

**Amendment to Measurement, Verification Agreement
and Savings Guarantee Agreement No. 111-010**

This Amendment to Measurement, Verification Agreement and Savings Guarantee Agreement No. 111-010 is entered into as of 4/11/2017 2017, by and between Ameresco, Inc., a Delaware corporation, with an address of 60 E. Rio Salado Parkway, Suite 1001, Tempe, AZ 85281, successor in interest to APS Energy Services, Inc. (together with its successors and assigns, "Ameresco") and Lake Havasu City, an Arizona municipality with an address of 2330 McCulloch Blvd. North, Lake Havasu City, Arizona 86403 (together with its successors and assigns, the "Owner").

WHEREAS, Owner owns, operates and maintains a solar thermal system with an installed capacity of approximately 2,598 MMBtu (the "Solar Thermal System") on property owned by the Owner, known as the Lake Havasu City Aquatic Center and located at 100 Park Avenue, Lake Havasu City, Arizona 86403 (the "Site");

WHEREAS, Owner and Ameresco are parties to that certain agreement, dated May 19, 2011, and entitled Measurement, Verification Agreement and Savings Guarantee Agreement No. 111-010 (the "Original M&V Agreement");

WHEREAS, prior to the date hereof, Ameresco installed certain energy conservation measures (each, an "ECM" and collectively, the "ECMs") at properties owned by the Owner, including the Solar Thermal System, and under the terms of the Original M&V Agreement, Owner is responsible for operating and maintaining all of such ECMs, including, without limitation, the Solar Thermal System;

WHEREAS, a savings shortfall under the Original M&V Agreement has occurred with respect to the Solar Thermal System;

WHEREAS, Owner and Ameresco have agreed that, in lieu of replacing the ECM which is causing the savings shortfall, as contemplated by Section 11.1.1 of the Original M&V Agreement, or paying a shortfall payment, as provided in Section 11.1.3 of the Original M&V Agreement, Ameresco will (i) replace an existing boiler located at the Site and (ii) undertake certain operations and maintenance functions with respect to the Solar Thermal System which were previously performed by Owner under the terms of the Original M&V Agreement;

WHEREAS, the parties have entered into that certain Solar Thermal Facility Operation and Maintenance Agreement dated on or about the date hereof to document Ameresco's new operation and maintenance obligations with respect to the Solar Thermal System (the "O&M Agreement"); and

WHEREAS, the parties wish to amend the Original M&V Agreement to reflect such boiler replacement and the change in the parties' operations and maintenance obligations as described herein and in the O&M Agreement.

NOW THEREFORE, for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, and intending to be legally bound hereby, the parties hereto have agreed as follows:

1. Boiler Replacement.

- a. Ameresco shall replace the Camus boiler which has previously been removed from the Site with a Thermal Solutions 2000 MBH Condensing Boiler (the "Replacement Boiler") as more particularly provided in Attachment A hereto (the "Boiler Scope"). Upon installation and final acceptance as provided in Section 1.e. below, the Replacement Boiler shall be deemed an "ECM" for all purposes under the Original M&V Agreement, including, without limitation, with respect to the Owner's maintenance and operation obligations under the terms of the Original M&V Agreement. The Boiler Scope shall be performed in a good and workmanlike fashion and in accordance with all applicable laws, rules, codes and regulations. Owner and Ameresco shall mutually plan the scheduling of such work.

- b. Ameresco, at its cost, shall be responsible for disposal of all non-hazardous equipment and materials which are removed in the course of the performance of the Boiler Scope. All hazardous materials shall remain the sole responsibility of Owner and Ameresco shall assume no liability whatsoever in connection with their removal, transportation and disposal.
- c. Ameresco shall not be responsible for performing any asbestos or lead paint abatement or taking any other action with respect to asbestos or lead paint. Owner hereby represents and warrants to Ameresco that, to the best of its knowledge and belief, there is no lead paint or asbestos in any area wherein Ameresco will be performing the Boiler Scope. If Ameresco: (A) encounters any friable or non-friable asbestos which is in the immediate vicinity of its work, (B) determines that its work will result in the disturbance of asbestos material, or (C) determines that the presence of asbestos material will impede its work, Ameresco will notify Owner of the same and Owner will, at Owner's sole cost and expense, cause the asbestos to be promptly and properly removed, enclosed, encapsulated or otherwise abated in accordance with all applicable laws, regulations and guidelines, or alternatively, Owner, at its sole cost and expense, may provide written test reports showing that asbestos in such area has been properly removed, enclosed encapsulated or otherwise abated in accordance with all applicable laws. In the event that Ameresco cannot determine whether any particular material does or does not contain asbestos, Owner, upon Ameresco's written request, shall, at Owner's sole cost and expense, promptly perform tests or cause tests to be performed in order to determine whether or not such material contains asbestos and/or whether there are unacceptable levels of airborne particulate material containing asbestos and provide such test reports to Ameresco.

If Ameresco encounters lead paint or paint suspected to contain lead in any area where it is to perform services hereunder, Ameresco will notify Owner of the same and Owner shall, at Owner's sole cost and expense, promptly perform tests or cause tests to be performed in order to determine whether or not such paint contains lead, and will provide such test reports to Ameresco. In the event that such test reports demonstrate the presence of lead paint or Ameresco reasonably believes that performing its services under this Agreement is likely to cause the disturbance of lead paint in such a manner as to require Ameresco to provide any notification or take any actions pursuant to any federal, state or local laws, rules, regulations or guidelines and Ameresco notifies Owner of the same, Owner will, in either case, at its sole cost and expense, cause the lead paint to be promptly and properly removed, or otherwise abated in accordance with all applicable laws and regulations.

If the presence of lead paint or asbestos materially affects progress of the Boiler Scope, Ameresco, at its option, may demobilize and cease construction in the area affected by the presence of such lead paint or asbestos until such time as Owner performs the actions required to be performed by Owner as provided herein. In the event that Owner does not promptly take action, as provided herein, or notifies Ameresco that it will not take such action, Ameresco may, at its option, either remove the affected area from the Boiler Scope (and make commensurate adjustments to the rights and obligations of the Parties hereunder) or terminate this Agreement in its entirety. Owner shall be responsible for all costs (including termination) incurred by Ameresco that relate to the presence of asbestos or lead paint.

- d. Upon Substantial Completion of the Boiler Scope, Ameresco will deliver to Owner a substantial completion certificate (the "Substantial Completion Certificate"). Owner shall complete, execute and deliver to Ameresco such Substantial Completion Certificate within five (5) business days after receipt thereof. A delivery and acceptance certificate (the "Final Delivery and Acceptance Certificate") shall be executed by Owner and delivered to Ameresco within five (5) business days after the completion of any agreed-upon punchlist items related to the Boiler Scope. Owner shall not unreasonably withhold, condition or delay the execution

and delivery of any Substantial Completion Certificate or the Final Delivery and Acceptance Certificate. As used in this Agreement, the term "Substantial Completion" shall mean that the Replacement Boiler has been installed by Ameresco, and is then operating in a manner such that Owner is deriving beneficial use thereof. Title to and all risk of loss with respect to the Replacement Boiler and any other appurtenant materials and equipment installed as part of the Boiler Scope shall pass to Owner upon Substantial Completion.

- e. Owner shall provide Ameresco, its employees, agents and subcontractors access to the Site at all times and from time to time for the purpose of fulfilling Ameresco's obligations under this Agreement. Owner shall provide mutually satisfactory rent-free space for the installation and operation of the Replacement Boiler and related equipment and shall protect such equipment in the same careful manner that Owner protects its own property.

2. **Operations and Maintenance.** From and after the effective date of the O&M Agreement, Ameresco shall perform the operations and maintenance obligations with respect to the Solar Thermal System set forth in the O&M Agreement, subject to and in accordance with the terms and conditions of the O&M Agreement. Owner shall no longer be obligated under the terms of the Original M&V Agreement to provide such operations and maintenance with respect to the Solar Thermal System being provided by Ameresco under the O&M Agreement; provided, however, that Owner shall continue to be obligated to provide all other operations and maintenance obligations required under the terms of the Original M&V Agreement with respect to all other ECMs, including, without limitation, with respect to the Replacement Boiler and all related equipment, to the extent not expressly assumed by Ameresco with respect to the Solar Thermal System under the terms of the O&M Agreement.
3. **Warranty.** Ameresco warrants that the Boiler Scope will be performed consistent with good engineering practices and that such work is warranted to be free from defects in materials and workmanship for a period of one (1) year from the date of execution of a Substantial Completion Certificate by Owner for such work. Any manufacturers' warranties which exceed this one (1) year period shall be assigned to Owner to the extent allowed by the manufacturer. Except as provided above, AMERESCO MAKES NO WARRANTIES OR REPRESENTATIONS OF ANY KIND, WHETHER STATUTORY, WRITTEN, ORAL OR IMPLIED, INCLUDING WITHOUT LIMITATION, WARRANTIES AS TO THE VALUE, DESIGN, AND CONDITION OR FITNESS FOR USE OR PARTICULAR PURPOSE OR MERCHANTABILITY, REGARDING THE REPLACEMENT BOILER OR ANY OTHER EQUIPMENT INSTALLED AS PART OF THE BOILER SCOPE OR THE SERVICES PROVIDED HEREUNDER. The foregoing is not intended, and shall in no event be deemed, to extend, revive or renew any warranty of Ameresco with respect to any other ECM, including, without limitation, the Solar Thermal System, under the Original M&V Agreement or elsewhere. If within such one-year warranty period any part of the work is found not to conform to the warranties above, Ameresco shall correct any deficiencies promptly upon receipt of written notice from Owner.
4. **Limitations on Liability.** Anything in this Agreement to the contrary notwithstanding, neither Ameresco nor its officers, directors, agents, employees, parent, subsidiaries or affiliates or their officers, directors, agents or employees shall be liable to Owner, or its parent, subsidiaries, affiliates, officers, directors, agents, employees, successors or assigns, or their respective insureds, for any incidental, indirect, punitive or consequential damages, connected with or resulting from performance or non-performance of the Boiler Scope (irrespective of whether such claim of liability is based upon breach of warranty, strict liability, tort, contract, operation of law or otherwise) or anything done in connection therewith including, without limitation, claims in the nature of lost revenues, income or profits, and increased expense of, reduction in or loss of power generation production or equipment used therefor. Ameresco's liability in contract under this Agreement shall in all cases be limited to unmitigatable direct damages with respect to claims arising out of the performance or nonperformance

of Ameresco's obligations with respect to the Boiler Scope. Ameresco's liability to Owner in tort (including negligence) shall, in all cases, be limited to the proceeds of insurance maintained by Ameresco pursuant to the requirements of the Original M&V Agreement.

5. **Representations and Warranties.** Each party warrants and represents to the other that (i) it has all requisite power, authority, licenses, permits and franchises, corporate or otherwise, to execute and deliver this Amendment and perform its obligations hereunder; (ii) its execution, delivery and performance of this Amendment have been duly authorized by, and are in accordance with, as to Ameresco, its organic instruments and, as to Owner, by all requisite municipal, city council or other action; and (iii) this Amendment has been duly executed and delivered by the signatories so authorized, and constitutes its valid and binding obligation.
6. **Special Term.** Contractor certifies that it is not currently engaged in, and agrees for the duration of this Contract that it will not engage in, a boycott of Israel, as that term is defined in A.R.S. § 35-393.
7. **Miscellaneous.** Except as amended or modified by this Amendment, the terms and provisions of the Original M&V Agreement are hereby ratified, confirmed and approved in all respects. This Amendment may be executed in several counterparts, each of which shall constitute an original and all of which, when taken together, shall constitute one agreement.

IN WITNESS WHEREOF, the duly authorized officers or representatives have executed this Amendment to Measurement, Verification Agreement and Savings Guarantee Agreement No. 111-010 on the date first above written.

LAKE HAVASU CITY

By: _____

Name: _____

Title: City Manager

AMERESCO, INC.

By: 

Name: Robert Georgeoff

Title: ~~Executive~~ Vice President

ATTACHMENT A
Boiler Scope of Services

Ameresco will install a new Thermal Solutions 2000 MBH Condensing Boiler Model number EVCA-2000.

This unit will have the following specifications:

Standard Trim and Controls:

- Operating Control, TSBC (24v)
- High Temperature Limit [max 240°F]
- Water Flow Switch
- LWCO Probe-type, Manual Reset
- Pressure & Temperature Gauge
- Relief Valve: 50 PSI
- Blower Motor: 1-1/2 hp
- Voltage: 480v/3ph/60hz (Amps 3)
- Flame Safeguard (Burner Management Control)
- Main Gas Valve
- Aux. Solenoid Gas Valve
- Pilot Gas Valve
- Pilot Gas Regulator
- Pilot / Leak Test Cocks
- High/Low Gas Pressure Switches
- Combustion Air Switch
- Variable Frequency Drive (VFD)
- Boiler Piping Loop - Includes 3-Way Mixing Valve & Internal Pump
- Condensate Neutralizer, Model JM-20

This unit will be delivered to the site and received by the City.

This unit will be installed where the previous unit was. This old unit has already been removed.

This work is intended to replace the previous unit and will utilize existing plumbing, venting and electrical services.

The scope of the installation will include:

Piping

- Furnish and install new copper pipe & fittings to connect the existing steel piping to the new boiler connection points where needed.
- Furnish and install new 3/4" CPVC drain piping for the condensate neutralizer to the floor sink
- Connect to the existing boiler and T&P copper drain piping
- Connect to the existing 1" steel gas piping at the existing pressure regulator
- Insulate the new boiler piping to match existing

FLUE & OSA:

- Furnish and install new sheet metal pipe & fittings to connect the existing 8" PVC (old flue) as the new outside air intake for the boiler.
- Utilize existing sheet metal roof penetration cap, roof jacks, & termination for the OSA/flue piping per manufacturers specs.

WIRING / CONTROLS:

- Connect to the existing 120V power circuit & switch on the wall behind the boiler
- Connect the existing controls wiring to the boiler - extend as necessary
- Furnish and install new metalflex conduit, fittings, & wire as required

MISC. INCLUSIONS:

- Start-up & testing new system
- One (1) year parts & labor warranty
- Rigging & set boiler
- Materials sales tax
- EMS Controls & integration

MISC. EXCLUSIONS:

- Permits, Fees, Bond
- Engineering & plan development
- Roofing patch & seal
- Asbestos testing & abatement
- Fire Alarm Interlocks
- Painting, Prime or Finish
- Cutting and/or patching of roof, walls, floors or ceilings.
- Concrete, Poured or formed
- Any item not specifically included above
- Delays by others
- Premium (overtime) labor

CONDENSING

EVOLUTION[®]

Higher Efficiency Heating Equipment

Making the Best Even Better

- UNMATCHED OPERATING CONTROLS
- UP TO 97% EFFICIENT
- ULTRA LOW NOX
- CERTIFIED TO BTS-2000 TEST STANDARD



THERMAL[®]
SOLUTIONS

Innovative Equipment for Hot Water Systems

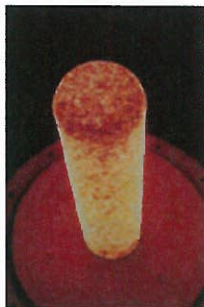
MAKING THE BEST EVEN BETTER

The NEW Condensing Evolution® (EVCA)

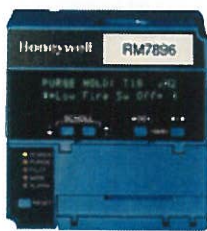
Thermal Solutions has designed the high-efficiency copper-finned condensing Evolution® to meet the needs of today's commercial heating requirements. The Evolution EVCA design takes the very best of existing technology to the next level by incorporating a secondary heat exchanger. The result is higher efficiency and greater reliability in your application.



Heat Exchanger



**Ceramic Radiant
Burner**



Honeywell® RM 7800



SBC Module

The Evolution is now being featured as a fully condensing boiler. Ranges are 750,000 through 2,000,000 BTU/hr. We offer the following features:

Infinite Modulation — Load Matching

The EVCA uses fuel/air ratio controls to modulate the firing rate, providing optimum performance and temperature control. There are no linkages or mechanical devices that can loosen during operation. It's the safest means of combustion control on the market.

Variable Water Flow Rates

Because of its condensing design, the EVCA has the flexibility to accommodate the variable flow rates and temperature requirements of today's diverse hydronic system designs.

Innovative Heat Exchanger Design

Central to the Evolution boiler's highly efficient operation is the design of its copper-tube heat exchanger. Not only does it efficiently maintain heat transfer, but the innovative gasketless cast-iron header provides for easy inspection, cleaning and individual tube replacement. The specially designed condensing section is 100% stainless steel for maximum corrosion resistance and performance.

Clean and Efficient Advanced Combustion

Third-party certified to BTS-2000 at efficiencies up to 97% thermal and NOx ratings less than 9.9 ppm, the Evolution's noiseless ceramic radiant burner runs at minimal excess air levels, creating highly efficient, trouble-free operation. The rugged industrial cast-aluminum blower and fan wheel are equipped with a replaceable combustion air filter (99% efficient to one micron) to create excellent combustion characteristics and even air distribution. There's no need for tricky pressurized compartments...the Evolution boiler can even be operated with its jacket panels removed for easy inspection or maintenance.

Unique Timesaving Controls

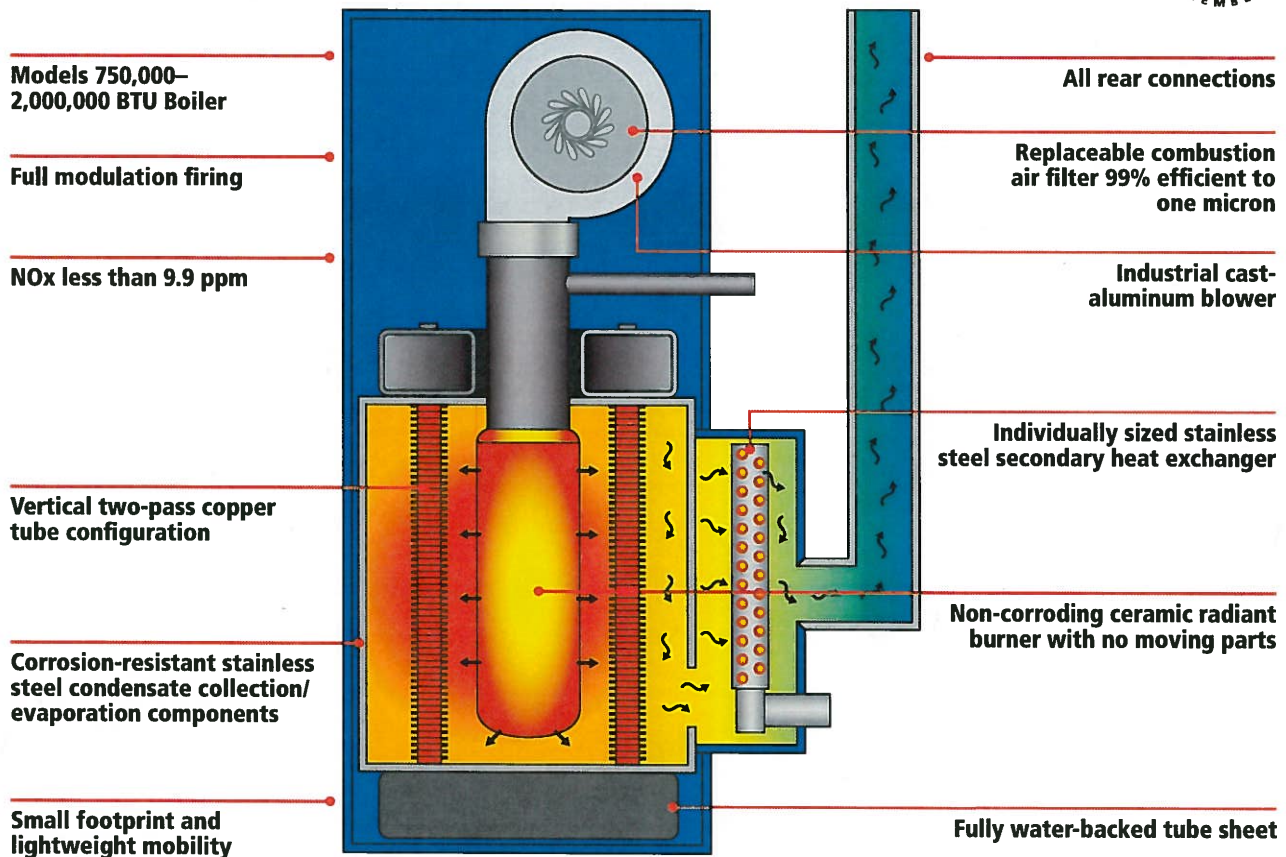
Instead of using a series of relays, the Evolution design uses state-of-the-art microprocessor flame safeguard controls to provide extensive diagnostic information including first-out fault annunciation using an LED diagnostic display. The proven spark-to-pilot ignition system ensures that the pilot is lit before allowing the main gas valve to open. The optional display unit, shown at the left, can be easily incorporated to provide additional operational information and history.

Unmatched Operating Controls

The Thermal Solutions Sage Boiler Control™ Module (SBC™) is truly the heart of the Evolution condensing boilers. Operation is through simple menu selections and doesn't require special training or certification. The SBC offers boiler pump control, outdoor reset, lead/lag operation, inlet and outlet temperature sensors, boiler operating history and many other functions to stand alone or facilitate integration with your existing heating controls or building management system. The SBC provides warm weather shutdown and domestic hot water priority.



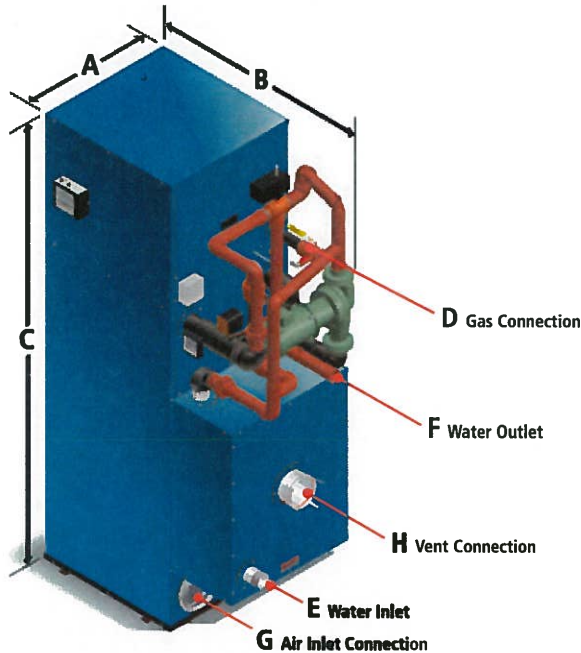
EVOLUTION® CONDENSING UNIT FEATURES



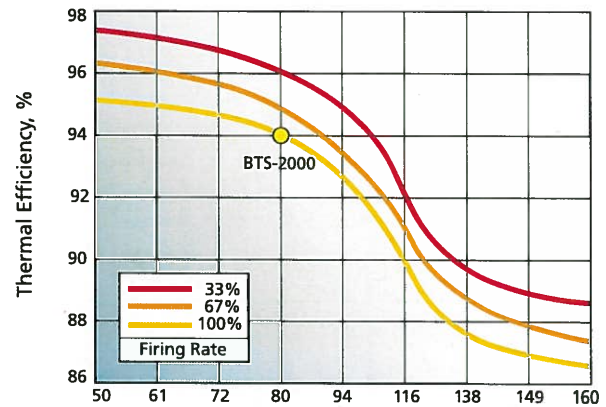
- Proven technology in higher efficiencies
- The most robust design on the market today
- Up to 97% thermal efficiency (BTS-2000 certified)
- Infinitely proportional firing
- VFD air control; no dampers or linkages
- Non-proprietary controls
- Ultra-low 9.9 NOx; is below all current standards
- Non-proprietary parts
- Factory fire-test on every unit
- Standard sealed combustion

- Single-point electrical hook-up for all voltage options
- Standard UL/FM/CSD-1 controls and gas train (optional IRI or IRI with proof of closure)
- Quiet operation (<60 dB)
- Electric spark-to-pilot-ignition system
- Aluminum non-sparking fan assembly
- Filtered combustion air
- Jacket design provides complete access to all components for easy serviceability
- Quick-connect compact package
- Reduced stack sizes — multiple venting options

Ratings and Dimensional Data



EVCA Thermal Efficiency



Entering Water Temperature, °F

Third party certified to BTS-2000 (ASHRAE 90.1)

	EVCA-750	EVCA-1000	EVCA-1500	EVCA-2000
Input: High Fire BTUH	750,000	1,000,000	1,500,000	2,000,000
Output: High Fire BTUH	705,000	940,000	1,410,000	1,880,000
Input: Mod Low Fire BTUH	250,000	333,333	500,000	666,667
Output: Mod Low Fire BTUH	242,500	323,333	485,000	646,667
Boiler Horsepower	21.1	28.1	42.1	56.2
Sq. Ft. per BHP	13.4	13.4	13.5	13.5
Width: "A"	28.25" (717.55)	28.25" (717.55)	28.25" (717.55)	28.25" (717.55)
Depth: "B"	54" (1372)	54" (1372)	54" (1372)	52" (1321)
Height: "C"	60.938" (1548)	65.188" (1656)	79.438" (2018)	91.813" (2332)
Gas Connection: "D" NPT	1-1/2" NPT	1-1/2" NPT	1-1/2" NPT	1-1/2" NPT
Water Inlet: "E" NPT	2-1/2" NPT	2-1/2" NPT	2-1/2" NPT	2-1/2" NPT
Water Outlet: "F" NPT	2" NPT	2" NPT	2" NPT	2" NPT
Air Inlet Connection: "G"	6" (152.4)	6" (152.4)	8" (203.2)	8" (203.2)
Vent Connection: "H"	4" (101.6)	6" (152.4)	6" (152.4)	6" (152.4)
Shipping Weight: lbs.	1470	1625	1730	1865

Dimensions are inches (mm)

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 www.thermalsolutions.com

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SOLUTIONS
 Innovative Equipment for Hot Water Systems