

# **Innovative new configuration of energy supply**

Accelerating the move away from fossil fuels to a new dynamic energy source in accordance with all laws of Atmospheric thermo-dynamics.

## **Benefits:-**

- 1. Has an Output of 100kW of usable power 24/7, without using coal, gas, wind or solar.
- 2. Lowers the cost of energy expenses for households, commercial business' and industry.
- 3. Generates 2,500 litres of water daily directly from the atmosphere.
- 4. 40-50% Energy Saving on A/C's for Data-Centres, Shopping centres, Abattoirs, Farmers, etc.
- 5. Is a 100% Renewable Energy Source utilising wasted heat.
- 6. Can be Installed in remote areas off grid.
- 7. Lowers the cost of **charging batteries** 24/7, anywhere (EV transport).
- 8. Adding **Innovative energy source** to the EV industry.

Confidential and Privileged Investment opportunity 2025

## **K+ Power Device Innovation**

We are in the final stages of completing a device that will produce power, water and cooling through Atmospheric Thermo-dynamics.

We have been working on this project for over 24 months with our thermo-dynamic Engineers, HVAC Technicians, Electrical Engineers, Programmers and Mechanical engineers and have **already invested over AU\$600,000** of our own money on parts and technical skills to build the device in our 300 square metre warehouse at Beenleigh, Qld. We are in the final stages to have a full working model generating 100 kW of usable electrical power 24/7.

The current device we have the components for in our workshop, will produce 100 kW of electricity 24 hours per day without using any fossil fuels, gas, wind, solar or hydro. To give you an idea of the capability of our 100kW machine it has the capacity to provide low cost power to 10-20 typical households.

The unique benefit of our system is the only fuel needed is refrigeration gas and it will last for at least 10 years before it will need to be re-gassed. Just like a typical air conditioning system.

The device exploits the excess energy in refrigerant as used in a standard air conditioning configuration. Normally this energy is wasted as exhaust heat in an A/C, representing a major waste of heat energy, worldwide. The K+ device redirects this energy potential into a mechanical drive chain to drive an electrical generator and produce electricity. This is a clever adaption to a standard A/C unit that utilises the wasted energy.

The A/C system continues as normal after the refrigerant expends its energy in a mechanical drive, as the exhaust from the drive is returned to complete the closed loop of the A/C. In the evaporator, a large amount of humidity from the air is condensed into water and made available for use. The predicted numbers are 2500 litres per day. This is an important feature of the set up as water supply is critical to drought stricken towns.

An additional benefit of our device is that it can be retrofitted into existing cold rooms, freezers and air conditioning units. All the existing infrastructure can stay in place, and we will use our technicians to make the modifications and install our device.

#### How does this invention support ESG?

The K+ Power device captures all the available wasted energy in normal A/C systems and uses it in accordance with all laws of thermo-dynamics.

No additional fossil fuel will ever be needed to produce electricity through this invention (closed loop).

This technology will <u>lower the cost of power generation</u> as we know it today. It will open a new frontier in generating electricity using this pioneering device. After reviewing the science and the maths, one Nano Particle Scientist 'agreed that the device should produce at least 100kW of excess electricity available for any application'.

To be more precise our K+ Power Device is bringing together the proven existing technical components of an air conditioning system, thermo-dynamics, electrical generators plus proven existing mechanical engineering components of an engine to make electricity and to improve the Coefficient Of Performance (COP) of cooling.



One of the many components of the K+ Power device.

#### How did the invention evolve?

Our engineers have completed the building of our computer programs to simulate the various mathematical cycles for the 100kW output required. During that time, because this is a revolutionary and unique invention, we found additional properties for increasing the Co-efficient of Performance (COP) of the compressor, improving the energy recovery/recycling system and improving the energy extraction and condensation system. These properties by themselves lower the cost of running any A/C or refrigeration for cooling and produce additional water daily.

We had gone as far as the simulations would take us and our next step was purchasing all the major components (Evaporators, Compressors, Condensers, Discharge lines, Expansion valves and Engines) based the <u>many specific mathematical variables</u> of Atmospheric Thermo-dynamics calculations for pressure, temperature, volumes and heat transfer etc., to produce the results we wanted. Currently in our workshop we have the majority of components needed.

Our final step is to start to assemble the physical machine ( $\underline{K+Power Device}$ ) in our warehouse, but there will be a few tweaks from our Innovation team and parts we will still need to design and purchase along the way. We believe we are about 3 months off having a full working model. As soon as we have completed our first device, we will scaled up or down as desired.

## Why is this so unique?

Our K+ Power Device will make electricity as its primary role using atmospheric thermo-dynamics. Then as a by-product it will provide cooling (because it is an air conditioner) and it will make water and lots of it.

The refrigeration industry has been working on improving their systems for many decades with the idea to reduce the amount of electricity they use (they call this improving the COP Co-

efficient of Performance). We have a piece of the puzzle they haven't discovered before, which is the game changer to this industry, but more importantly it will make electricity on the way through.

This technology sets in place a perpetual running system to use wasted heat to generate electricity. The only external electricity required will be a relatively small battery to start the system which will initially turn over the compressor, similar to starting a car.

## **K+ Power Device Overview**

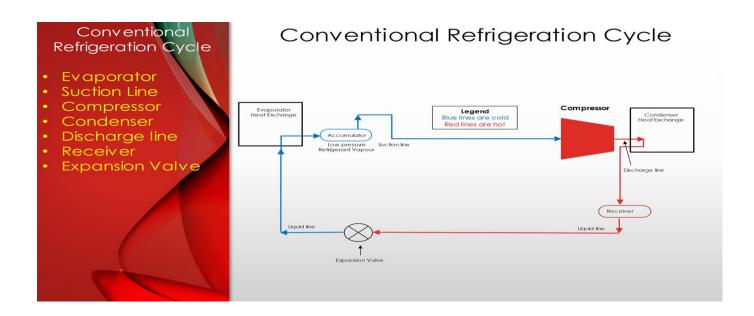
(Atmospheric Thermo-dynamic Power device - reducing the cost of power)

#### How does it work?

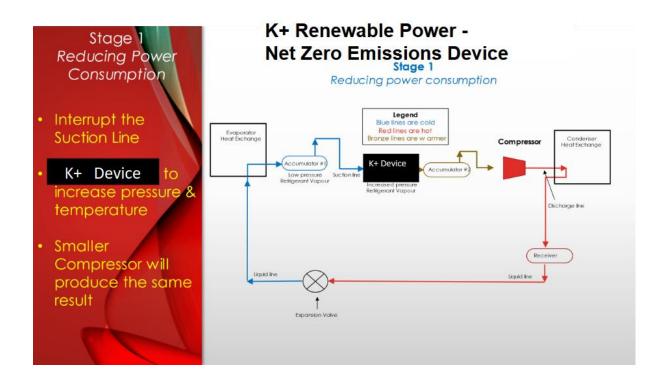
Without giving away too much of our confidential nature of this invention, here is an overview of how it works.

## Background understanding

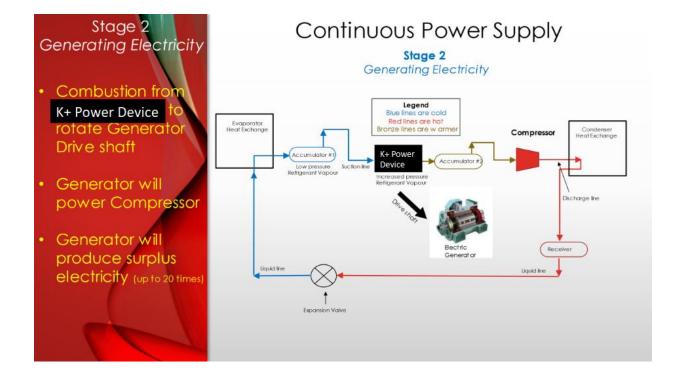
We work with a standard air conditioning system. Here is an explanation of how a typical air conditioning system works. The Compressor uses electricity to compress refrigerant gas so that the temperature increases. This hot gas is connected to a Condenser. The Condenser is where it 'changes state' as they say. This means the hot gas is converted to a hot liquid as condensation, this is then connected to the Expansion Valve. The Expansion Valve only lets a small amount of liquid through at a time which means the hot liquid is converted to a combination of very cold liquid and gas. This mixture then moves to the Evaporator. In the Evaporator all the liquid is evaporated so that only cold gas remains. This is the part you see in your split systems at home, this is the part on the wall. The Compressor and Condenser are outside. Apart from the fan at the Evaporator to move the cold air around, the Compressor is the main user of electricity in an A/C system and therefore the main cost.



Our technology will place our Device (Black box) between the Evaporator and the Compressor. This device will do two things. Firstly, it will do part of the Compressors job by compressing the refrigerant gas (reducing electricity costs of the compressor). Secondly, it will generate electricity through Kinetic energy.



Our secret is that we know how to make Kinetic energy that creates electricity in a controlled environment without breaking the rest of the air conditioning system.



This technology is comprised of the following major systems:

- 1. Low temperature, ambient pressure evaporation system;
- 2. Thermally-coupled refrigeration system;
- 3. Energy recovery and recycling system; and
- 4. Energy extraction and condensation system.

In layman's terms, the K+ Power device will produce 100 kW of electrical power 24/7 by:

- 1. Absorbing energy from the atmosphere and channelling it through an A/C system,
- 2. Using pressurised refrigerant vapour to put an engine in motion,
- 3. Using the engine shaft to spin a generator to produce electricity.

## **Summary of Innovation**

The target output is generating 100 kW (24/7) of electrical power (every indicator from the Innovation team is 200kW-300kW output). The production of the first 100kW unit will provide data that will enhance further development (scale up or down). Specifically;

- 1. Our K+ Power device <u>recycles the wasted heat</u> associated with large users of electricity for cooling e.g. Data-centres (one of the biggest users of electricity today), Commercial high rise buildings (CBD), Shopping centres, Food preservation centres (Cold rooms and freezers, Abattoirs), Residential high rise buildings etc. <u>to produce low cost</u> electricity.
- 2. Under normal working conditions, access large amount of humidity from the air and **condensed it into water** and make it available for use. The predicted numbers are 2,500 litres per day. This is an important feature of the set up as water supply is critical to drought stricken towns and certain industries.
- 3. Accelerating the move <u>away from fossil fuels</u> to a new dynamic energy source <u>No additional</u> fossil fuel will ever be needed to produce electricity through this innovation (It is a closed loop system).
- 4. The K+ Power device redirects <u>newly captured energy</u> into a mechanical drive chain to drive an electrical generator and produce electricity.

## **Investment Opportunity**

The major benefit of our system is immediate production of renewable power (100kW) and reduction in electricity costs in all existing air conditioning and refrigeration situations without introducing capital intensive renewable energy infrastructures.

The Company proposes to undertake Equity Raising of up to AU\$100,000 to complete the prototype. Then we will accept promised orders to take the project to full commercial realisation.

We are interested in attracting innovative like-minded investors with vision, community alignment and commercial profit as their focus.

## Sales of the K+ Power Device

Proposed Sales into <u>Australia only</u>; Supermarkets, Clubs & Pubs, Service Stations, High Rise apartments and Shopping centres over a 10 year period with an <u>understated</u> 10% take up, equates to **\$168M in profit**.

## Market opportunities – further background information

The three major Air-conditioning/Refrigeration markets worldwide are:

- 1. Commercial High rise buildings Data-centres, shopping centres etc.
- 2. Industrial Cold rooms and freezers Farmers, Abattoirs etc.
- 3. Residential high rise buildings.

## How big is the market?

An International Energy Agency (IEA) report "The Future of Cooling" <sup>1</sup>published in May 2018 cited that the use of air conditioners in homes and offices around the world will be one of the top drivers of global electricity demand over the next three decades. **The global number of air conditioners in buildings in 2018 is 1.6 billion which will grow to 5.6 billion by 2050.** 

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<sup>&</sup>lt;sup>1</sup> https://webstore.iea.org/download/direct/1036