Thank you for your interest in ALL Power Labs equipment, this is an automated response which will hopefully answer your questions and give you the information you were looking for. One of our sales staff should contact you within a few days, but you can make further inquiries by emailing our Director of Sales, Silvia Sandri.

- The PP30 from ALL Power Labs produces 5-25kW electrical and 10-50kW thermal.
- It runs on waste wood and nut shells.
- It is ready for grid tie
- It has an enclosed and soundproofed engine and generator block.
- It runs batch 8-20 hours a day
- Fuel consumption is 1kg/1kW of dry biomass.

Equipment cost

Equipment cost for a Power Pallet PP30 is approximately $65k and will vary according to configuration. Let us know if you would like the catalytic exhaust and automated feed systems included in the quote (they are an additional $5k each. We usually take a 10% deposit at time of order, a further 50% six weeks prior to shipping and the balance when ready to ship. We have a little flexibility on payment terms so please let us know if you need to make any changes. Lead time is usually 6 months but we can expedite on request. The equipment is *not* currently CE or UL certified, we should however be able to achieve the certifications by the end of 2022. Please let us know if this impacts your project viability.

Technical Specs and other existing projects

ALL our technical specs for the PP30 are conveniently linked in this index, among which you will find the datasheet and the shipping information. The latter will be useful for you to have a shipping estimate done as we can only do the shipping quote once we have received a purchase order from you. You may also find it interesting to read how we use the biochar from the machine in our carbon drawdown effort. If you are interested in better understanding machine operation and maintenance, you can have a look at our operation manual or take a deeper dive into our index of standard operating procedures describing the basic operation and maintenance tasks in detail. If you are interested in the Chartainer (only heat and Biochar) please see the specs on the product page and fill in the priority list form to be potentially selected to purchase a machine prior to the official launch date.

Fuel types

Getting the fuel type right is really important so please take a look at our feedstock summary page or our feedstock handbook. Currently we are developing a new reactor type that will be more fuel agnostic but until it is launched we really want to stick to wood chips and nut shells (except peanut, pistachio, and almond) with moisture content less than 30%. Feedstock pieces must be larger than 1cm and smaller than 4cm. (1/2 inches to 1.5 inches.) It mustn't be shredded because stringy shredded wood will not flow in the auger and down the piping into the reactor. You are welcome to reply to this note and send a picture of some wood chips resting on your hand so we can confirm from a visual check that they will be suitable. The type of chipper is really important, we recommend the DR Chipper in the US and Africa or the Laimet in the EU. Pellets are a big "maybe" because it really depends on the pellets. If they are pellets that don't crumble or slag in a high temp wood boiler (800°c), chances are they will be okay in the reactor too, but we will need to get on a call with you and update you on a few things that will make the running go smoothly.

Powertainer, Chartainer and other products

The Powertainer and Chartainer are not currently in production nor can we accurately predict when they will be available because the speed of development depends on the grant funding we manage to obtain. It would however be safe to say that Powetainer and Chartainer will not be available during 2022 and after that they will be available almost exclusively in California for at least another year. Should you be interested in receiving updates on the development, please answer this note and let us know; we will put you on a special mailing list so you will receive updates ahead of time. The containerised 50kW dual PP30 system is currently available in California and will soon be released internationally. A similar hybrid system is also available equipped with an inverter and 80kW of batteries for 130kW total peak load. Here is the pricing sheet for both containerized systems.

Use cases

The use cases which are a better fit for our current state of technology are renewable energy companies all over the world wanting to run to grid or distribute our equipment locally. We are actively reaching out to technical partners as we seek collaboration over the last mile services. We also welcome research projects and university projects. Rural electrification projects and FIT projects are also fine provided that the buyer is already skilled in electricity, wood boilers and engines. Domestic use cases can be a little tricky as the equipment still needs quite a bit of human intelligence and troubleshooting ability, unless you are a gasification enthusiast you may be better off with PV, a wood boiler and a biodiesel generator as backup.

Owner operator or distributorship in your country

If you are looking to own and operate (i.e. sell electricity not equipment) or distribute our equipment in your country please let us know by replying to this note. Ideally we are looking for technical partners who already have experience in cogeneration and gasification. We would

require you to purchase a PP30 and run it for at least 500 hours before attempting to sell our equipment to your clients. We are trying to make a training machine available for rental instead of for purchase, please let us know if this would be of interest. You would need to translate the manuals into your own language and work your way through all the local regulatory hurdles. You would develop the maintenance regime and train your own technicians so as to be able to offer maintenance packages in your region. Our selection process for distributors is fairly competitive; if you are interested please send us your website link, resume and company bio. We will schedule a conference call to discuss further.

Hopefully this automated note answers your questions, if it doesn't, please reply and let us know how else we can be of help.

Thank you for making renewable energy and carbon drawdown your mission.

Silvia Sandri
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