

# INTRODUCING **THE KWATT COIN**

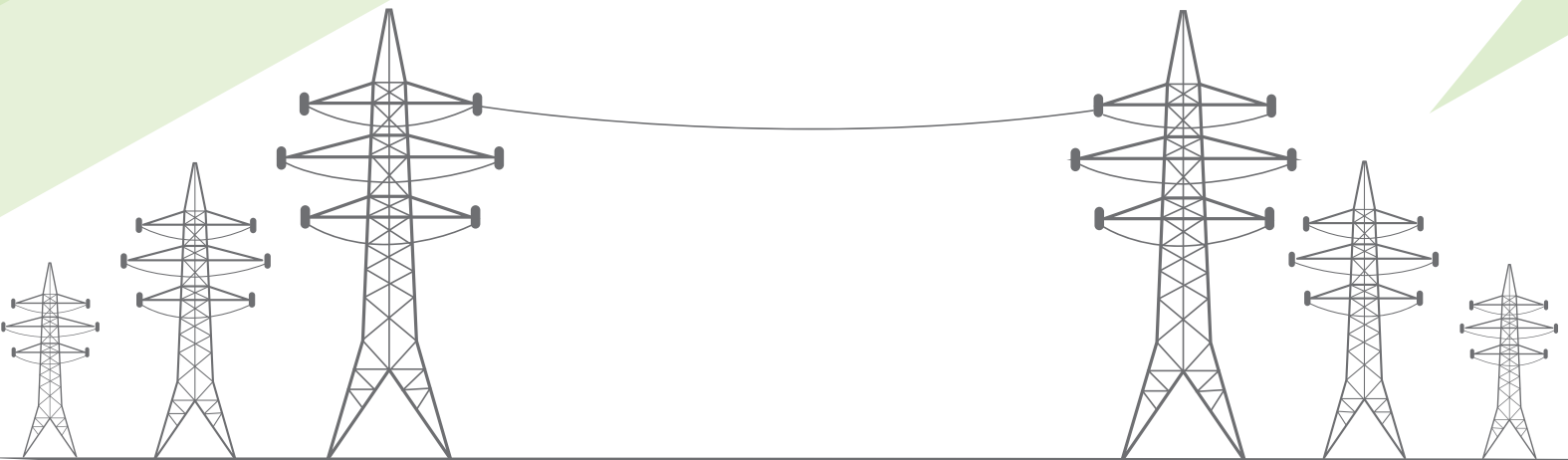
~ TOKENIZED ELECTRICITY ~

**POWERED BY**



## **4NEW**

POWER TO THE PEOPLE  
LITERALLY



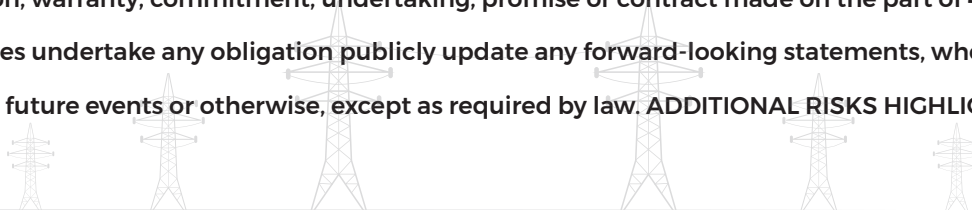
## DISCLAIMER

This document and any other 4NEW documents do not constitute a prospectus of any sort and are not a solicitation for investment. The KWATT Coin does not represent an ownership or share in ANY public or private corporation, or other entity in any jurisdiction. The KWATT Coin is a coin that can be used to purchase goods and services within the 4NEW ecosystem.

Acquisitions of KWATT Coins through the initial coin offering are non-refundable. KWATT Coins are only to be used in connection with 4NEW. Any acquisition and use of KWATT Coins carries significant financial risk, including the use of experimental software.

Except where specifically indicated, the statements and information set forth in this Whitepaper are not intended to recite current or historical facts, and constitute forward-looking statements. Forward-looking statements may include the words “may,” “will,” “could,” “should,” “would,” “believe,” “expect,” “anticipate,” “estimate,” “intend,” “plan” or other words or expressions of similar meaning. These forward-looking statements are based on the current beliefs, plans, objectives, goals, expectations, anticipations and/or intentions of 4NEW with respect to future events. Although 4NEW believes that the expectations reflected in the forward-looking statements are reasonable, 4NEW cannot guarantee the successful establishment or operation of its systems and business or any future results, level of activity, performance or achievements.

Many factors discussed in this Whitepaper or otherwise affecting the matters discussed herein, some or all of which may be currently unknown to 4NEW or beyond 4NEW’s control, will be important in determining the ability of 4NEW to establish and operate its systems and business. Consequently, actual results may differ materially from those that might be anticipated from the statements and information set forth herein. In light of these and other uncertainties, the statements and information set forth in this Whitepaper are for informational purposes only, should not be relied upon in making any purchase or other decision, are subject to change, and are not intended to establish or indicate any representation, warranty, commitment, undertaking, promise or contract made on the part of 4NEW to any person. 4NEW does undertake any obligation publicly update any forward-looking statements, whether as a result of new information, future events or otherwise, except as required by law. **ADDITIONAL RISKS HIGHLIGHTED ON THE WEBSITE.**



## LETTER FROM THE FOUNDER & CHAIRMAN

Ladies and Gentlemen:

The team at 4NEW is proud to announce the world's first coin ever, that embodies electricity. Our product is grounded in necessities, solving three global & social problems; waste surplus, energy shortfall and voracious energy consumption. of cryptocurrencies.

Our blockchain platform will enable the staking of KWATT tokens that will, for the first time ever, facilitate tokenized electricity to transact over the blockchain network. This revolutionary application and utilization was only possible with the advent of the blockchain technology.

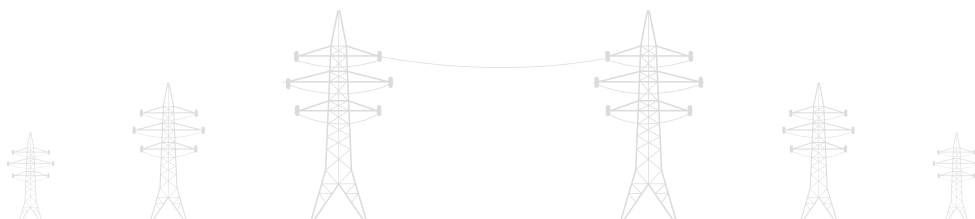
Given the utilitarian nature of our services, it is our belief that 4NEW will successfully integrate the blockchain network within the real world applications of energy consumption of the crypto community leading to widespread mainstream adoption.

Our seasoned management team, with over 300 years of collective experience, brings a vast and diverse perspective that has enabled 4NEW to explore rare and unique opportunities. We are excited to present a solution such as ours that will revolutionize and standardize three industries, Crypto-mining, Waste Management and Energy, creating disruptive economies of scale on a global level.

Regards,

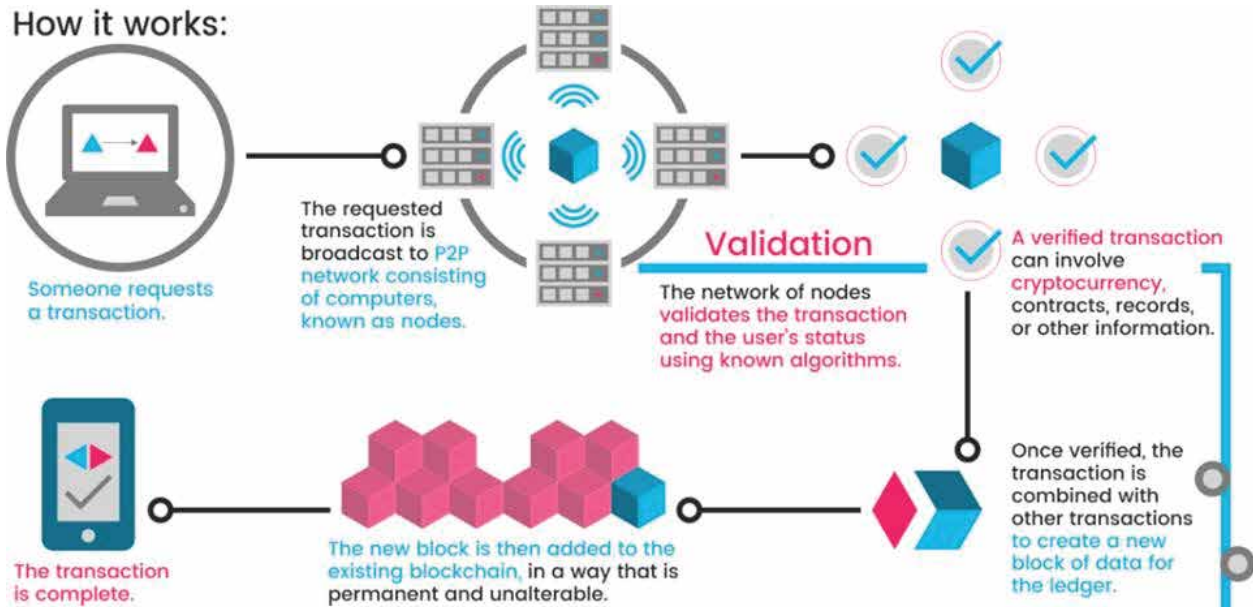
**Varun Datta**

Founder & Chairman



## CRYPTOCURRENCY TRANSACTION

How it works:



### Cryptocurrency

**Cryptocurrency** is a medium of exchange, created and stored electronically in the blockchain, using encryption techniques to control the creation of monetary units and to verify the transfer of funds. Bitcoin is the best known example.



Has no **intrinsic value** in that it is not redeemable for another commodity, such as gold.



Has no **physical form** and exists only in the network.



Its supply is not **determined by a central bank** and the network is completely decentralized.

## INTRODUCTION TO THE PROBLEM

Cryptocurrencies global market capitalization has surpassed \$500 billion USD rising over 2000% in 2017. This trend is expected to continue for the foreseeable future as businesses increasingly embrace the elegant design and transparency the blockchain offers to all.

However, as of March 31 2018, Bitcoin mining energy intake has officially surpassed the entire energy consumption of the country of Singapore, which ranks 43 globally in regards to energy consumption. As the difficulty of mining increases to reflect the influx of miners joining the network, this energy consumption will increase.

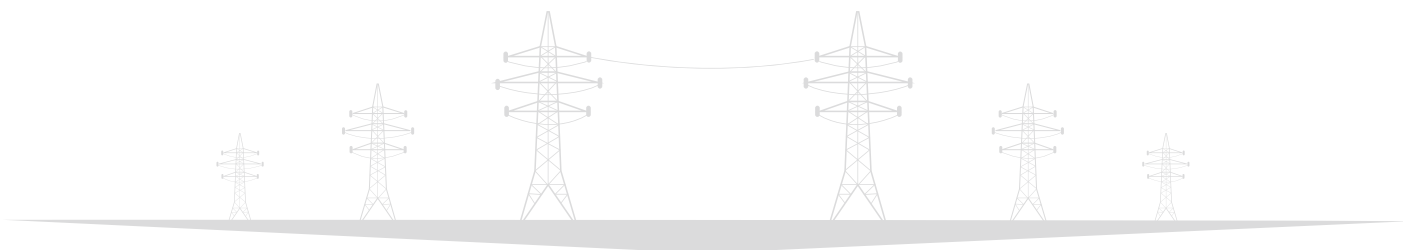
The most astounding aspect of this is that the rate of expansion is exponential. At the current rate of consumption, next year Bitcoin mining will consume enough energy to be listed as the twentieth country in the world by energy consumption. The model is simply unsustainable. The world relies primarily on the production of energy from the burning of coal and oil, which not only damages the environment, but the economy as a whole. If Bitcoin has a great enough impact on the world's coal and oil supplies, the cost of a kilowatt will rise globally.

The more valuable one bitcoin becomes, the more energy will be used to mine that coin, therefore with price spikes, come energy spikes. This will go on until energy around the world will cost much more than it does currently, as a result of increased demand from miners globally.

As of September 30, 2018, 1 bitcoin transaction consumed as much power as 7.5 US households for a day.

As of December 31, 2018, 1 bitcoin transaction consumed as much power as 10.5 US households for a day.

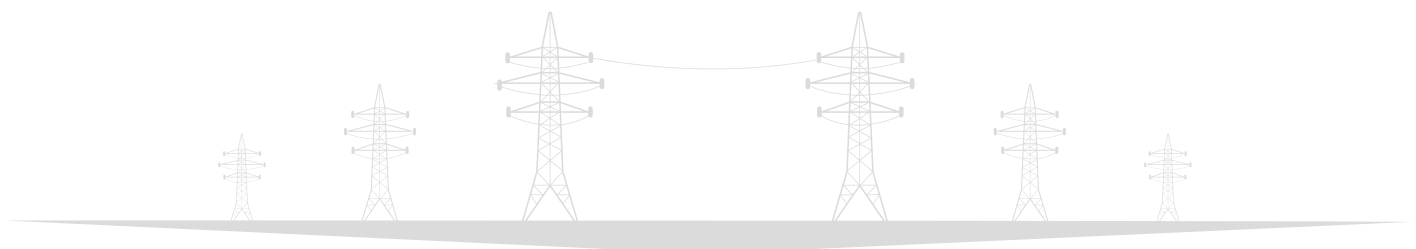
As of March 31, 2018, 1 bitcoin transaction consumed as much power as 30.5 US households for a day.



## KEY NETWORK STATISTICS

Data as of April 14, 2018. Data provided by Digiconomist Energy Consumption Index. <https://digiconomist.net>,

KEY NETWORK STATISTICS	BITCOIN	ETHEREUM
Network's current estimated annual electricity consumption* (TWh)	60.66	17.26
Annualized global mining revenues	\$6,259,587,374	\$4,548,938,237
Annualized estimated global mining costs	\$3,033,211,250	\$2,071,685,934
Country closest to in terms of electricity consumption	Colombia	Cuba
Electricity consumed per transaction (KWh)	989	78
Number of U.S. households that could be powered in a year	5,617,058	1,598,523
Number of U.S. households powered for 1 day by the electricity consumed for a single transaction	33.43	2.63
Bitcoin's electricity consumption as a percentage of the world's electricity consumption	0.27%	0.08%
Annual carbon footprint (kt of CO2)	29,725	-
Carbon footprint per transaction (kg of CO2)	484.72	-





## Bitcoin Energy Consumption Index

Bitcoin Energy Consumption Index Chart

Click and drag in the plot area to zoom in



## Ethereum Energy Consumption Index (beta)

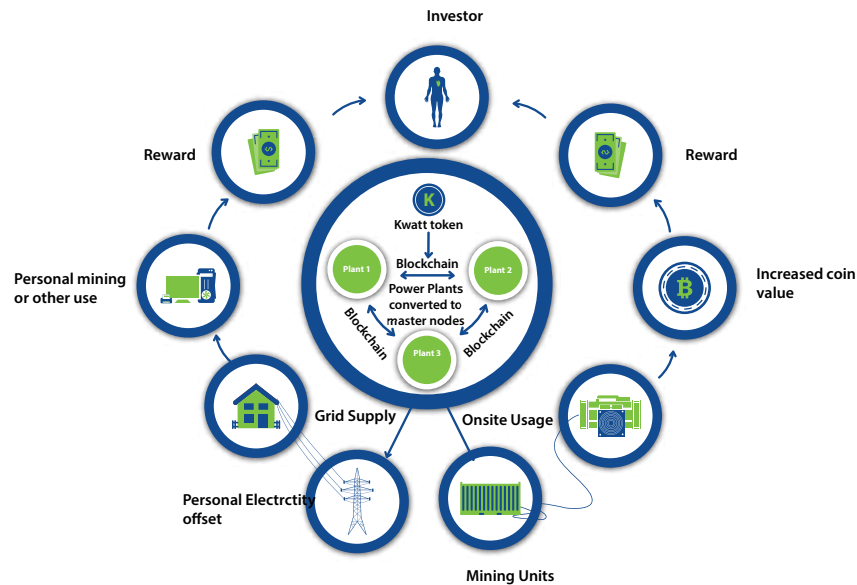
Ethereum Energy Consumption Index Chart

Click and drag in the plot area to zoom in



## 4NEW SOLUTION

4NEW is the world's first eco-friendly, tangible, blockchain ecosystem powered by waste to energy power plants. The concept is quite simple, the process of refining waste product into water and organic materials creates energy and that is then leveraged to either be sold to the national grid or applied to operate mining processes at an onsite mining farm.



This will enable global transference of electricity without the need for infrastructure.

The cost to produce the energy is met through the revenue generated from the waste collection services and sale of byproducts facilitating a sustainable operation at breakeven or a marginal profit. Therefore, the energy produced is unencumbered and freely available for utilization or sale to the national grid.

Historically, the price of 1 kilowatt has been very stable for the past fifty years at approximately \$0.15 globally, inflation adjusted. This trend is expected to continue for the foreseeable future in lieu of technological innovations. However, the wild card that not many have truly evaluated is the exponential acceptance of the blockchain worldwide leading to a massive spike in energy consumption by cryptocurrency mining that could drive the price of energy up globally.

4NEW has the unique opportunity to apply this finite lifetime supply of energy to its coin, namely, KWATT. The 4NEW coin symbol is KWATT. Each KWATT Coin embodies within it, 1 kilowatt of electricity for a year.



## 4NEW'S KWATT COIN FEASIBILITY

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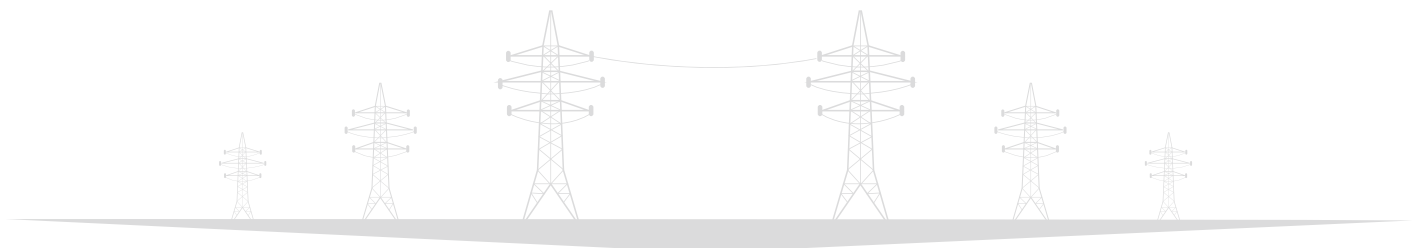
The KWATT Coin will represent a certain hashing capacity per coin. This concept is not new; Companies such as Giga Watt have offered similar mining items for lower costs, however, KWATT Coin is extremely unique in scope. We do not charge energy fees for mining, the only cost to a coin holder is the cost of the coin. This means that a coin holder will be able to mine all cryptocurrencies for the lifetime without spending an additional penny for their energy bill. The energy is free to us, so it is free also to the coin holders.

How does 4NEW Sustain Itself?

The concept of 4NEW relies upon the waste to energy model. In this model we are paid for the waste that we process, and the sale of byproducts such as fertilizer, organic materials and clean water. The start up costs to this mechanism are funded by the coin sale, and the plant's overhead is funded by cash flow generated from collection of waste and revenue from sale of byproducts. Additionally, 4NEW, and the 4NEW team will retain a portion of the KWATT Coins (and their associated mining capacity) which will provide an additional revenue stream moving forward.

### The Mining Capacity of a KWATT Coin

The most difficult part of the KWATT Coin design has been determining a model to correlate with the increase in mining difficulty. We understand that one hash today can represent half of its mining power a month from now. To solve this issue, we have decided to have the coin represent a fraction of the total mining capacity of the 4NEW network rather than a fixed mathematical rate. This concept allows 4NEW to expand their mining capacity to match a competitive rate on the network. This rate of exponential expansion will be a predetermined reinvestment strategy of the funds received through 4NEW's own mining portfolio, in addition to the profits from the other revenue streams. This model not only guarantees the longevity of free energy, but the longevity of competitive mining practices.



### Portfolio Customization

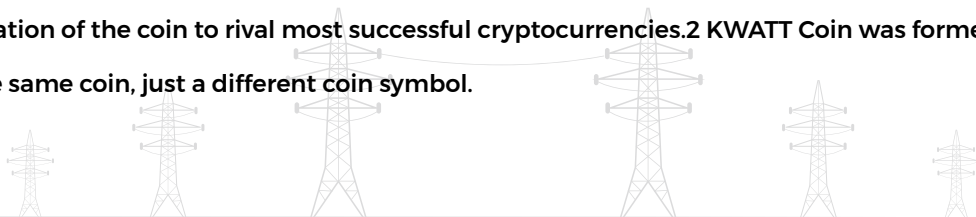
Users will have the ability to decide which coins or coins they would like to put their KWATT Coin power towards to mine. The options will consist of the top twenty minable coins, this decision will automatically point the necessary amount of hash rate towards mining that coin, and the yield will be transacted to the account associated with your 4NEW Wallet.

### Proof-of-Work / Proof-of-Stake

In recent months, Ethereum has taken steps towards a Proof of Stake system that will be fully implemented sometime in the following years. At 4NEW we fully support these steps and understand that more efficient systems are necessary for the sustainability of cryptocurrency in the long term. Yet, we also understand that Proof of Work will not likely be fully removed from cryptocurrency within the next decade. For this reason, additional precautionary steps must be taken to reduce the economic and environmental effects of the inefficiencies associated with Proof-of-Work mining, and our mission is to be on the vanguard of these efforts. Even if Proof of Work was completely removed and Bitcoin mining non-existent, the energy embodied within the coin can still be either applied to a greater volume of Proof of Stake mining operations or the national grid, given severe energy shortfalls already prevalent within the world.

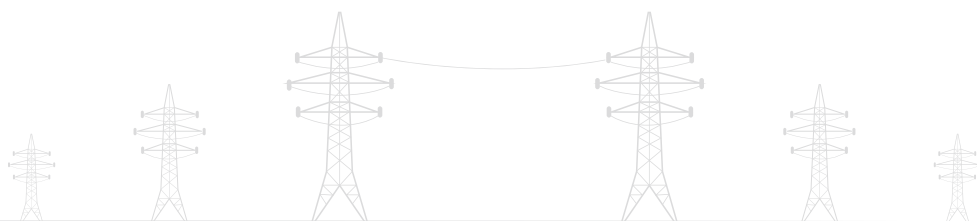
### Management and KWATT Coin Holder Interests aligned

Given that the Waste to Energy plants will sustain operations at breakeven from revenue generated from the sale of waste collection services and/or byproducts, the energy produced is free. This lifetime supply of free energy is being purchased by the coin holder in this crowdsale. Any revenue generated from the administrative and facilitation fees the company will charge to either sell the energy to the national grid or apply it to the crypto-mining farm on behalf of the coin holders will allow for future growth and expansion strategy. Therefore, increasing the overall demand for the coin. With three plants, the total output capacity rises to roughly 1 billion kilowatts per annum. This will enable a market capitalization of the coin to rival most successful cryptocurrencies.<sup>2</sup> KWATT Coin was formerly named FRNCoin. It is the same coin, just a different coin symbol.

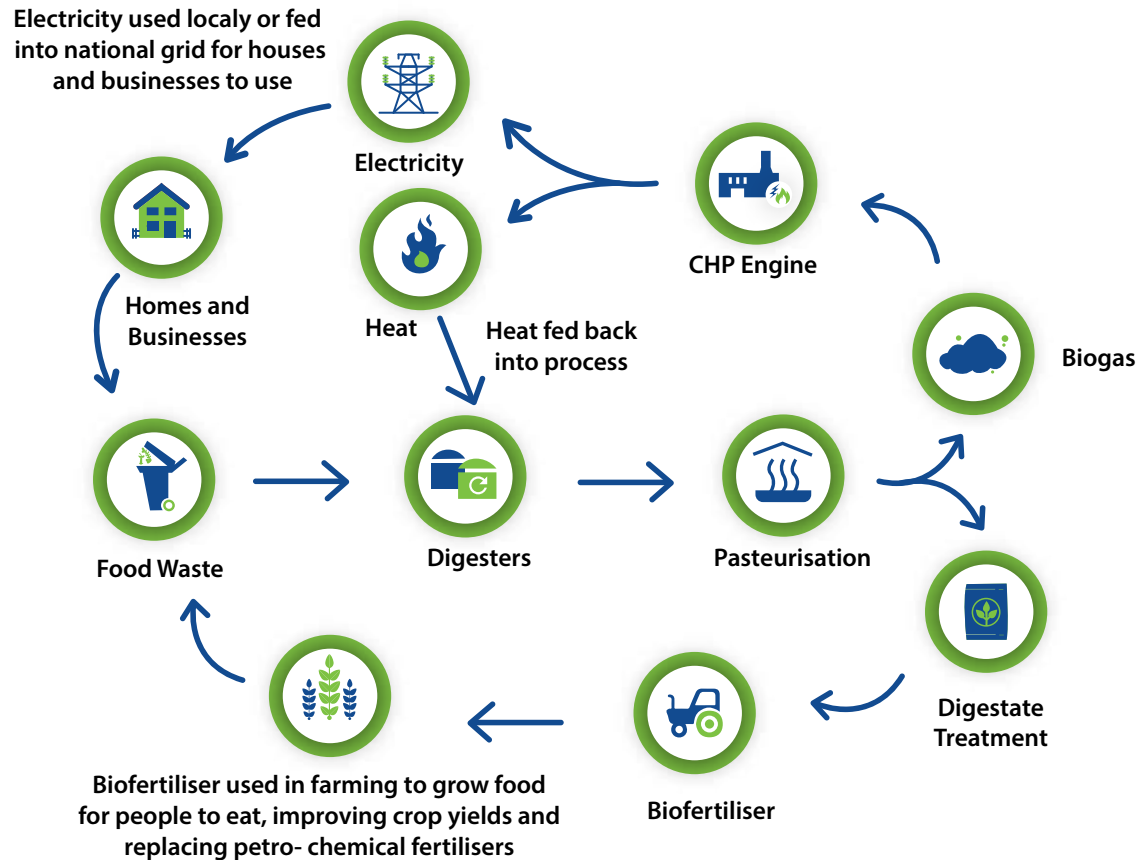




## ROADMAP



## 4NEW'S WTE PLANT



Organic waste is collected from homes and businesses, and is mixed with farm residues to form a substrate which is fed into the digesters. Here, the mixture is heated to between 35-55 degrees Celsius, and it begins to release biogases. This release of gases continues for 65 days through to the pasteurisation process, where the substrates are then further heated to over 70 degrees, in order to kill any harmful bacteria. Following this, the "digestate" - the matter left behind after the biogases have been extracted - is stored until it can be spread as fertiliser on agricultural land.

Now that the gases have been captured, they are able to be run through a Combined Heat and Power (CHP) engine. 30% of the heat is utilised by the plant to assist in the fermentation process, and the electricity is either utilised on site, or exported to the grid.

## Pollution Control System

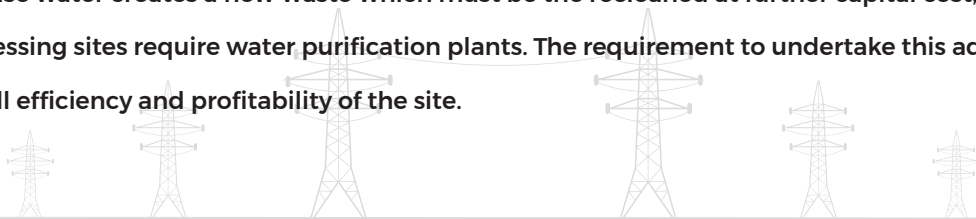
Biogas is mainly comprised of methane ( $\text{CH}_4$ ), carbon dioxide ( $\text{CO}_2$ ) and small amounts of hydrogen sulfide ( $\text{H}_2\text{S}$ ), and water vapour.

Hydrogen sulfide ( $\text{H}_2\text{S}$ ) is a colourless, poisonous, flammable gas formed in the fermentation process by the transformation of sulphur-containing proteins, often found in manure. The issue that this causes, is the sulphuric acid which forms will quickly degrade and corrode an engine.

There are a number of techniques which can be adopted for desulfurisation, of which Plant 1 and 2 utilize activated carbon filters. These work by forcing biogas through the remaining digestate; during this process the porous structure of the digestate traps the  $\text{H}_2\text{S}$  molecules, and the  $\text{H}_2\text{S}$  breaks down into elemental sulphur,  $\text{CO}_2$ ,  $\text{H}_2\text{O}$  and  $\text{K}_2\text{SO}_4$

Energy from waste includes a number of different technologies and processes, including Combustion, Gasification, and Anaerobic Digestion. The benefit to these processes is not only that they are reducing waste to landfill, but they offer additional revenue streams in the form of gate fees, Renewable Obligation Certificates (ROC), Feed in Tariffs (FiT), and Renewable Heat Incentives (RHI) depending on the setup of the plant. These present profitable models before the use of surplus electricity, and as an additional benefit, when properly maintained they run consistently with minimal downtime for 92% of annual hours without intermittency.

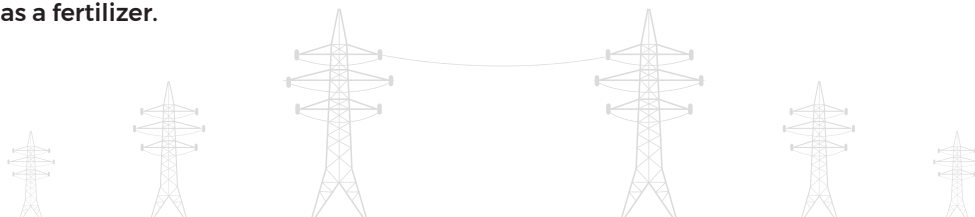
Traditional combustion, sometimes called incineration, often used in mass-burn plants, requires vast amounts of air to pass over the flame in order to maintain the burn, as huge volumes of waste at different consistencies pass through it every hour. In this scenario, two seconds of burning means the emissions have travelled a great distance from the flame, so the plant needs to be extremely large, and still there is a lot of particulate matter travelling in the flue gases. This usually means large sites needed to process the emissions through a wet electrostatic precipitator. Cleaning processes which use water creates a new waste which must be the recleaned at further capital cost; this is why the larger waste processing sites require water purification plants. The requirement to undertake this additional step reduces the overall efficiency and profitability of the site.



Gasification is a process that converts materials contained within the waste material into methane (CH<sub>4</sub>), Carbon monoxide (CO) and Hydrogen (H<sub>2</sub>) by reacting the material at high temperatures with a controlled amount of air. The resulting gas mixture is called syngas and can be further used as a fuel. Close Coupled Secondary Gasification is an example of this, which involves the waste and recycled flue gases being fed into the Primary Chamber, where it is moved down a step-grate furnace, drying as it descends to the point of gasification. As the waste is heated, combustible syngases are released, and pass into a cavity above the Primary Chamber, called the thermal reactor. Here, a secondary supply of oxygen is mixed with the syngases in order to oxidize the gases, and this mixture then burns very well at the required 850°C temperature. During periods of start-up, this gas mixture can be substituted by natural gas in order to ensure the fuel is adequately dried and the correct temperature is maintained from minute one of the process, as required by the Waste Incineration Directive (WID). The heat from the thermal reactor passes into the boiler where steam is produced to drive the turbine, in order to create the electricity.

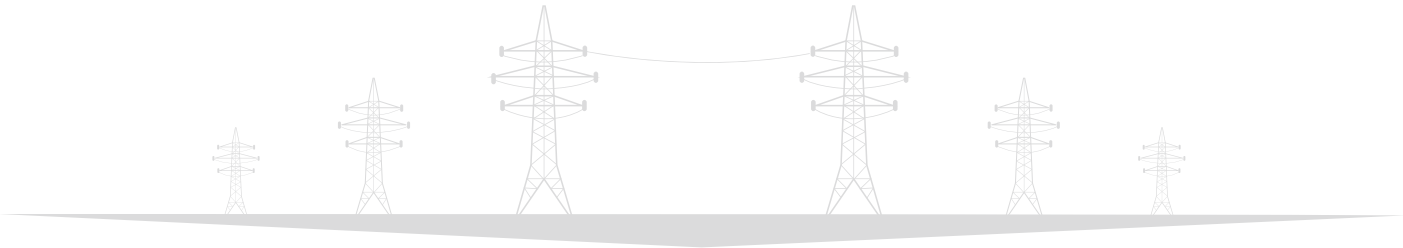
Emissions must still undergo Continuous Emission Monitoring (CEM) and flue gas cleaning in the form of bag filtration with added absorbents and carbon filtration.

Anaerobic Digestion is a controlled fermentation process used for recycling organic materials and extracting the maximum resource from the waste. It is created from substrates predominantly made up from four groups: food waste, manure, sewage and crop residues. The substrates are delivered into reception tanks, where they are assessed for quality and contents, before they are mixed with solid matter and fed into the primary and secondary fermenters, where they are held for 65 days at 35-55 degrees. Microorganisms then break the substrates down into biogases made up of methane, carbon dioxide and water – this is known as anaerobic digestion. These gases rise into the half-sphere flexible top part to the plant, before they are cleaned, compressed, and are run through CHP engines. Approximately 8% of the electricity and 30% of the heat is utilized by the plant for maintaining process functions, and the remainder of the electricity can be used or sold. The digestate materials are then stored before they are extracted for use as a fertilizer.



Specification

Per Plant		
Waste Input	100000	tonnes/annum
Calorific Value	300-400	kWh/tonne
Electrical Output	5 gross	kW/tonne
Operational Hours	8000	hrs/yr



## 4NEW'S BLOCKCHAIN

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Electricity is an intangible commodity. Nevertheless, it is not practical or feasible to scale access to electricity globally due to its dependence on tangible infrastructure that tends to be localized and dependent on jurisdictional laws and local supply demand economics.

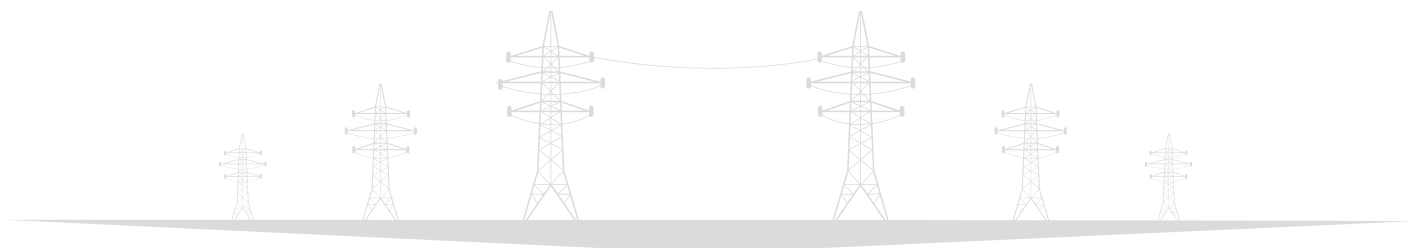
With the advent of the blockchain technology, for the first time in human history, we have the ability to scale a localized, intangible commodity such as electricity, globally. Historically, power providers would structure Power Purchase Agreements with large consumers of power such as factories or manufacturing lines. This would allow the consumers of power to negotiate deeply discounted prices due to the collective bargaining strength of their unique vantage point.

The KWATT Coin allows us to fractionalize the output capacity of a power plant down to the most fundamental and basic unit, which is the kilowatt hour. Moreover, by pegging the power unit to the coin, for the first time we can make power mobile as long as the power plant has the supply of electricity to back it up

4NEW has successfully configured the KWATT coin to be pegged with electricity since we are a power producer not an exchange.

Furthermore, the 4NEW blockchain will enable holders of the KWATT coin to stake their tokens on the network allowing consumers of power to utilize the staked coins in order to process crypto transactions for currencies such as Bitcoins, Bitcoin Cash, Ethereum and Dash amongst others.

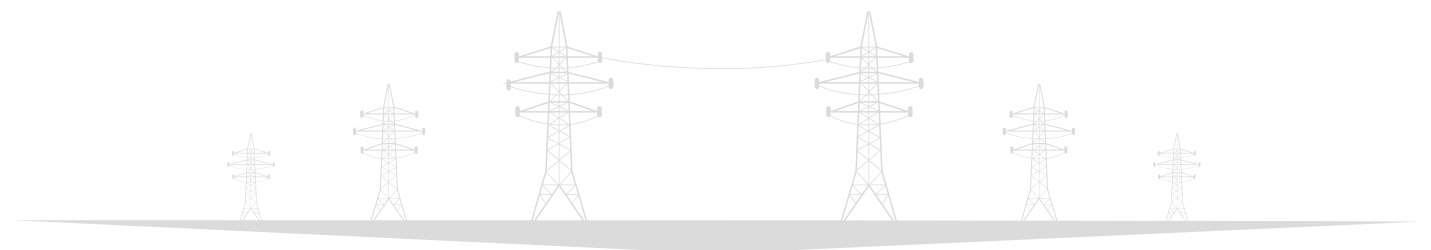
In this manner the 4NEW ecosystem including the power plant and the mining farm will operate on the underlying blockchain technology making kilowatts mobile and scalable globally.





The 4NEW decentralized, distributed ledger is also where all actors in any industry will be able to transact using the KWATT coin. The coins are smart contracts which establish a binding relationship between transacting parties and provide a value for each transaction.

The ledger will provide an immutable and auditable journal of all transactions related to purchase and sale of goods and services on the blockchain. With all parties to each transaction being able to see the same ledger entry, costs of reconciliation and potential issue of disputes and revenue leakage are controlled to a very large extent.



## 4NEW'S KWATT TOKENOMICS

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KWATT Token currently is an ERC20, Ethereum based smart contract. Upon completion of the blockchain development, the token will be swapped to the KWATT Coin that will interact with our blockchain.

The total coin offering is for three hundred million coins (300,000,000).

Our first plant will launch with a capacity of generating 10 megawatts of power every hour. Upon seasoning the plant operations, our infrastructure will be able to increase output capacity to 40 megawatts per hour. 1 megawatt is equivalent to 1000 kilowatts. 1000 kilowatts powers approximately 650 households for one day. Peak or off-peak usage of the power at different times of the day can cause this average to deviate.

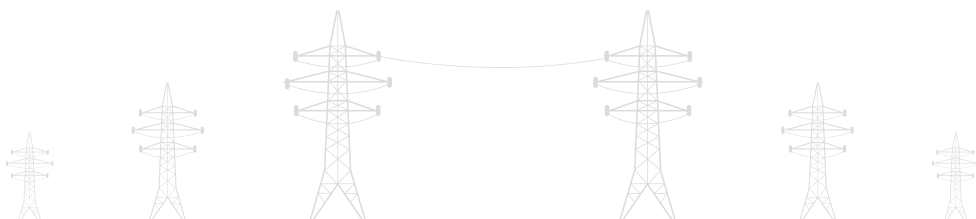
The maximum annual output capacity of the plant is 346 million kilowatts per year. Due to maintenance and general down time for repairs to the plant, expected annual output capacity is estimated at 300 million kilowatts per year realistically.

Each KWATT Coin embodies an annual supply of 1 kilowatt of electricity within it.

A typical Waste to Energy plant depreciates to its salvage value over 50 years. Regular maintenance and upkeep will allow us to extend life beyond that.

This means holder of KWATT Coin will be able to apply their energy to one of two places each year for the next 50 years. They can either sell their energy to the UK National Grid or they can choose to apply it towards 4NEW's cryptocurrency mining farm.

The price of 1 kilowatt for electricity is a very stable metric. Over the past 50 years, the global average retail price is approximately \$0.15 USD per kilowatt, inflation adjusted.

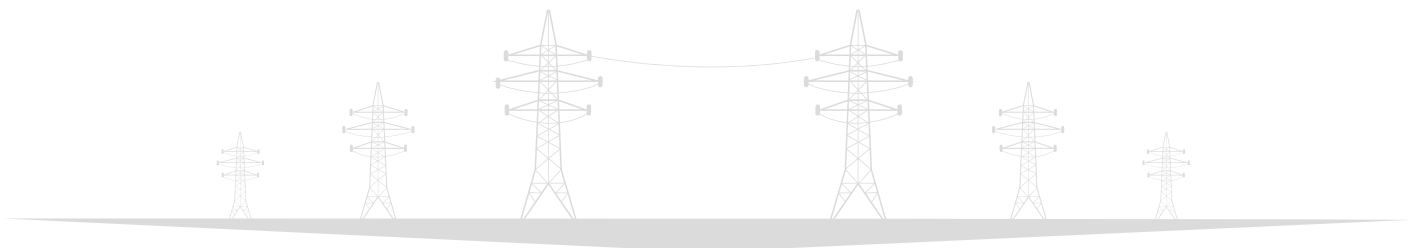


4NEW will never authorize any additional coins issuance over and above the three hundred millions coins being launched in this initial coin offering. Therefore, any future growth in 4NEW plant sites will always rely on the supply of the coins being issued in this offering.

Each year management will apply 35% of its net profits towards a reinvestment strategy to enable future development of plants. This will ensure longevity and scalability to 4NEW over a sustained period of time. 4NEW Insiders and Founders will be restricted from selling any coins until January 1st, 2019.

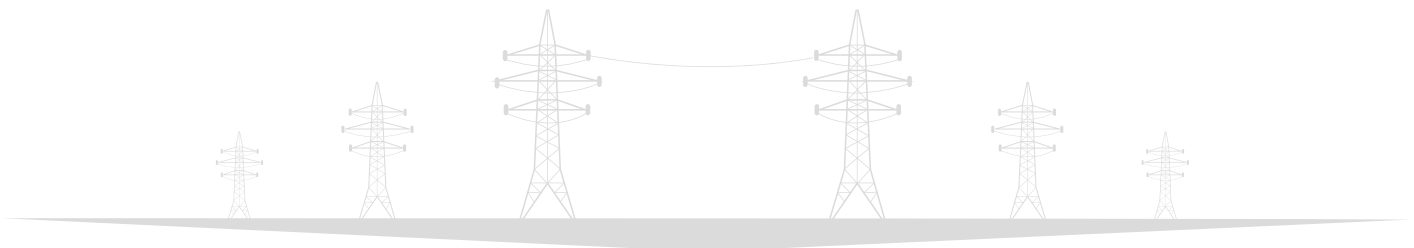
Any KWATT Coins not sold in the offering will be burned. For the avoidance of doubt, all burned coins will release the supply of the energy that was embodied within the coin, allowing that unencumbered energy to be freely sold to the UK national grid or applied towards the mining farm at management's discretion.

At the start of each year, KWATT Coin holders will be able to choose a desired application of their energy the coin holder owns as represented by the total amount of KWATT Coins in their control at the time of this election. Therefore, if the coin holders desire to sell their energy to the UK national grid then the respective option can be selected. Alternatively, if the coin holder were to select the mining farm then the energy will be applied to the mining farm. Any decisions not made within the allotted time frame at the start of each year, will leave the management the right to determine the allocation of the energy at its discretion.



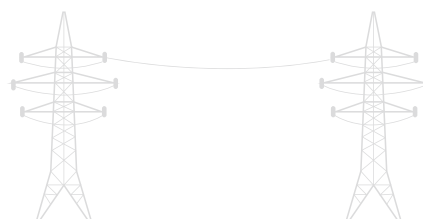
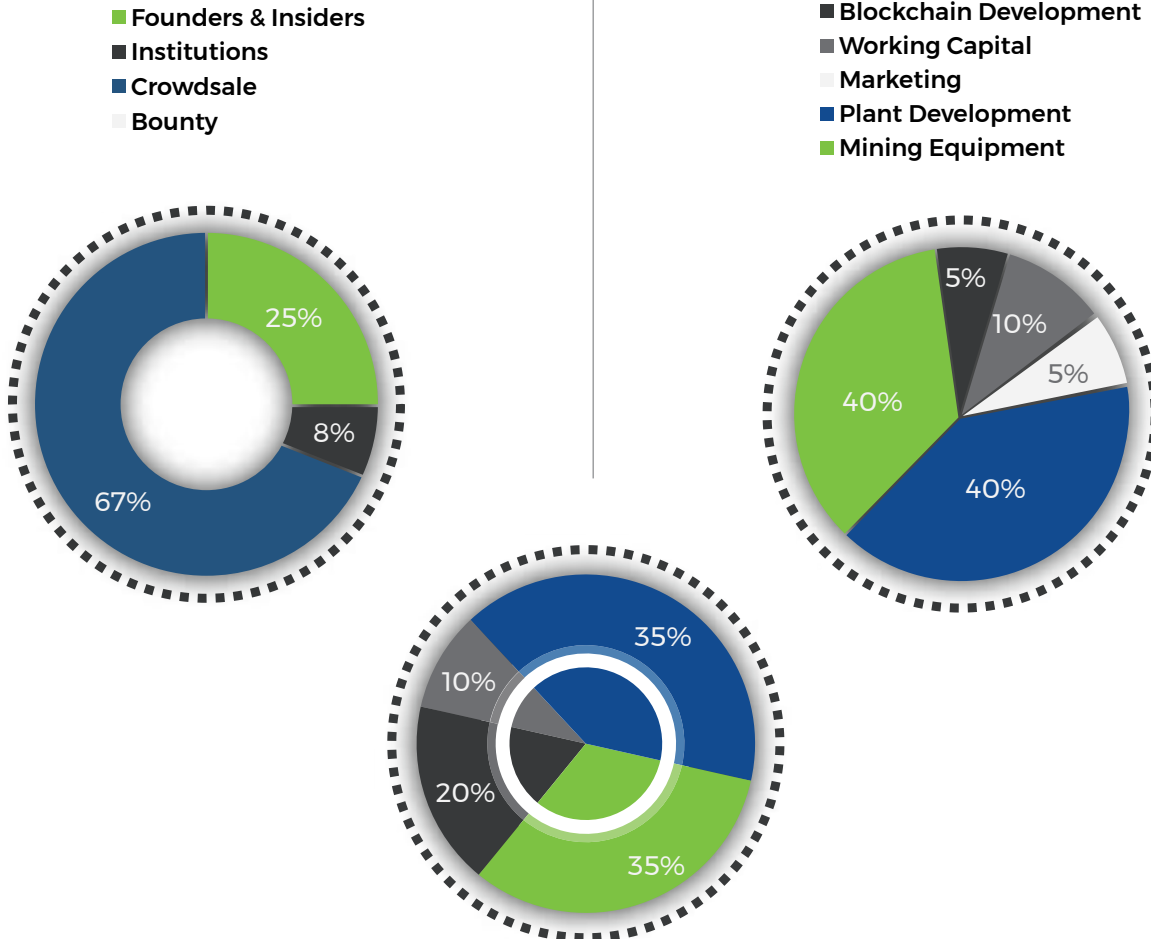
Management, at its sole discretion, may decide to extend the ICO ending date to an uncertain end date.

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## 4NEW ALLOCATION DISTRIBUTION



## MINING

4NEW mining rigs will be set up with retrofitted shipping containers. In this fashion, the shipping containers provide mobility which translates into scalability as the company grows and expands internationally.

4NEW has currently contracted prototypes already under development and scheduled for delivery in June 2018 to its plant site.

Containers can hold either up to 432 Antminers for bitcoin mining or 2675 GTX 1060 GPU for mining most cryptocurrencies

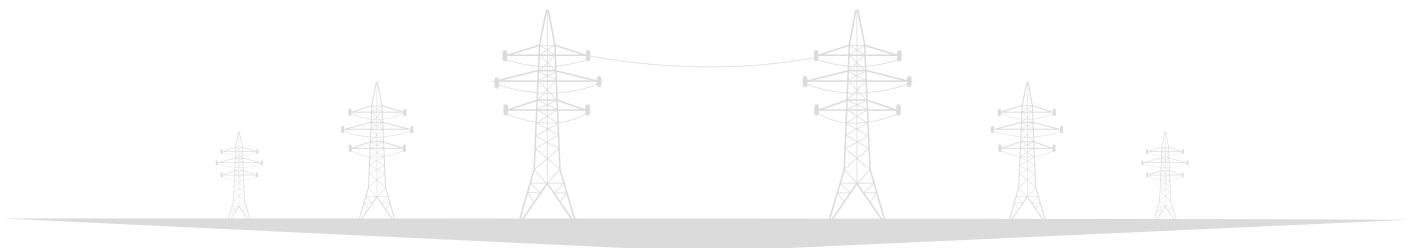
The dimensions of each container are as follows:

Width: 7'6" and 5/16  
Height: 8'4" and 11/16  
Length: 38' and 19/64

Our mining efforts will be focused on ASICS S9 Antminer ASICS and GTX 1060 GPU.

Our waste to energy power plant operates at breakeven given the revenue generated from waste collections process. Consequently, energy produced is free. This translates into a unique and significant competitive edge over all the competition even though mining difficulties are expected to rise in the near future.

Our competitive edge and first mover advantage will enable an industry wide pattern to emerge whereby production will meet consumption within the same ecosystem.



## RETURNS PER UNIT

The below returns are based on the stated assumptions and may vary widely with changing assumptions.

An interactive copy of this table is available to download, which may be requested from the 4NEW team.

	GTx 1060 6GB	ASIC Antminer S9
Unit Cost	\$400.00	\$2,000.00
Mining	Etherium	Bitcoin
Monthly Hours	666.7	666.7
Hash Rate /second	23000000	13500000000000
Watts/unit/hr	90	1375
Kilowatts/unit/hr	0.09	1.375
Kilowatt hours/month	60.0	916.7
Kgs Waste/hr usage	0.020	0.306
Tonnes Waste/hr Usage	0.000020	0.000306
Monthly Waste Income (\$)	1.60	24.44
Plant Expenditure/MWhe (\$)	12.00	12.00
Plant Expenditure/month (\$)	0.72	11.00
Electricity Cost/kWh (\$)	-0.015	-0.015
Electric Cost/hr (\$)	-0.001	-0.020
Electric Cost/month (\$)	-0.88	-13.44
Electric Cost/yr (\$)	-10.56	-161.33
Crypto Mined/month (units)	0.051	0.038
Revenue Projections /Month (\$)	48.60	365.21
Revenue Projections /yr (\$)	583.22	4382.46
Net Figure (\$)	593.78	4543.79
Payback Period (years)	0.71	0.44

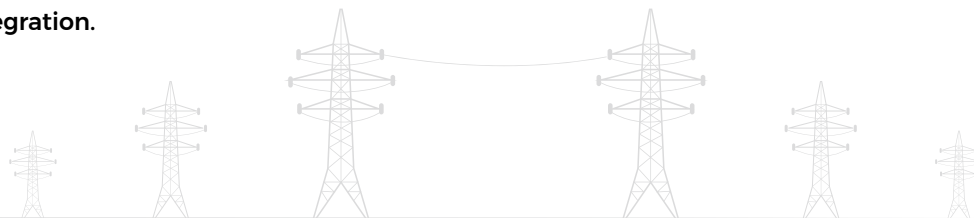
## WORKED EXAMPLE

The following example uses the stated assumptions to create a model which may be upscaled with the increased power availability, as the 4NEW model is one that may be extended continuously with added production capacity.

	GTX 1060 6GB	ASIC Antminer S9
<b>Megawatts</b>	<b>5</b>	<b>5</b>
<b>Units Supported</b>	<b>55555.5555555556</b>	<b>3636</b>
<b>Waste Incomes/yr (\$)</b>	<b>\$1,066,666.67</b>	<b>\$1,066,666.67</b>
<b>Plant Expenditures/yr (\$)</b>	<b>\$480,000.00</b>	<b>\$480,000.00</b>
<b>Electricity Cost/yr (\$)</b>	<b>-\$586,666.67</b>	<b>-\$586,666.67</b>
<b>Crypto Mined /Month</b>	<b>2842.22</b>	<b>136.91</b>
<b>Revenue Projections /Month</b>	<b>\$2,700,111.11</b>	<b>\$1,328,018.18</b>
<b>Revenue Projections /Year</b>	<b>\$32,401,333.33</b>	<b>\$15,936,218.18</b>
<b>Net Figure</b>	<b>\$32,988,000.00</b>	<b>\$16,522,884.85</b>
<b>Capital Cost</b>	<b>\$22,222,222.22</b>	<b>\$7,272,727.27</b>
<b>Payback Period</b>	<b>0.7</b>	<b>0.4</b>

## HEAT OUTPUT

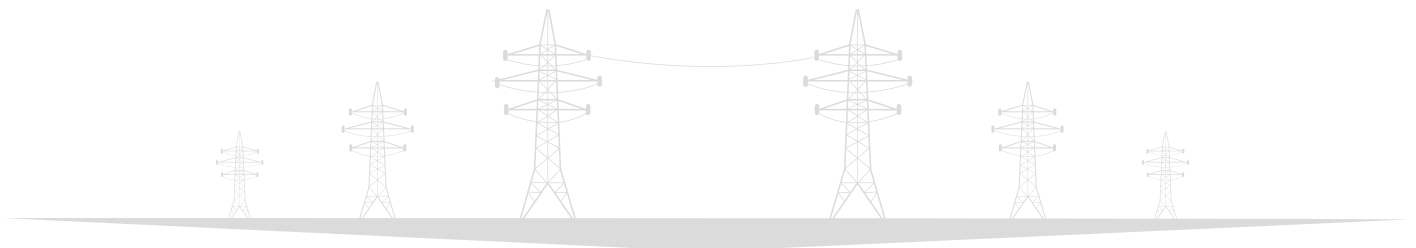
Heat output accounts for approximately 80% of the energy output of the plant, and not only reduces the effective electricity cost, it offers a negative cost, whereby all electrical outputs are created at profit through the primary operations of the plant. This can add profitability in a number of ways, though the exact mix of technologies has not been selected for each location; this will be done based on the resources and restrictions of each site. The primary uses will be absorption chilling and bioethanol production, though other heat uses are currently under advisement for potential integration.





Absorption chilling is the process by which heat produced by the cogeneration plant is used to generate chilled water for air conditioning or refrigeration by utilizing the heat to separate and recombine fluids, usually through  $\text{NH}_3\text{-H}_2\text{O}$  or  $\text{LiBr}$ ). In the first circumstance, the water acts as the absorbent while ammonia water solution acts as the refrigerant. In the second circumstance lithium bromide is the absorbent and water the refrigerant. In short, the absorption cycle dissolves this vapour in a liquid (called the absorbent), pumps the solution to a higher pressure (with much less work input than required by a compressor) and then uses heat input to evaporate the refrigerant vapour out of the solution. This has the potential to vastly reduce the energy requirement for cooling of the cabins, and therefore the associated cost.

Bioethanol production offers a highly lucrative heat offtake option in the UK. With the introduction of additional CapEx, funded through the profit allocation of the mining revenues, a bioethanol processing plant can be situated on site, which will utilize 5MW of the heat output for production of fuels, which assist in achieving the UK Renewable Transport Fuel Obligation (RTFO) policy for reducing greenhouse gas emissions from vehicles through encouraging the production of biofuels that don't damage the environment. A model of this process demonstrates that with full CapEx paid off in 2.7 years, the income retained through sale of bioalcohol, acetic acid and bioethanol leaves a net profit of \$35m per annum.



## COMPLIANCE

### ACCOUNTING

4NEW's accounting financial statements will be maintained at Zucker Forensics P.A. Zucker Forensics is a credentialed forensic accounting firm with accredited US Certified Public Accountants. With over 35 years of forensic accounting experience in identifying fraudulent accounting practices, the management at 4NEW deemed it necessary to retain such a capable team to manage its books and records.

### INDEPENDENT AUDITOR

4NEW's independent auditor is Daszkal Bolton LLP. Founded over 26 years ago, Daszkal Bolton maintains an illustrious track record of thorough audits of high growth companies in every sector. In an effort to abide by the highest ethical standards, 4NEW Management will submit to annual audits to help secure our investor's trust and confidence.

