The '489 patent relates to novel and improved power inverters.

15. APTOS maintains, operates, manufactures, offers for sale and sells power inverters that infringe one or more claims of the '489 patent, including one or more of claims 1-16, literally or under the doctrine of equivalents. Defendant put the inventions claimed by the '489 Patent into service (i.e., used them); but for Defendant's actions, the claimed-inventions embodiments involving Defendant's products and services would never have been put into service. Defendant's acts complained of herein caused those claimed-invention embodiments as a whole to perform, and Defendant's procurement of monetary and commercial benefit from it.

16. Support for the allegations of infringement may be found in the following preliminary table:

[2] Plaintiff reserves the right to amend if discovery reveals an earlier date of knowledge.

Independent Claim	Aptos MAC 800R Inverters
14. An m-channel solar power inverter, comprising: a) at least two DC input channels, each of which comprises a DC-DC boost converter, measurement circuits, supporting circuits, and cables and connectors to connect to a solar panel;	Aptos Solar Technology LLC and its affiliate companies (Aptos) manufacture and sell solar power inverters. The infringing Aptos inverters include MAC 800R microinverters as shown below. [1] [2]  Aptos MAC 800R Microinverter User Manual [2] shows that each MAC 800R inverter has at least two DC input channels (DC input ports), cables and connectors to connect to a solar panel. See marked words in the MAC 800R inverter image below. Since each DC input channel in the Aptos inverter needs to receive DC power from the solar panel, it must include a DC converter or DC boost converter, measurement circuits, and supporting circuits. 
b) an AC power output port arranged to supply AC power to an electric grid;	Each Aptos inverter has an AC power output port arranged to supply AC power to an electric grid as shown in Ref [2]. 
c) a DC power combiner connected to said DC-DC boost converters for combining the DC output from all DC-DC boost converters;	Since the Aptos inverter has one AC output port to send the power to the grid, it must have a DC power combiner to be connected to the DC-DC boost converters for combining the DC output from all DC-DC boost converters.

d) a digital microcontroller connected to said DC-DC boost converters, arranged to measure input voltage and current to calculate DC input power for each channel, and constructed to run the power inverter in normal or low power mode based on calculated DC input power;	From Ref [1][2], the Aptos inverters have features such as MPPT (Maximum Power Point Tracking) to deal with solar panel partial shading problems.  In order to perform MPPT, a digital microcontroller is a necessary component. The microcontroller will have to connect to the DC-DC boost converters, arranged to measure input voltage and current to calculate DC input power for each channel in order to achieve the MPPT (Maximum Power Point Tracking).
e) a DC power supply connected to all input channels through the DC power combiner, arranged to supply DC power to electronic circuits of the power inverter, and configured to take DC power from a dedicated input channel and its connected solar panel when the digital microcontroller detects that the calculated input power is below a pre-determined value.	Since the Aptos microinverter requires DC power to run its electronics, it will have to include a DC power supply connected to all input channels through the DC power combiner, arranged to supply DC power to electronic circuits of the Aptos inverter.

[1] Aptos MAC 800R Microinverter Data Sheet

https://www.aptossolar.com/wp-content/uploads/2021/09/MAC800R_DataSheet.pdf

[2] Aptos MAC 800R Microinverter User Manual

https://www.aptossolar.com/wp-content/uploads/2021/12/User-Manual-2-IN-1.pdf

These allegations of infringement are preliminary and are therefore subject to change.

17. Defendant has and continues to induce infringement. Defendant has actively encouraged or instructed others (e.g., its customers and/or the customers of its related companies), and continues to do so, on how to use its products and services, such as through the information and support Defendant provides its users, including product manuals, brochures, videos, demonstrations, and website materials encouraging its users to purchase and instructing

them to use Defendant's Accused Products/Systems (e.g., power inverters) such as to cause infringement of one or more of claims 1-16 of the '489 patent, literally or under the doctrine of equivalents. Moreover, Defendant has known of the '489 patent and the technology underlying it from at least the filing date of the lawsuit.[3] For clarity, direct infringement is previously alleged in this complaint.

18. Defendant has and continues to contributorily infringe. Defendant has actively encouraged or instructed others (e.g., its customers and/or the customers of its related companies), and continues to do so, on how to use its products and services, such as through the information and support Defendant provides its users, including product manuals, brochures, videos, demonstrations, and website materials encouraging its users to purchase and instructing them to use Defendant's Accused Products/Systems (e.g., power inverters) and related services such as to cause infringement of one or more of claims 1-16 of the '489 patent, literally or under the doctrine of equivalents. Further, there are no substantial noninfringing uses for Defendant's products and services and the component is a material part of the invention. Moreover, Defendant has known of the '489 patent and the technology underlying it from at least the filing date of the lawsuit. [4] For clarity, direct infringement is previously alleged in this complaint.

19. APTOS has caused and will continue to cause CyboEnergy damage by direct and indirect infringement of (including inducing infringement of) the claims of the '489 patent.

IV. PRAYER FOR RELIEF

WHEREFORE, CyboEnergy prays for relief as follows:

a. enter judgment that Defendant has infringed the claims of the Patents-in-Suit;

b. award CyboEnergy damages in an amount sufficient to compensate it for

[3] Plaintiff reserves the right to amend if discovery reveals an earlier date of knowledge.
[4] Plaintiff reserves the right to amend if discovery reveals an earlier date of knowledge.

Defendant's infringement of the Patents-in-Suit in an amount no less than a reasonable royalty or lost profits, together with pre-judgment and post-judgment interest and costs under 35 U.S.C. § 284;

c. award CyboEnergy an accounting for acts of infringement not presented at trial and an award by the Court of additional damage for any such acts of infringement;

d. declare this case to be "exceptional" under 35 U.S.C. § 285 and award CyboEnergy its attorneys' fees, expenses, and costs incurred in this action;

e. declare Defendant's infringement to be willful and treble the damages, including attorneys' fees, expenses, and costs incurred in this action and an increase in the damage award pursuant to 35 U.S.C. § 284;

f. a decree addressing future infringement that either (i) awards a permanent injunction enjoining Defendant and its agents, servants, employees, affiliates, divisions, and subsidiaries, and those in association with Defendant from infringing the claims of the Patents-in-Suit, or (ii) awards damages for future infringement in lieu of an injunction in an amount consistent with the fact that for future infringement the Defendant will be an adjudicated infringer of a valid patent, and trebles that amount in view of the fact that the future infringement will be willful as a matter of law; and

g. award CyboEnergy such other and further relief as this Court deems just and proper.

Respectfully submitted,

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