CAPELLA COIN

CAPELLA

Smart Contract for Green Energy

CONTENTS

GIVE IT A THOUGHT!

''The future is green energy, sustainability,
Renewable energy''

- Arnold Schwarzenegger

"A nation that can't control its energy sources can't control its future"

- Barack Obama

" The choice before us is simple. Will we continue to subsidize the dirty fossil fuels of the past, or will we transition to 21st century clean, renewable energy?"

- Elizabeth Warren

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EXECUTIVE SUMMARY:

The research draws attention to the devastating fact that 1.1 billion inhabitants (17% of the world population) do not have access to electricity. The need for clean and renewable energy is taking over the world. The globe is witnessing a shift from fossil fuels to inexhaustible and clean energy. The latter does not produce greenhouse gases which is the reason for climate change nor pollutes emissions. The renewable energy is found in abundance and is diverse.

Over the years, the cost to generate renewable energy is falling at a fast rate making it affordable and attractive to all types of consumers. The wide- range of customer base include domestic, industrial, farming, corporate and industries. As reflected in statistics produced in 2015 by the International Energy Agency (IEA): they represented nearly half of all new electricity generation capacity installed in 2014, when they constituted the second biggest source of electricity worldwide, behind coal.

According to the IEA, world electricity demand will increase by 70% by 2040. National geographic states the issue on climate change - Currently, the earth's temperature has risen by an average 0.85 °C since the end of 19th century.

Renewable energy are an indispensable proponent in the fight against climate change. They do not emit greenhouse gases. They are inexhaustible and they reduce energy dependence. The entire world is relying on coal, oil, natural gas for its energy. Most renewable energy comes from the sun. Solar energy can be directly used for heating and lighting homes, generating electricity, solar cooling and a variety of commercial and industrial uses. There are other energies like geothermal and ocean energy.

The renewable energy investments are spent on materials and workmanship to build and maintain facilities, rather on expensive energy imports. Renewable energy investments are spent within the united states, frequently in the same state. This causes the energy dollars to stay home to create jobs and fuel local economies rather going overseas. On the other hand, renewable energy technologies are being sold overseas, providing a boost to the U.S Trade deficit.

INTRODUCTION:

The entire world relies on coal, oil and natural gas for its energy. In contrast the different renewable energy resources such as wind and solar energy never run out.
Renewable energy technologies are clean sources of energy that have a lower environmental impact than conventional energy technologies. Renewable energy will never run out. **Capella coin utilizes blockchain technology to adopt renewable energy. The coin will be used to buy and sell renewable energy. Capella uses smart contracts that run on Ethereum blockchain. These smart contracts mint new capella coins and incentivizes prosumers for their injected green energy. Capella coin tries to solve the existing problems of the ecosystem.**

Cryptocurrencies have taken the world by storm. These digital or virtual currencies use cryptography for security. It is rendered immune to government intervention and manipulation. The invention of cryptocurrency and blockchain technology play a vital role in technological advancement based on secure payment, peer-peer transactions and so on. Although these digital assets were criticised for not being widely used by individuals who are not into too much technology , it is decreasing on a daily basis. More and more individuals are starting to use this powerful creation for faster and safer mode of payment. While the inventor was trying to come up with concepts that will prove beneficial for all, he found this digital cash which is a peer-peer transaction. The exclusive features are an added advantage. Secure payment is the vital concept of these currencies. The enormous numbers are the key to secure payments. Cryptocurrency market is growing at an exponential rate. It is being considered a milestone in the business culture. While start-ups benefit more, these currencies have proved to be the most trusted in the market.

The first cryptocurrency to capture attention was Bitcoin, which was launched in 2009 by a group/single person under the name Satoshi Nakamoto. Cryptocurrencies make it easier to transfer funds. These transfers are facilitated through the use of private and public keys. Although cryptocurrencies are gaining popularity, not many countries are supportive of this idea. Cryptocurrencies have become the ruler of the internet. Major problems have been solved through the implementation of blockchain technology.
Capella coin tries to solve the existing problems in the economy.

Capella Coin will address the issue in the following ways:

- Capella Coin will instill blockchain based innovations to revolutionize how energy can be generated, stored, bought, sold and used at local and global level.
- The coin will build investor trust through decentralized platform which changes the energy equation and empowers individuals.
- Capella would incentivize prosumers generating energy using their own renewable resources. They will be encouraged to store the energy and sell the excess in local market place. The micro transactions will be stored on the blockchain and validated by payments made with capella coin.
- Distributed system operator (DSO) will make use of blockchain technology to get exact customer data and to balance energy demands. Capella coin can be used to pay all grid fees DSO from the Capella coins paid by the customer.

Through the blockchain technology, Capella coin users can transact in localized energy marketplaces and also between prosumers and consumers in the local marketplace. The coin will be used to :

- Buy and sell renewable energy.
- Buy and sell raw materials, machine parts, installations and equipments for renewable energy.
- Capella coin will incentivize the consumers to use renewable energy sources by bringing those offers, discounts and various other initiatives in association with Prosumers, DSO and power grids.
- A robust market place will be created for prosumers, Micro Grid Operators, DSO and consumers. The ecosystem will track excess energy, load balances and power requirements. This will ease out the process of buying and selling.
- Capella coin will build a complete trading platform for renewable energy.

COMMITMENT:

Capella utilizes smart contracts that run on Ethereum blockchain. These smart contracts mint new capella coins and incentivizes prosumers for their injected green energy. Capella coin tries to solve the existing problems of the ecosystem.

With economic growth and development, the need for a better energy resource cropped up. Renewable energy is the most wanted in the current scenario. When a group of blockchain enthusiasts got together, Capella coin emerged as a solution for the existing problems.

When individuals realised that the blockchain technology can make a huge difference in Conserving energy resources, that motivated them to create the most significant - Capella coin.

The introduction of blockchain technology diminishes the effect and cost of middleman. The goal of Capella coin is to make optimum use of blockchain technology and ease out the process for consumers and prosumers. With this approach, it becomes a cake walk for the consumers and prosumers to save, buy or store energy.

Problems that Capella Coin is addressing:

- Slower adoption of renewable energy
- No incentive model for green energy producers and users
- Centralized system
- Dependency on Fossil Fuels

Capella coin : Paving way for conservation

There are three primary components of the coin:

- A smart contract
- A currency market
- Gateway devices

The smart contract is an open-source software running on the Ethereum world computer, i.e. on the decentralized network of Ethereum nodes. It is deployed online over the Ethereum blockchain. The currency market is an exchange platform that allows users to buy and sell Capella Coins for other currencies (e.g. bitcoin, euro, dollar, etc.)

With the rising energy costs, capella coin allows to save money by buying coins at the present price which can be spent on energy in the future, when its expensive.
On a global level, Capella Coin allows anyone to invest in the energy sector by purchasing the currency and thereby increasing its value on the market. In the long run, industries can even offer discounts for green products and services purchased with Capella Coin, boosting the renewable energy economy.

Capella Coin offers faster cash flow for utilities. Instead of receiving payment for energy once a month, the blockchain-based currency can automatically pay for consumption every 15 minutes at virtually zero overhead costs. Moreover, Capella Coin lowers the costs of utilities, because they do not need to pay Prosumers for their energy. Instead, the Smart Contract mints the currency and pays Prosumers.

Capella coin reduces the need for government renewable support schemes. The Smart Contract generates new currency and rewards Prosumers for their green energy. Thus Capella Coin can save government budget without lowering the incentives for renewables.

The coin makes green energy cheaper for consumers, they have incentives to shift their consumption to periods when green energy is produced. This shift results in lower peak demand which helps stabilize the grid and minimize the stress on the grid structure.

For every 1 kWh of renewable energy consumers pay 1 Capella Coin directly to the Smart Contract. The Smart Contract then validates the reported injection of green energy by Prosumers using a variety of methods. If all reports check out, the Smart Contract mints new Capella coins and incentivizes Prosumers for their injected green energy. Prosumers can then sell those coins on a currency market, or use them to pay for green energy later on. The currency market is where consumers buy their Capella Coins from in order to pay for their consumption. When energy is paid, the associated coins are not destroyed, but remain in circulation. To prevent excessive inflation, the minting rate decreases with time.

THE VISION

Our primary goal is to incentivize all types of renewable generators, making the world a safer place. Capella offers P2P Energy Trading Platform. Also, we want the consumers and prosumers to be satisfied with buying, storing and saving energy resources.

Why is blockchain Important for Capella?

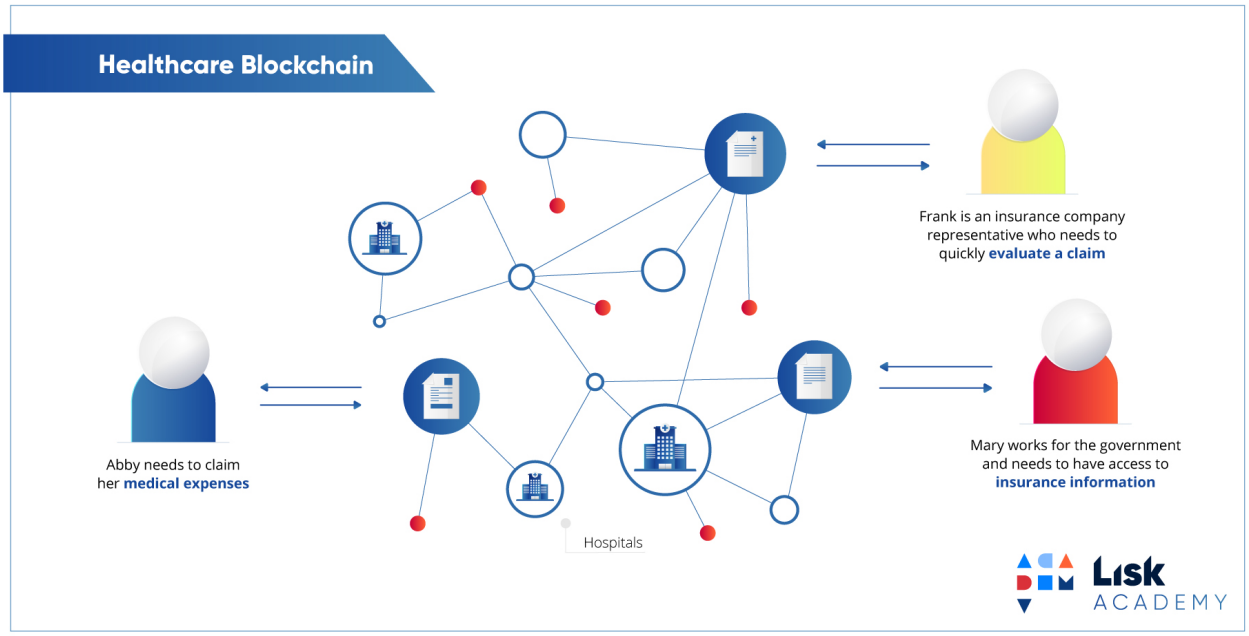
Capella Coin makes use of Smart Contracts that run on the Ethereum blockchain. A smart contract is software that runs not on a single server or a Cloud, but simultaneously on all nodes of the Ethereum world computer. Moreover, the smart contract mints new Capella Coins for green energy. These functionalities cannot be achieved without blockchain technology.
The blockchain has a huge impact on the energy sector and this is how it fits to provide the best:

Transparency:

The blockchain is transparent; the transactions and holdings of each public address is accessible to all. This aspect of the blockchain technology proves beneficial to the consumers and gives businesses a platform to act with integrity.

Trust:

There is no third-party involvement in the blockchain technology. Rules are autonomously communicated. The smart contracts instill trust amongst the users by removing uncertainty and improving services.



(Change texts accordingly)

Time Stamp:

Every transaction in the blockchain is time-stamped which means users can track back to any data they wish to see.

Distributed Ledger:

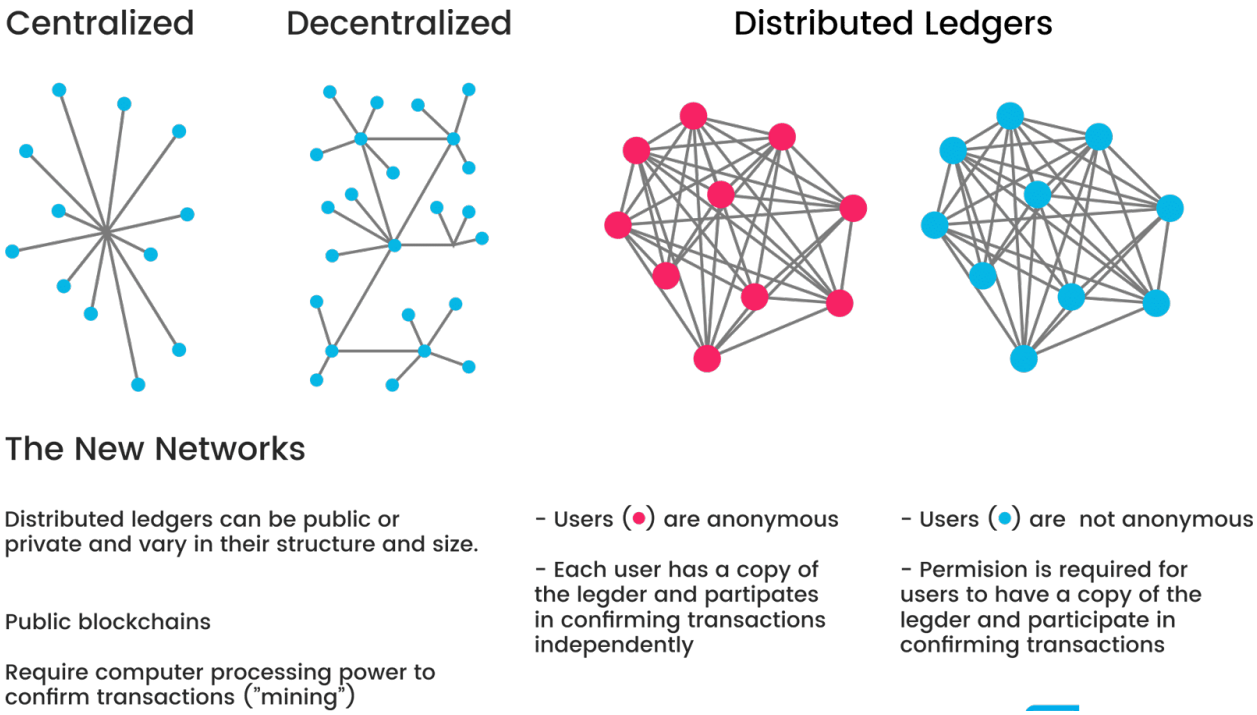
The blocks record the dealings which are then counted to form a blockchain. The blockchain serves as a public ledger that presents member information and accomplishes digital transactions.

Promotes Safer and Secure Ecosystem:

Blockchain can analyze and revise itself. This enables the self-reviewing process.

Decentralization:

It is the process of redistributing functions from a central authority. There is no involvement of third - parties which fits perfectly for the energy sector.



Capella coin combines the features of blockchain technology and renewable energy to establish a new service that will make a huge difference in the existing market.

What does Capella Offer?

Capella offers P2P Trading Platform, smart meter and community energy projects.

P2P Energy Trading Platform:

Trading renewable energy in a local marketplace will bring a shift in the way green energy is being produced and consumed. There will be more and more prosumers who will produce, consume and sell energy. The prosumers will be able to sell trade excess energy in a local marketplace with the help of our AI powered App Matrix. Consumers who are not producing renewable energy will be able to buy them from prosumers, Microgrids and also large producers. This will enable faster adoption of renewable energy and allow for renewed investor confidence.

Smart Meter:

A smart meter (SM) measures a consumer's electricity consumption and reports it automatically to a utility provider (UP) in almost real time

What are the key drivers of smart meter (and in the future smart utility) growth?

Smart meter and smart grid growth are being driven by a number of factors, including societal advances in the form of more renewable energy sources, more efficient use of generated electricity and possibly deferment of new power plants. Smart meters enhance energy optimization strategies on every scale, from consumer decisions to grid planning. Growth is being driven by these utility and consumer benefits. Smart technologies enable two-way communication between utilities and consumers through smart devices, which affords benefits to both. Utilities benefit from much more sophisticated views and control of the grid, while consumers are empowered with information to use energy in ways that best suit their priorities.

Impact of smart meters on utilities?

By deploying smart meters, utilities can reduce their O&M costs by gathering better data about situations including outages, abnormal use and non-technical losses. Utilities are then able to offer their customers new services based on their customer preferences through programs like demand response, DER (Distributed Energy Resources) management and time of use (TOU) rates. The wide variances in utility strategies, state regulatory approaches, penetration of renewables and other factors mean that some of these benefits are more suited to the needs of utilities or consumers in different geographies and energy markets.

Impact of IOT on utilities:

IoT is already having an impact on utilities and their connected customers. As more devices within the home or building become connected, the desire to interact and control the energy consumption or production of those devices increases. Solar panels and energy storage systems will be connected to utility grids using smart inverters, which allow for more visibility on the utility's part and control on the prosumer's (i.e. producer/consumer) part. In many areas, utilities will have direct communication to large energy consuming appliances, like HVAC, water heaters and even refrigerators and clothes dryers. Utilities have already been building increasing sensors, communication and processing into the grid, building out an "energy internet," for some time,

but the advances in technology will accelerate that process. Solar power continues to penetrate the grid significantly, and the complementary effect that energy
storage brings make the benefits even more appealing.

How will it get smarter?

More sensors provide insights into conditions of grid usage, equipment health and performance, and even important issues like weather conditions. Communication from these grid elements, consumer locations with smart meters, and distributed energy resources all empower a quantum elevation in the information available to understand how the grid is being used. Increasing sophistication in processing and control means that utilities can do more to manage the health of the grid instantaneously and also use more effective predictive modeling. As technological solutions continue to advance, this will be more and more effective and precise. The technological convergence of energy and information technology may offer some very interesting evolutions in how utilities change to meet the complete demands of the public, with different entrants into energy retail.

How will this benefit the customer?

Smart devices and systems allow utilities better insight into their systems and other devices connected to their systems. This way, utilities can include all the interconnected DER in their operations and planning, and evolve the relationship between utility and consumer from "interconnection" to "integration." Motivated consumers certainly can use the information to more effectively control their energy usage and costs, although the clarity of those benefits will vary based on prevailing rates, policies, and individual values and comfort with technology.

Community Energy Projects:

In the decentralised energy system there are energy resources and the trading interests maximize system value. The community together develops and benefits from sustainable energy. The involvement of energy supply projects like renewable energy installations and storage and energy reduction projects make a huge deal of difference. The community based approaches to selling and distributing energy fall under the category of community energy. The individuals are asked to involve in the green energy and not just their businesses and homes. This is expected to bring lot of benefits for the entire community.

How is Capella different from other platforms?

Capella Coin is based on the advanced Blockchain Technology which allows unprecedented transparency, decentralization, disintermediation, speed and reliability in the entire system.

With the help of the Blockchain Technology, Capella Coin aims to develop a Renewable Energy Trading Platform which will enable people to easily buy and sell renewable energy, Trading renewable energy in a local marketplace is going to bring in a paradigm shift in the way green energy is being produced and consumed. More and more people called Prosumers will produce, consume and sell energy. Prosumers can trade excess energy in a local marketplace with the help of our AI powered App Matrix. Consumers who are not producing renewable energy can buy them from Prosumers, MicroGrids and also large producers. This will enable faster adoption of renewable energy and allow for renewed investor confidence. This energy trading economy will disrupt the traditional power scenario with our App Matrix and huge number of connected devices used to exchange energy and data. The energy trading platform will see an explosion of small transactions in real time that are virtually impossible to be managed in the traditional way. With the advent of local consumer marketplace for energy, the need for the hour will be to track a huge volume of micro transactions happening at a very fast pace. Here comes the blockchain technology and the use for Capella Coin.

THE SOLUTION:

The solution we develop is based on the combination of AI Powered App and the blockchain technology. Our App Matrix will create a local marketplace more like a local Micro-Grid to allow people to exchange energy peer to peer. While the blockchain platform simplifies the management of their transactions, the actual payment for energy will be done by Capella Coin.

UTILITY VALUE:

1. Utility meter apps to provide the values of the current saved.

The process of drawing energy is alluring. When individuals need energy, the energy is drawn from the primary source and supplied to the buildings/consumers. The prosumers give energy and get Capella coins in return. Similarly, consumers can buy energy using capella coins. The incentives help in mining. This process makes capella the best platform for trading, storing and selling energy.

HOW WILL CAPELLA CREATE AN EFFICIENT, SMART AND GREEN ENERGY MARKET?

DECARBONISATION:

The improvement in residential homes and manufacturing process facilitate flexibility and support for research and development. This also improves efficiency in energy consumption. The state of the art technology helps in the formulation of subsidies and bonuses for technology development and deployment.

DECENTRALIZATION:

Blockchain and smart contract technology are decentralized medium which cannot be changed by the utility or any other individual entity. Smart Contracts and blockchain technology permits trusted peer to peer transactions between community members and allows interactions to be enriched.

DIGITIZATION:

The AI powered App will allow users to form both local and global communities and buy and sell energy seamlessly on the platform. The App will draw real time data from the connected IOT devices and would enable in smooth transactions between trades and shows predictions that allow grid and storage optimization.
Use of Smart meters reduces risk of fraud/theft and increased transparency to price changes and fees while improving cost savings and efficiency.

DEMOCRATIZATION:

The need for an active role in the energy market paved way to the rise of “prosumers”. These individuals seek to generate their own electricity from personal or shared community assets. Sometimes they purchase directly through peer-peer transactions. The production is becoming dramatic with more parties participating in the energy value proposition.

HOW DOES IT WORK?

For every 1 kWh of renewable energy consumers pay 1 Capella Coin. For every KWH of energy produced or traded the consumer will pay 1 Capella Coin towards the blockchain to confirm the transaction.

GOALS:

The company aims to make renewable energy the natural choice for the mass.
It will enable the following:

- Buy and sell equipments and raw materials in the domain of renewable energy.
- Investment in research and development of the renewable energy.
- Incentivizing new customers to use renewable energy sources.

HOW DOES IT BENEFIT PEOPLE?

The paradigm shift in the power industry is being brought by Capella Coin. Capella Coin puts the power in the hands of people in terms of renewable and clean energy generation and distributing and monetizing that energy. Capella Coin will allow billions in the world to own the power generated.

THE ROLE OF SMART GRIDS:

Complex multi-agent systems known as smart grids represent a novel paradigm for electricity networks of the future. To meet environmental targets, our dependence on fossil and nuclear fuels must be offset by increased reliance on renewable energies. The integration of small-scale renewable resources into domestic households enables consumers to become producers of green energy. These households (`prosumers') can collectively reduce their carbon footprint and dependence on fossil-fueled power plants by trading locally produced renewable energy. Incentivizing the trade of green energy is a necessary step towards the decarbonization of the power sector.

TARIFFS:

To comply with environmental targets, many energy retailers now implement feed-in tariffs to motivate prosumers to inject their own produced energy into the grid. With the growing decentralization of renewable energy production, however, these tariffs should be carefully revised to ensure a profitable and balanced grid. On the one hand, insufficient incentives to prosumers will cause slower adoption of renewable technologies. On the other, large potential economic gain from renewables could trigger overproduction of green energy, thereby causing a higher load on the power line and the waste of renewable energy and its related subsidies.

GENERATE OWN CAPELLA COINS:

The innovative aspect of our incentive mechanism is that prosumers are able to automatically generate their own Capella Coins by injecting green energy into the grid. Similar to Bitcoin, our digital currency has no central issuer. It is instead governed by a cryptographic peer-to- peer decentralized protocol running on each smart meter. For every 1 kWh of injected energy, the prosumer earns 1 Capella Coin with which she can purchase energy at any time in the future, regardless of the cost of energy at the time. Prosumers can also sell their coins on Forex-like markets to consumers who can in turn use the currency to pay their energy consumption to the retailer. The monetary value of the currency is determined by free market forces, following the principle of supply and demand.

Our approach incentivizes consumers to use the cheap renewable energy when it is available and rewards prosumers for injecting energy when it is needed, thereby reducing the requirement to fire up emergency coal or gas peak-power generators, which are costly and polluting.

CAPELLA TOKENS:

Total Supply- 2,000,000,000
ICO Token Sale- 40%
Presale- 6%
Team and Founders- 20%
Future Release- 25%
Market Making- 5%
Advisors -2%
Bounty-2%

Soft Cap – 5 million USD
No Hard Cap

USE OF PROCEEDS: (PIE CHART)

- Expansion of operations – 25% of received funds. Develop infrastructure, raise the operational scalability and expand the team.
- 10% will be used to expand our subscriber base and brand presence across the Globe.
- 20% will be used for Technical Development- Building the Trading App for Energy Marketplace and Building a complete trading platform for Green energy trading.
- 20% will be used for investment in research and development of Green Energy Projects in various across the Globe
- 5% will be used in spreading awareness and benefits of using renewable energy across the Globe through Seminars, Meetings, Social Media, Podcasts, and Webinars thus encouraging Prosumers to generate more power and sell on a distributed environment.
- 20% would be used to Install and execute Solar Power Generation Projects in rural areas, mega crypto-mining rigs, rural and semi-urban village micro-grids.

VALUE OF CAPELLA COIN - 50 Cents

TOKENIZING RENEWABLE ENERGY:

By tokenizing renewable energy and putting it onto a blockchain, Capella is making power tradable and accessible to anyone. Capella provides people huge incentives and more control. In effect, people taking contracts on Capella, become their own energy traders.

In the Matrix, also called the local marketplace, the prosumers generate energy through their resource. The resource will be incentivized and will be able to sell energy to consumers. Capella will bring offers, discounts and various other initiatives in associaton with the prosumers, DSO and power grids. The renewable energy is connected to the capella platform and the future energy production is tokenized. The energy is tokenized based on I kWh unit. One capella energy token represents 1 kWh to be produced a certain time in the future.

A portion of the energy can be sold to make the initial investment in the renewable energy project. The internal energy tokens are acquired by the buyer/investor. The token acts as a smart contract indicating 1) type of energy, 2) timestamp when the energy will be produced and delivered; 3) price tag. A standard power purchase agreement is executed between the renewable energy producer and energy buyer.

POWER TO PRODUCERS AND CONSUMERS:

Capella will offer blockchain energy applications like power trading application that allows businesses, such as Utilities, to host trading on the Platform. Blockchain technology provides a transparent, auditable and automated market trading and clearing mechanism for the benefit of producers and consumers. Our technology enables the sale of surplus renewable energy generated at residential and commercial developments connected to existing electricity distribution networks, or within micro-grids. Capella puts the power to manage the energy economy into the hands of consumers, while maintaining the value of existing distribution networks. Capella allows for each unit of electricity to be tracked from the point of generation to the
point of consumption using the Local Marketplace App Matrix distribution network.

The energy is tracked and coupled with a financial one where the blockchain technology is of help. The authority is vested in the hands of energy asset owners which allows them to decide to who and how much do they wish to sell the surplus energy to. The producers and consumers of renewable energy will be incentivized by capella. The incentivizing helps produce more green energy. This means that the user will be paying for the actual green energy that is used and not just the green certificates. Capella Coin is claimed by individuals living in homes with renewable energy production assets or by commercial renewable energy producers. The renewable energy does not emit excess heat into the atmosphere. Capella's goal is to produce an incentive to produce more renewable energy globally by rewarding the generators. Capella coin offers a decentralised platform for green energy trading by aiding to the reduction of green energy costs.

ROADMAP:

Q4 2016- Germination of Idea

Q1 and Q2 2017- Identification and Formation of Team and Joining of Team Members

Q3 2017- Ideation complete and Business Plan finalized

Q4 2017- 1st round of Angel Investing completed- We raised 1, 25,000 USD
Started developing Capella Coin and Capella Ecosystem

Q1 2018- 1st Urban Community Solar Project Identified and Implemented and transactions registered.
2nd Rural Community Project Identified and Implemented and transactions registered
2nd round of Angel Investing completed- We raised 50,000 USD

Q2 2018 - WE ARE HERE

- Capella Coin Creation completed
- Beta smart-contract platform developed.
- Support and verification team formed.
- Basic KYC framework developed.

Q3- 2018

- Token Private Pre Sale
- Token Public pre Sale
- ICO Token Sale
- Capella Coin Listed on major exchanges

Q4-2018

- Development of Marketplace and Trading App
- Identification and implementation of Community Projects in India, East Africa, Nepal, Bangladesh, South East Asian Countries.

Q1 2019

- Marketplace and Trading App launched in Europe and remaining Asia.
- App distribution agreements extended to additional regions.
- Beta open API developed.
- Formation of Green Bench and benchmarking research Projects for investment
- Regular Seminars, Webinars and Podcasts from our team and Advisors educating people about Renewable energy and the benefits of adopting renewable energy.

Q2 2019

- Rural electrification Projects in Underdeveloped and Developing countries
- Launch in North America, Middle East and South Korea.
- More Community Energy Projects identified and implemented across operations area.

Q3 2019

- Beta Artificial Intelligence App Developed
- Open API available for developers.
- Launch in Latin America.
- Full AI-screening tool rolled out along with partnerships with Grid and Utilities

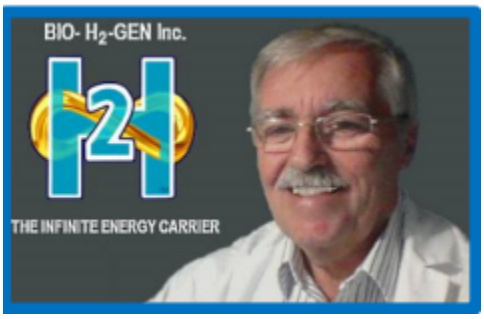
Q4 2019

- AI App Matrix roll out complete with Big data and analytics
- Complete automation of all communities and seamless integration with the AI App Matrix within the Capella Ecosystem
- Start Government lobbying in various countries for Government aided projects

2020 - 2022

- Organic growth of the platform.
- Strategic Partnerships with Government, Quasi Government and Private players for mass rollout of Renewable energy Projects and Research initiatives
- Strategic partnerships with non-crypto online marketplaces for renewable energy related equipments to enrich customer experience.
- Ongoing improvements of technology to enhance marketplace experience
- Significant reduction of Carbon Footprints
- Aiming transactions worth 5 billion USD through our Marketplace and Energy Trading App.

TEAM BEHIND THE VISION:



WILLIAM CHARLES KNAPP

A scientist, Inventor, co-founder, president and CEO of BIO-H2-GEN Inc.
Mr.William has been in the field as a senior product development specialist with a experience of 37 years in R&D. He successfully applies the knowledge gained from pertinent courses. Setting an example, Mr.William has stepped forward to help save nature.

RESEARCH DETAILS:

Mr. William Charles has worked on countless experiments and classes including rheology of polymers, physical properties of polymers, Scanning electron microscopy and morphology of filled polymers. In addition to these, he conceived and developed patented medical systems. A proficient in system control and data acquisition, he acquired expertise in novel pilot plant construction and operation. He was also involved with the design and construction of a fume hood pilot facility to monitor and analyse Nafion membrane candidates used in PEM fuel cell development. Most of his time was spent developing innovative technologies which have been patented world-wide.

EMPLOYMENT:

Mr. William was elected for three terms as Alderman for the city of kingston, Ontario. He maintained employment with Dupont Canada R&D during those three terms.

EDUCATION:

Over the years, he undertook various courses including Applied statistics, organic chemistry, Rheology and Physical Properties of Polymers, Computer Programming, Nuclear Magnetic Resonance and more.

PUBLICATIONS AND INTELLECTUAL PROPERTY:

- Method for producing hydrogen gas from Aqueous hydrogen sulphide
- Skin Perfusion Evaluation Apparatus
- Support system for reducing formation of “Decubitus Ulcers”
- Journal of applied Polymer Science
- Mercury sealable plug

LinkedIn: https://ca.linkedin.com/in/william-knapp-445a3084

SEBASTIAN PERTL

Mr. Sebastian has completed his M.Sc in Electrical Engineering and information Technology. His unfathomable love for nature has brought him into the project. He focuses on environment and energy transition for the goal of 100% renewable energies. Having worked on numerous Research Papers, Mr. Sebastian possesses expert knowledge and is keen on saving the environment.

WORK EXPERIENCE:

Mr. Sebastian was responsible for collecting and analyzing all the data of energy production of the Green City Energy Plants, with PV. Wind power, biogas and hydro power. He was also responsible for handling the electricity tax and few other responsibilities of German electricity lawas like EEG and EnWG.
Later, he went on to work on building up the new brand of the green electricity tariff “Green city power” for Green city energy.

His field of interest include :

- Power engineering
- Renewable energy generation and distribution
- Market and system integration of renewable energies
- Direct marketing of renewable energies in Germany
- Electricity markets
- Decentralized energy supply
- Microgrids/ Hybrid systems
- Smart meter rollout in Germany

RESEARCH PAPERS:

- Master Thesis: Green electricity tariffs and their benefits for the achievement of the energy transition targets in Germany
- Direct marketing with market premium in Germany
- Bachelor thesis: Developing Software for control, Monitoring, Data Acquisition and processing for application in a Test Hybrid System using LabVIEW.

Linkedin Profile: https://www.linkedin.com/in/sebastian-pertl/

SEAN WHITE

Mr. Sean has been a professor and consultant about Solar PV for over 10 years. He educates people on advanced aspects of design, installation and sales of solar PV projects. His undying passion to save the earth from harmful sources has led him to be a part of this project.

EDUCATION:

California State Long Beach
University of California Berkeley
Life chiropractic college West

WORK EXPERIENCE:

Teaching and Consulting about Solar PV around the world full time for 10 years.

RESEARCH:

Mr. Sean educates people on the basics and advanced aspects of design installation and sales of solar PV Projects.

BOOKS:

- Solar Photovoltaic Basics
- Solar PV Engineering and Installation
- Solar PV Technical Sales
- Photovoltaic systems and the National Electric code

Linkedin https://www.linkedin.com/in/seanwhitedc/

JEEBAN SHRESTHA

Working in the biogas sector since 1996, Mr. Jeeban has done more than 36 biogas installation projects. His interest in research of biogas has led him to be a part of this huge project.

WORK EXPERIENCE:

Mr. Jeeban has worked in biogas sector since 1996. He has done more than 36 project of biogas installation, well known of GGC model, floating dome model, Deenbandhu model, plug flow model, bag digester, and CSTR model.

ENRICO CAPPANERA

Mr. Enrico has huge experience in the field of renewable energies. As a CEO, he has work experience in photovoltaic, wind, geothermal, green building and electric mobility. His expertise in this field has brought him to this project. His duties include email advises, guiding the capella team toward newer renewable energy concepts, research and opportunities.