



# SolarMineX

Cryptocurrency mining with mobile  
and photovoltaic system.



Turn the energy comes from  
the sun to SolarMineX token  
and get mining reward.

# CONTENTS

INTRODUCTION	3
ENVIROMENTAL DAMAGES OF CLASSICAL CRYPTO AND BITCOIN MINING	4
PROBLEM	5
SOLUTION	5
SOLAR ENERGY	6
DESIGN OF SOLAR POWERED SYSTEMS	8
ABOUT SOLARMINEX?	13
WHAT IS SOLARMINEX?	14
HOW TO MINE WITH SOLARMINEX?	14
SOLARMINEX MOBILE SOLAR MINING PANEL	15
PHOTOVOLTAIC SOLAR MINING SYSTEM	16
SOLARMINEX PRE MINING MOBILE APPLICATION	17
TOKENOMICS	18
ROADMAP	19
SOLARMINEX TEAM	20
SOCIAL MEDIA ACCOUNTS	21

# INTRODUCTION

Today, cryptocurrency mining is generally based on energy obtained from fossil energy sources. As a result of the interest and demand for cryptocurrencies, crypto money has been produced in less units with more energy.

Apart from cryptocurrency mining, there are different factors that increase electricity consumption. The energy needs in developed and developing countries cause a faster increase in primary energy consumption worldwide due to people's lifestyles, increasing consumption habits and the development of industry. The increase in energy need day by day depending on the world population and technological developments and the continuation of the use of fossil energy sources despite the decrease in the use of fossil energy sources play a major role in the increase in global warming. In this context, meeting the energy need by renewable energy sources is important for reducing the speed and effects of global warming.

Solar energy, one of the renewable energy sources; it stands out among other renewable energy sources due to its ease of installation and easy integration into small and large systems. The light energy from the sun is directly converted into electrical energy by photovoltaic solar panels. In addition, greenhouse gases, which have the most negative impact on global warming, are not released during electricity generation from solar energy.

On the other hand, conscious approaches to the production and use of energy are increasing, the demand for the use of solar energy is increasing and the damages caused by fossil energy sources to the world are known.

# **ENVIRONMENTAL DAMAGES OF CLASSICAL CRYPTO AND BITCOIN MINING**

Bitcoin, the most widely known cryptocurrency, uses 121 Terawatt-hours of electricity every year. The Bitcoin cryptocurrency network consumes more electrical energy than the entire country of Argentina. According to Digiconomist, a cryptocurrency analytics website, the Ethereum network uses as much power as the entire nation of Qatar.

One of the biggest concerns is that while the price of the cryptocurrency increases, mining tends to become less efficient. In the case of Bitcoin, the mathematical algorithms used to create blocks become more difficult to make while the price increases, but the volume of transactions remains constant. This means that over time the network will consume more computing power and energy to process the same number of transactions.

For these reasons, cryptocurrencies are associated with fossil fuels. According to a study by the University of Cambridge, about 65% of Bitcoin mining takes place in China, a country that generates most of its electricity by burning coal.

Despite the damage they cause to the world, coal and other fossil fuels continue to be important worldwide for both cryptocurrency mining operations and other industries. According to a report by CNBC, bitcoin mining causes about 35.95 million tons of carbon dioxide emissions each year. The amount of the emission is about the total emissions produced by New Zealand nationwide. In summary, crypto mining has a negative impact on the rapid change in global climate conditions and the energy supply-demand balance.

SolarMineX will contribute to the production of renewable and sustainable energy by mining cryptocurrencies while generating profits for its miners and investors. These contributions will reduce the negative effects of fossil energy sources on nature.

## **PROBLEM**

The continuation of the use of fossil energy sources, despite the decrease, plays a major role in the increase in global warming. While meeting the electricity needs of the modern world, irreparable damages are given to nature and the environment.

The fact that cryptocurrency mining causes consumption close to the total electrical energy consumed by some countries brings with it the requirements for renewable and sustainable solutions in this area.

## **SOLUTION**

Thanks to the electrical energy produced from solar energy, which is a renewable energy source, investments made according to the amount of production will be an example in the cryptocurrency mining field and the investments, made in this field will be more nature friendly. The solution, offered by SolarMineX to increase the production of electricity obtained from solar energy and to reduce the consumption of electricity, is to encourage people to increase the amount of using electrical energy produced from the sun, by giving them reward depending on using the energy that is produced from the sun.

# SOLAR ENERGY

Global warming is increasing rapidly today, unfortunately mostly because of humans. Especially in the last century, as a result of the intense use of energy obtained from fossil sources, climate change has accelerated to a great extent. The resulting greenhouse gas emissions have caused intense environmental pollution by increasing the carbon dioxide (CO<sub>2</sub>) concentration in nature. With the increase of climate change, the average temperatures in the world will increase, heavy precipitation will occur in some regions due to excessive evaporation, and drought will be seen in others. With much greater global warming occurring, the oceans will warm, glaciers will melt, and sea levels will rise. As a result of climate change, fires, floods and droughts caused by extreme temperatures will occur. In this case, the soil will change and there will be crop losses.

As a result of the environmental damage caused by the use of fossil energy sources, the use of renewable energy sources is increasing worldwide. It is predicted that the electrical energy produced from renewable energy sources will increase by 30% by the end of 2021.

Solar energy, which is one of the renewable energy sources, shows a worldwide increase, especially in electrical energy production. Accordingly, the market share of solar energy has gained momentum especially in the last 10 years [Figure 1]. It is expected that the electrical energy obtained from solar energy will increase by about 18% (approximately 145 TWh) and reach 1000 TWh capacity in 2021.

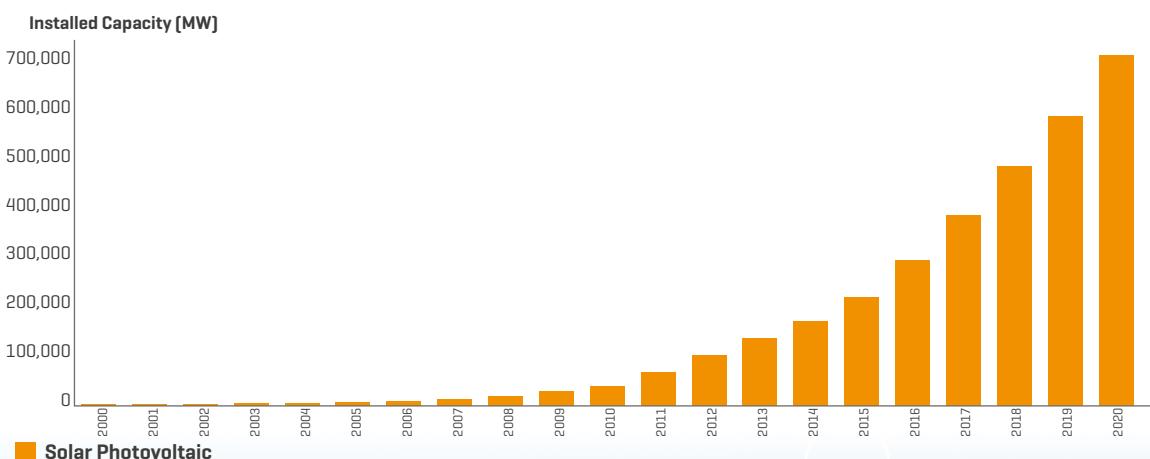


FIGURE 1 GLOBAL SOLAR ENERGY CAPACITY (2000-2020)

One of the most important reasons why electric energy generation from photovoltaic panels has become popular is that it can be integrated more easily into systems compared to other renewable energy sources. PV system can be installed by making various designs in open lands and buildings.

Photovoltaic panels are a clean energy source as they do not generate greenhouse gas emissions when using them. It is also advantageous that solar energy can be accessed at any location during certain hours during the day. For example, the average energy production in wind energy is a matter of uncertainty, however it is quite possible to estimate the average energy in solar energy. The maintenance and operating costs of PV panels are very low compared to other renewable energy sources. They are suitable for use in residential areas because they don't make loud noises.

With the rapid increase in the use of PV panels, the competition in the market is also increasing. As a result, PV panel costs are gradually decreasing. This situation creates positive scenarios for the future of environmental sustainability.

## **DESIGN of SOLAR POWERED SYSTEMS**

In SolaMineX project, 1 kWh of energy production using photovoltaic systems will be rewarded with 1 SolarMineX Token. People will have an idea about the amount of PV energy production according to the climatic characteristics of the location, sample cities from different continents, and the number of panels required for 1 kWh energy need per day [depending on the selected PV panel]. Researches are done to ensure that cities in the selected countries had different solar radiation levels. In this section, you can find technical information about the required number of photovoltaic panels, annual energy production [kWh] by checking the results obtained for your location or cities with climatic conditions close to your location.

In the design of solar energy systems; The most important parameters are the daily energy amount, the power of the solar panel, its efficiency and the amount of solar radiation that comes to the location where the system will be used. Solar radiation varies according to years, seasons, months and location. For this reason, the periods and locations where the system will be used should be considered for solar energy system measuring.

Required number of panels and annual energy production are given below, by using the solar radiation records of some cities selected from Europe, North America and Asia. In the table below, monthly average radiation amounts for different cities in Europe are given [Table 1].

AVERAGE	London Hd	Lisbon Hd	Barcelona Hd	Paris Hd	Milano Hd	Berlin Hd	Vienna Hd	Moscow Hd	Copenhagen Hd	Stockholm Hd	Istanbul Hd
IRRADIATIONS	(kWh/m <sup>2</sup> )										
<b>January</b>	1.39	3.52	3.88	1.37	2.11	1.02	1.41	0.85	1.0	0.96	2.27
<b>February</b>	2.18	4.67	4.85	2.31	3.62	1.88	2.59	1.7	1.65	1.93	2.95
<b>March</b>	3.67	5.75	6.01	4.01	5.05	3.59	4.09	3.35	3.92	4.33	4.45
<b>April</b>	4.91	6.04	5.96	5.19	5.35	5.08	5.52	4.6	5.34	5.47	5.38
<b>May</b>	5.13	6.45	6.46	5.28	6.06	5.33	5.59	5.41	5.59	6.02	6.5
<b>June</b>	5.38	6.79	6.74	5.6	6.45	5.56	5.6	5.46	5.69	6.05	6.94
<b>July</b>	5.36	7.1	6.88	5.65	6.98	5.27	5.7	5.35	5.55	5.65	7.31
<b>August</b>	4.7	7.11	6.58	5.21	6.34	4.86	5.42	4.55	4.87	5.02	6.97
<b>September</b>	4.11	6.46	5.91	4.54	5.43	3.99	4.37	3.09	4.15	4.01	5.7
<b>October</b>	2.8	5.23	5.11	2.93	3.55	2.61	3.08	1.62	2.6	2.29	4.18
<b>November</b>	1.8	3.98	3.97	1.62	2.31	1.3	1.61	0.66	1.12	1.16	3.01
<b>December</b>	1.26	3.33	3.67	1.3	1.99	0.84	1.2	0.46	0.72	0.76	2.02
<b>Yearly</b>	<b>3.56</b>	<b>5.54</b>	<b>5.51</b>	<b>3.76</b>	<b>4.61</b>	<b>3.45</b>	<b>3.85</b>	<b>3.1</b>	<b>3.53</b>	<b>3.65</b>	<b>4.82</b>

Table 1. Solar Radiation Amounts for Different Cities in Europe

A sample PV panel selection was made for the daily 1 kWh energy requirement, the energy to be obtained from the PV system and the required system sizing. Sample PV panel has 325 Wp power and 19% efficiency. While sizing the PV panel, the radiation value of the month was the lowest radiation of the year and this value is taken as reference. In Figure 2, the required number of PV panels has been determined by considering the amount of solar radiation in some cities in Europe.

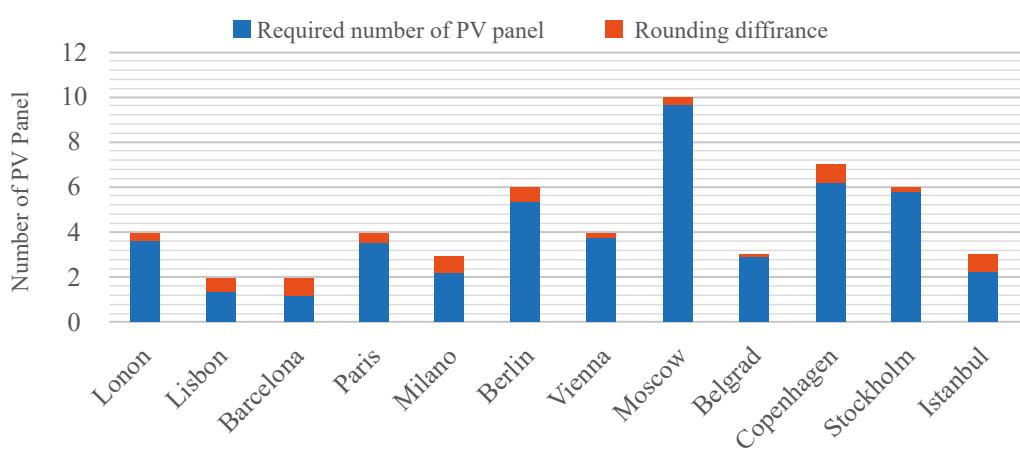


Figure 2 Number of PV panel for the cities in Europe

The annual energy production amount and the number of the panels for this for the cities in Europe is given in Figure 3. In cities with lower solar radiation, more energy was produced because more PV panels were needed.

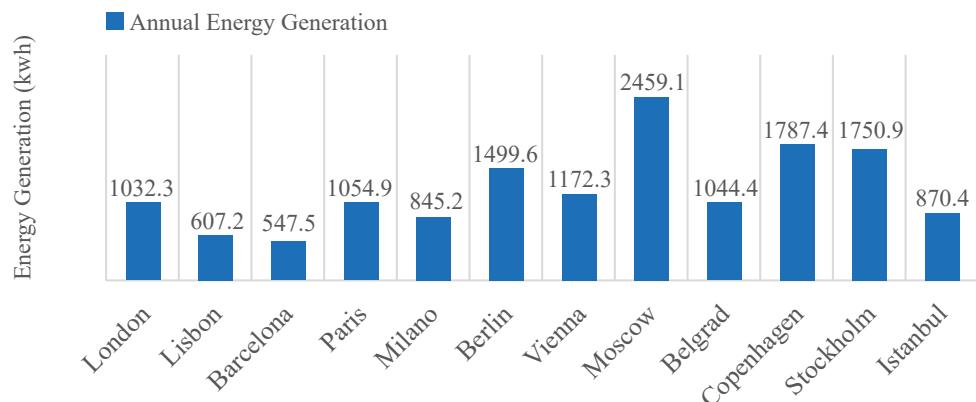


Figure 3 Annual Energy Generation based on December irradiations for the cities in Europe

The table below shows the monthly average irradiance amounts for different cities in North America. [Table 2].

AVERAGE IRRADIATIONS	Washington	New York	California City	Oklahoma	Los Angeles
January	3.43	3.02	3.44	4.57	5.03
February	4.28	3.62	4.96	5.31	6.04
March	4.77	4.15	6.78	5.64	6.82
April	5.58	5.03	7.41	5.58	6.97
May	6.29	5.80	6.93	4.80	5.59
June	5.11	5.12	7.36	6.50	6.09
July	5.68	5.86	7.20	6.33	6.32
August	6.05	6.43	7.37	6.05	7.02
September	5.24	5.46	6.69	6.32	6.88
October	4.82	4.33	5.86	5.45	5.81
November	3.89	3.38	5.29	4.81	6.33
December	2.89	2.17	3.85	4.44	5.16
Yearly	<b>4.84</b>	<b>4.53</b>	<b>6.09</b>	<b>5.48</b>	<b>6.17</b>

Table 2 Solar Irradiance Amounts for Different Cities in North America

In Figure 4, the required number of PV panels has been decided by considering the amount of solar radiation in some cities in North America.

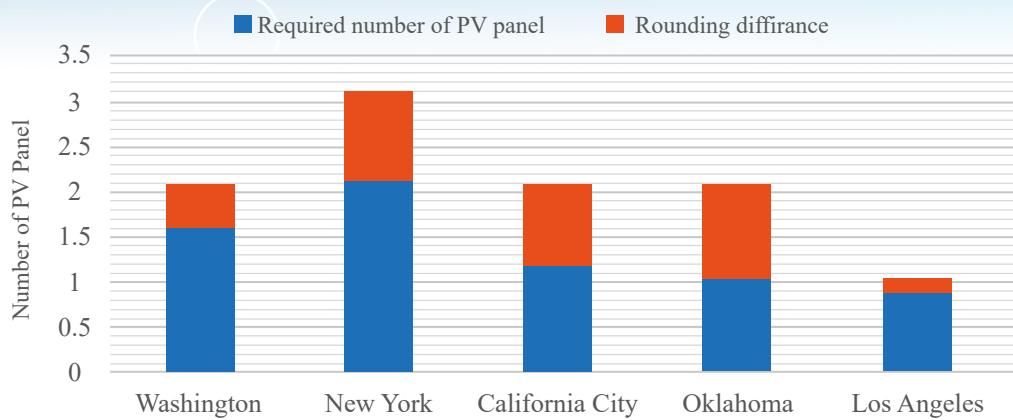


Figure 4 Number of PV panel for the cities in North America

The annual energy production amount and the number of panels in the cities in North America is given in Figure 5.



Figure 4 Number of PV panel for the cities in North America

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AVERAGE IRRADIATIONS	Bangkok Hd (kWh/m <sup>2</sup> )	Delhi Hd (kWh/m <sup>2</sup> )	Hanoi Hd (kWh/m <sup>2</sup> )	Singapore Hd (kWh/m <sup>2</sup> )	Xian Hd (kWh/m <sup>2</sup> )
January	6.01	4.52	2.42	5.18	4.61
February	6.74	6.40	3.66	6.17	5.09
March	6.60	6.48	3.36	5.63	4.89
April	6.95	6.95	4.78	5.28	4.52
May	6.08	6.39	4.72	4.46	4.98
June	5.03	6.02	5.48	4.64	5.20
July	5.09	4.95	5.09	4.59	4.81
August	5.40	5.03	4.62	4.72	3.68
September	5.11	6.69	4.74	5.01	4.56
October	5.38	6.30	4.19	4.78	4.20
November	5.70	5.74	3.22	4.56	5.44
December	5.52	4.95	3.75	4.67	4.68
Yearly	<b>5.80</b>	<b>5.87</b>	<b>4.17</b>	<b>4.97</b>	<b>4.72</b>

Table 3 Solar Radiation Amounts for Different Cities in Asia

In Figure 6, the required number of PV panels has been decided by considering the amount of solar radiation in some cities in Asia.

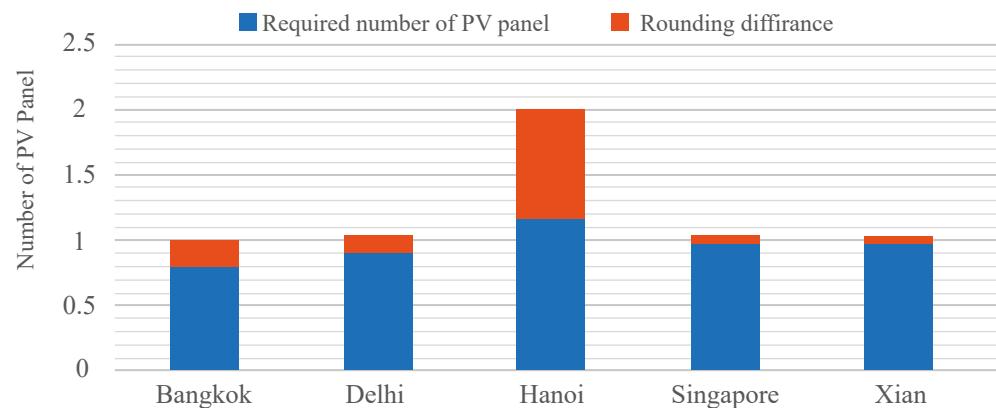


Figure 6 Number of PV panel for the cities in Asia

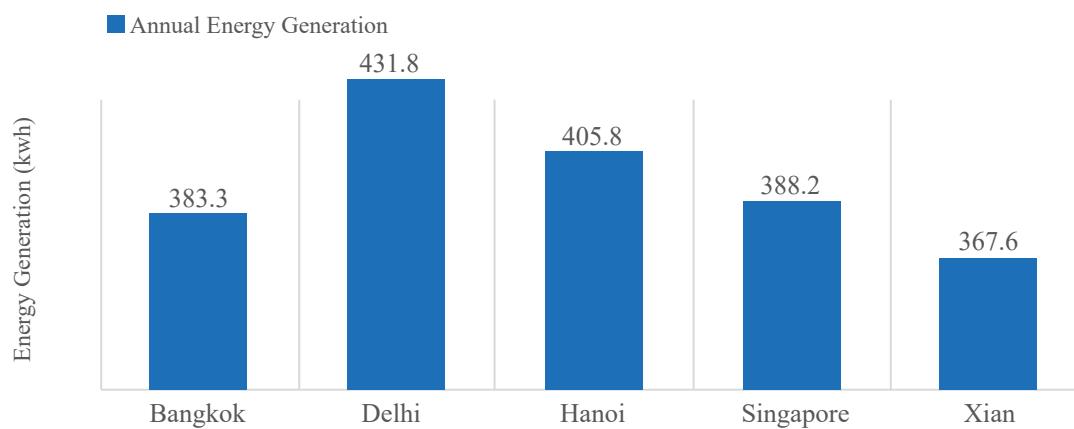


Figure 7 Annual Energy Generation based on December irradiations for the cities in Asia

## **ABOUT SOLARMINEX?**

SolarMineX project is integrating electricity generation from solar energy with crypto money as a starting point. In this direction, it is aimed to minimize the use of fossil energy resources, to reduce the negative effects of these resources on the world, and to reduce the monopolizing and harmful effects of crypto currency mining on the environment. Thus, it is aimed to contribute to the environment and economy by ensuring the widespread use of renewable energy.

As a result, with SolarMineX mining, it is possible to earn tokens depending on the energy you will produce from photovoltaic solar panels. Thanks to the project, miners will contribute to the reduction of environmental pollution and global warming when earning income.

## **WHAT IS SOLARMINEX?**

It is a blockchain project in which mining rewards are given according to the amount of electricity produced from solar energy. In this type of mining, there is no need for graphics cards, processors or mining rigs or electricity consumed for their operation. In SolarMineX mining, electricity is not spent on the contrary electricity is produced to earn the mining reward. Mining rewards are earned according to the amount of electricity produced.

## **HOW TO MINE WITH SOLARMINEX?**

Mining with SolarMineX will have two options. People who want to do mining can use one of these ways, or they can use both and increase their mining income.

Mining earnings will be calculated based on electrical energy generated by the SolarMineX Mobile Solar Mining Panel or the miners' own photovoltaic systems. SolarMineX Mobile Charger is designed for charging devices such as phones, tablets and power banks.

## SOLARMINEX MOBILE SOLAR MINING PANEL

For each unit of energy produced by the miners' mobile or photovoltaic systems, 1 SolarMineX Token will be credited to the miners' account as a mining reward.

With SolarMineX's mobile solar mining panel, SolarMineX Token can be mined using the sun's rays at any time and place. In SolarMineX mobile solar mining, the detection of energy production depends on wifi or bluetooth technology. In cases where data transfer via Wi-Fi or bluetooth is possible, mining income will be instantly recorded in the database. However, with the mobile application that SolarMineX whole process will be easily managed by miners.

Sometimes Wi-Fi or Bluetooth access is not possible. In this case, the internal memory of the mobile panel will be activated. Thanks to these features, the current panel can be followed any time miners want and the records can be kept in the internal memory. When they have Wi-Fi or Bluetooth access, the information in the internal memory is synchronized with the smartphone application and the mining rewards will be shown in the miner's account.

With the SolarMineX Mobile Solar Mining Device, mining can be done while traveling by car or public transportation, while spending time in a cafe or restaurant, enjoying swimming in the sea or in the pool, in short, anywhere there is sunlight and the SolarMineX Mobile Solar Mining Device. Also, with the SolarMineX mobile application this whole process will be easily managed by miners.

# **PHOTOVOLTAIC SOLAR MINING SYSTEM**

The fact that miners produce energy in any area such as home, workplace, any place with a photovoltaic system is enough to receive the SolarMineX mining award. With the permission of the miners, the amount of energy produced will be controlled from the SolarMineX network by using the remote monitoring method and it will be possible to monitor the earnings.

## **Mission:**

To establish a secure and effective network with a decentralized structure that is environmentally friendly, beneficial to society, using solar energy in crypto currency mining.

## **Vision:**

To create permanent benefits by pioneering the transition to mining based on renewable energy sources, unlike the classical crypto currency mining, which is widely used in the world, and to make a difference between cryptocurrencies with environmental goals.

## **SOLARMINEX PRE MINING MOBILE APPLICATION**

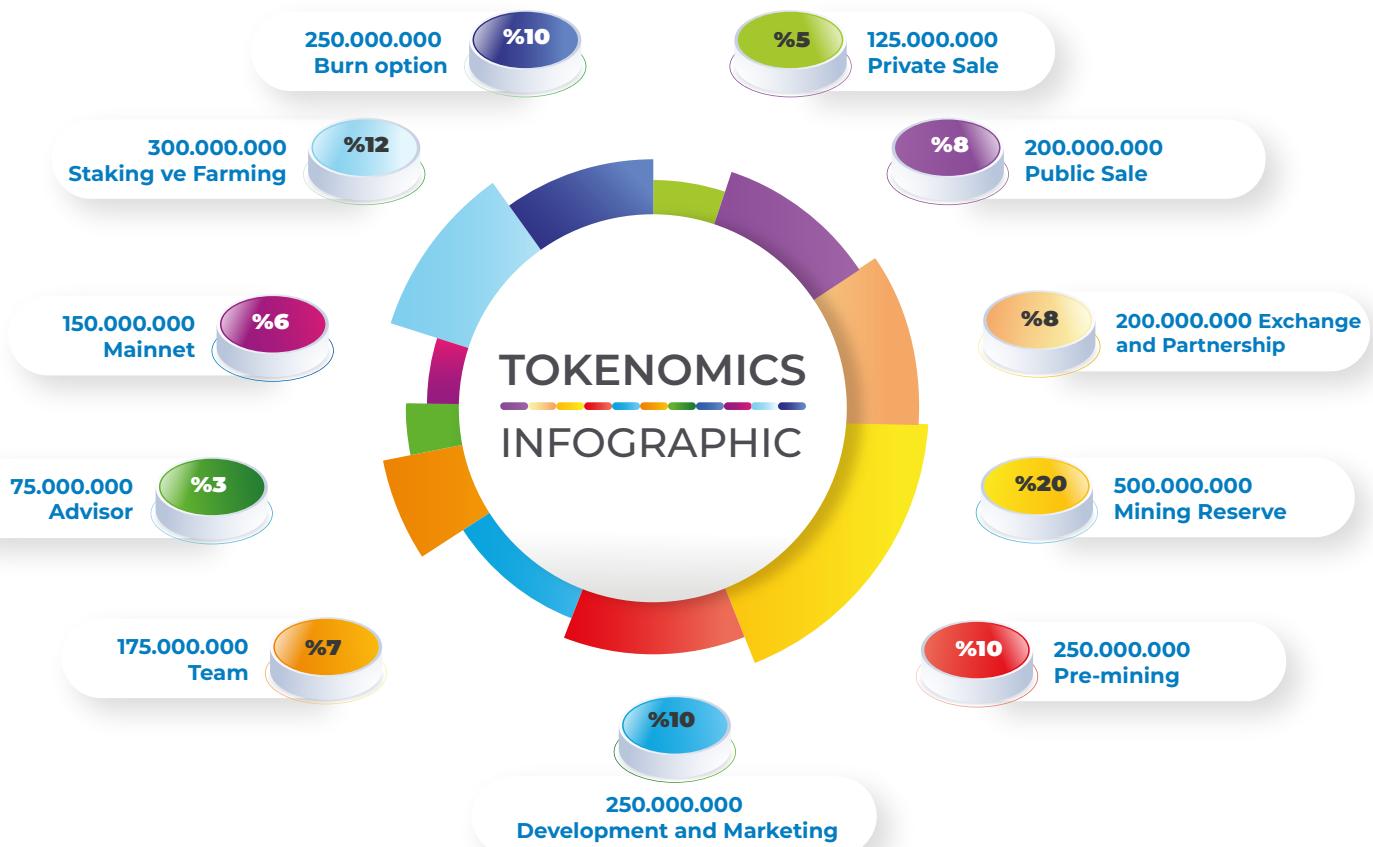
SolarMineX Mobile application is an application that teaches people to generate electricity with solar energy through gamification and aims to make people love it. Users who download this application will have a virtual area [meaning field, soil] and a virtual solar energy panel with a certain electricity generation power on this area and a virtual battery where it can store the electricity produced.

The application aims to teach people how the SolarMineX solar mining system will work, and to earn profits while learning it. In this way, when the SolarMineX solar mining system is available to SolarMineX miners, they will know how to use it.

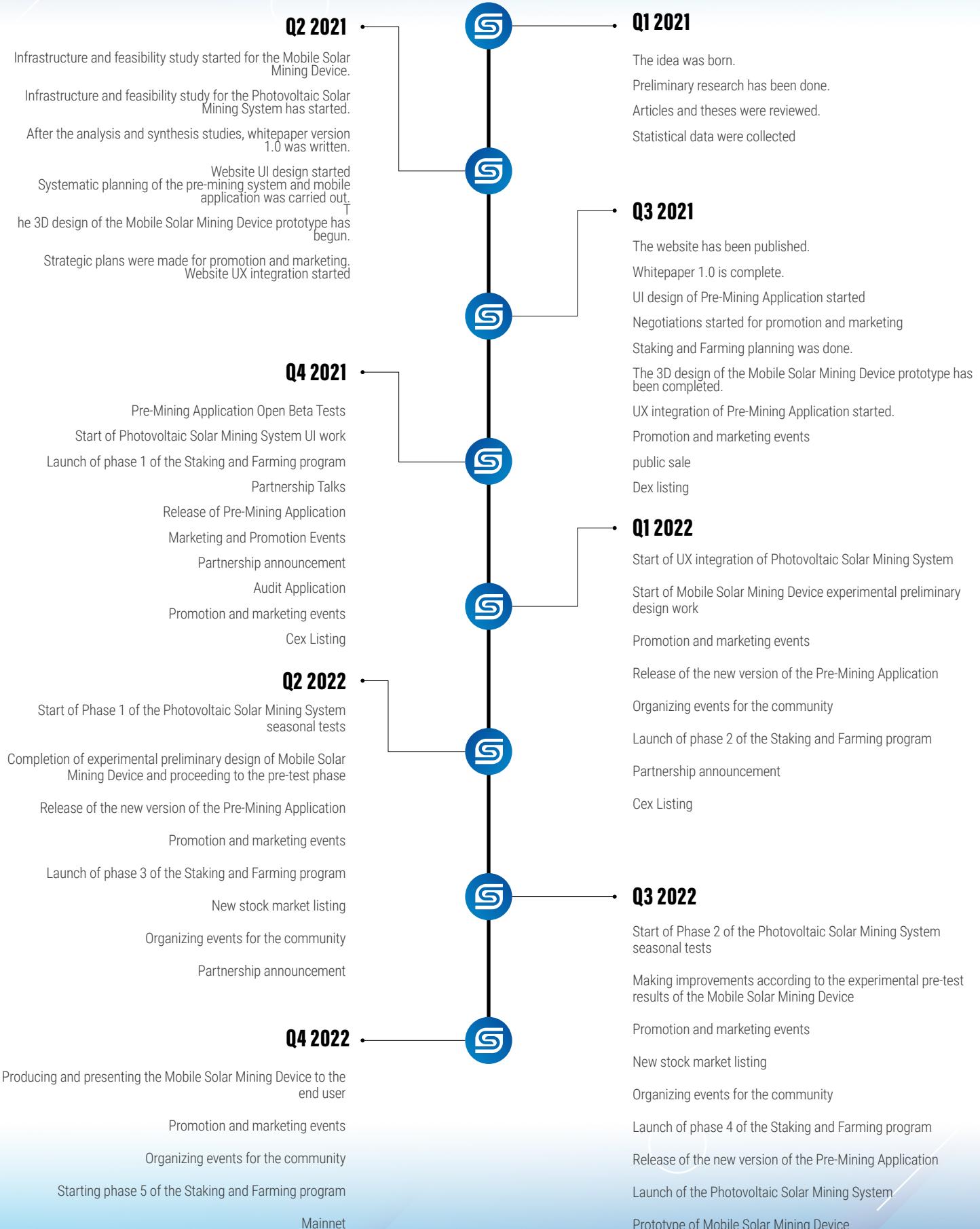
# TOKENOMICS

**TOTAL SUPPLY**

**2.500.000.000**



# ROADMAP



# SolarMineX Team



Aslı BIRTÜRK

Founder



Mustafa YALÇIN

CEO (Chief Executive Officer)



Av. Günnur OĞUZ

Legal Advisor



Sedat ALTINKAYA

CMO (Chief Marketing Officer)



Yasin ÖZEN

CFO (Chief Financial Officer)



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