

# SOLARBANKERS

THE BRIGHT SIDE OF LIGHT

## Initial Coin Offering

---

## Whitepaper

# Table of contents

|   |           |
|---|-----------|
| <b>Table of contents</b>                              | <b>1</b>  |
| <b>What is Solar Bankers?</b>                         | <b>2</b>  |
| A company defined by success                          | 2         |
| Our team is our greatest strength                     | 3         |
| <b>The Solar Bankers SunChain Ecosystem</b>           | <b>4</b>  |
| The world needs Solar Bankers                         | 4         |
| A global clean energy network                         | 4         |
| SunChain - How it works                               | 5         |
| Solar Bankers' solar energy generating hardware       | 6         |
| Holographic solar panel (Deflecting Photovoltaic DPV) | 6         |
| The Umbrella: Concentrator for existing solar modules | 7         |
| Self-cleaning & insulating film                       | 7         |
| Light recycling module                                | 9         |
| Solar technology in development                       | 10        |
| Smart Meters  | 10        |
| Easy to join  | 11        |
| Solar Bankers coin - the energy-generating token      | 12        |
| Skycoin   | 12        |
| Coin Allocation                                       | 13        |
| <b>Let's build the SunChain!</b>                      | <b>14</b> |

# What is Solar Bankers?

Solar Bankers is the first decentralised solar energy network based on the Skycoin blockchain and fully integrated with our highly innovative, proprietary solar energy generating hardware.

By incorporating five separate products into one integrated system, Solar Bankers will create an environment in which small-scale clean energy generation becomes economically viable. We do this by enabling individual energy producers to trade their excess power with neighbouring homes and businesses.

Solar Bankers' overall goals are to develop a global network of self-sufficient, decentralized renewable energy communities and, through digitization enabled by our Solar Bankers coin, to transform electricity into a globally exchangeable commodity.

## A company defined by success

Solar Bankers is a Singapore-based company with offices and installation partners throughout Asia, Europe and USA.

Since 2008, we have been pioneering the development of next generation energy efficiency solutions and are committed to improving the competitiveness and efficiency of the global energy industry.

Our success has been built on the development of game-changing products and the ownership of international patents that ensure we are rewarded for our achievements.

## Our team is our greatest strength

Solar Bankers has brought together some of the most talented people in their fields to create a management board that includes doctoral level engineers, blockchain pioneers, successful entrepreneurs and world-class cryptographers.

### **Alfred Jost, CEO & founder**

An international entrepreneur and expert in solar energy markets who began his career as an investment banker. Alfred has successfully established and managed more than ten companies and accumulated profits in excess of £100 million.

### **Dr Carlo Maragliano, CTO**

Dr Maragliano is an electrical engineer with a Ph.D. in Engineering from the Masdar Institute and over 10 years of experience in the fields of solar energy and energy efficiency. As an expert in optics and semiconducting materials, Carlo has a track record of successfully transferring different solar technologies from the lab to the marketplace.

### **Dana Duncan, COO**

An international manager with over 20 years experience in manufacturing and finance, Dana has pioneered solar energy projects in Germany, Mexico and the USA. His incredible range of expertise gives him the tools to tackle issues that arise in day-to-day business operations.

Dana holds a Masters degree in International Management (MIM) and an MBA from Thunderbird, the American Graduate School of International Management.

### **Frank Barthen, Marketing Director**

Mr. Barthen is a Marketing and Sales expert who develops innovative sales and marketing strategies for global companies. As well as international consultancy, Frank is Managing Director of Narciss and Taurus, a German marketing agency.

### **Yamila Omar, Chief Analyst**

Mrs. Omar is an engineer and expert in manufacturing and data science. Previously involved in the oil industry, Yamila is a Ph.D. candidate at the University of Luxembourg and holds a Masters degree in materials for renewable energy from the Masdar Institute.

### **Synth, Chief Cryptographer**

Synth is one of the world's top blockchain programmers and an early Bitcoin developer. Inventor of Skycoin Blockchain technology, Synth is an internationally recognized leader in the research and development of blockchain solutions for the energy and telecommunications industries.

### **Monark Agarwal, Head Developer**

Mr. Agarwal is a brilliant developer with over 3 years of experience in the field of blockchain and cryptocurrency. Monark holds a bachelor in computer science from GLA University, with a minor in sustainable technologies. Mr. Agarwal is responsible for php, net and node.js scripts development.

### **Suheidy Sepulveda, Product Designer and Developer**

Ms. Sepúlveda is a talented designer with a strong drive towards sustainable development. Suheidy holds a bachelor in architecture, with a minor in sustainable technologies, and a master in graphic design. Ms. Sepúlveda also coordinates Solar Bankers' partnerships in Puerto Rico.

# The Solar Bankers SunChain Ecosystem

## The world needs Solar Bankers

Solar Bankers' disruptive new business model has been made possible by blockchain technology and more specifically, Skycoin, the third generation blockchain platform. By using Skycoin as an energy-trading platform, we're able to create a new, exciting model for buying and selling electricity.

Currently, electricity is produced in a centralised fashion using massive power plants. Once generated, it is distributed over long distances to end-users. Whilst functional, this system is inefficient because:

- Centralisation reduces competition and tends towards monopolistic practices
- Distribution costs can add up to 30% to the price of energy
- Fossil-fuel fired energy plants emit large amounts of pollution, including greenhouse gases, and nuclear facilities incur high, long-term waste processing costs.

There is a need to replace the global, centralised model of energy production but until now, this hasn't been possible because of the high clean energy production costs and the inaccessibility of the energy markets.

## A global clean energy network

Solar Bankers' answer is to develop a global network of self-sufficient, decentralised, renewable energy communities.

These communities come together in SunChain, the Solar Bankers energy network where energy producers and consumers use Solar Bankers coin to buy and sell renewably generated electricity.

In Solar Bankers' distributed energy system, consumers generate electricity in their homes using Solar Bankers' photovoltaic products. They can then trade their energy with other members of their energy community through localized smart grids.

Members of the pool use Solar Bankers coin to either purchase Solar Bankers' energy-generating technology with the intent of generating their own energy, or they can use the coins to buy clean electricity.

In any given community, some members will choose to actively produce clean energy and sell any excess to the network, whilst others will choose to act solely as consumers buying clean, locally produced energy.

The beauty of the Solar Bankers system is that it produces significant efficiency gains that strongly incentivise growth in small-scale solar energy production. These efficiencies are generated by:

- using smart contract technology to execute energy trades and allocate supplies
- enabling clean energy producers to sell excess energy
- reducing energy transportation costs by developing local grid structures

Solar Bankers Decentralized Network is a discrete energy ecosystem which has the primary purpose of providing reliable and affordable energy.

The network is composed of nodes, which are simply electronic devices loaded with a Solar Bankers wallet. Nodes can be either active or passive.

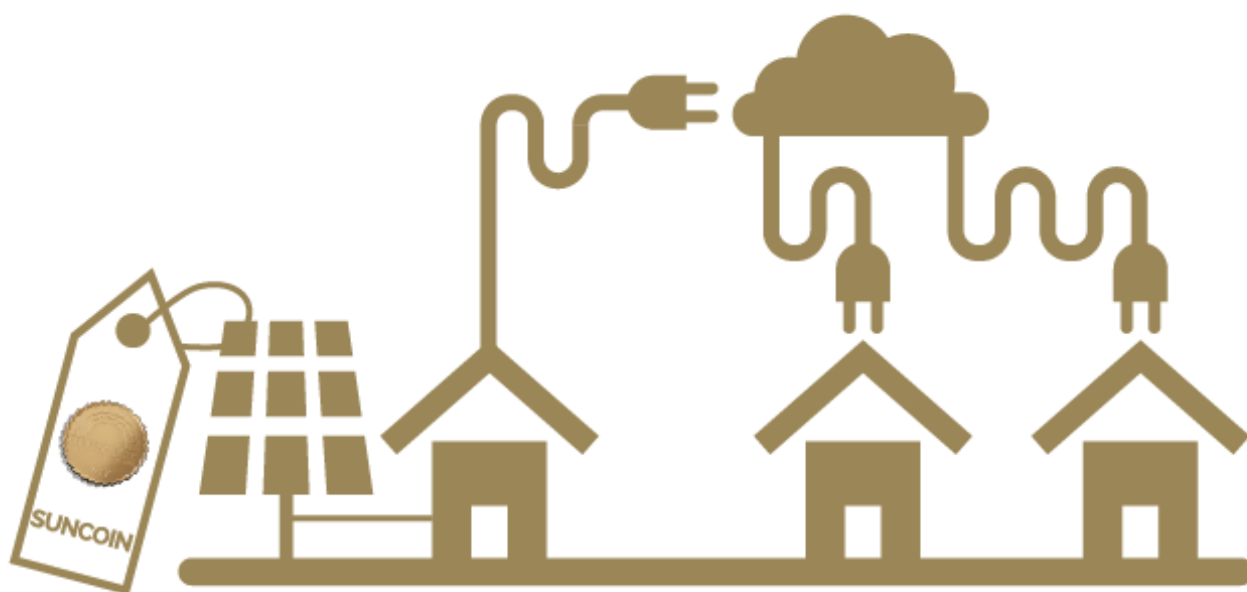
**Active nodes** generate electricity using Solar Bankers' photovoltaic devices and are rewarded with Solar Bankers coin when transferring the energy to other nodes. I

**Passive nodes** use Solar Bankers coin to pay for the electricity they receive from the network.

## SunChain - How it works

The SunChain network brings affordability to small-scale renewable energy generation by enabling clean energy producers to reduce the cost of, or even profit from their investment in clean energy generation.

Solar Bankers' SunChain achieves this by linking energy producers with energy buyers via community microgrids. These local energy networks may be powered by Solar Bankers' next generation photovoltaic technology. Incentives provided by the Solar Bankers coin, the SunChain currency, are designed to encourage the purchase of energy generating hardware and the global growth of SunChain energy producing networks.



## Solar Bankers' solar energy generating hardware

Solar Bankers' energy generating technology is an integral part of the SunChain ecosystem that enables small-scale producers to generate solar energy more efficiently than standard modules. Holders of Solar Bankers coin will be able to purchase Solar Bankers' technology at discounted prices.

### Holographic solar panel (Deflecting Photovoltaic DPV)

- Greater efficiency than standard modules
- Up to 30% more efficient at high temperatures
- 75% reduction in silicon use
- 50% cheaper than standard solar modules
- Certified durability greater than 25 years
- Self-cleaning hydrophobic surface
- 50% reduction of manufacturing greenhouse gas emissions



## The Umbrella: Concentrator for existing solar modules

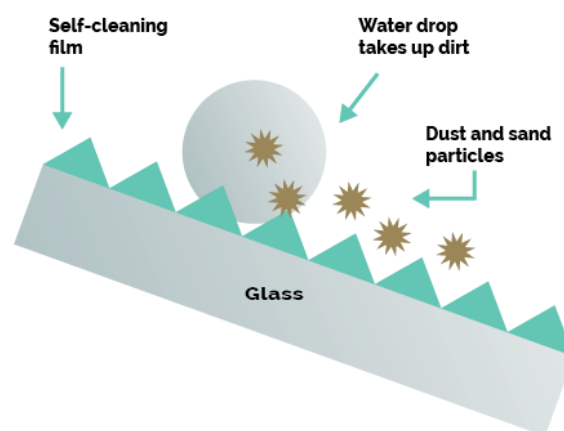
- Retro-fitted to increase output of existing solar modules
- Captures more light
- Up to 300% increase in power output
- Reduces temperature of existing panels to increase efficiency
- High durability
- Self-cleaning hydrophobic surface



## Self-cleaning & insulating film

- Nanostructured hydrophobic coating
- Heat reflecting to reduce panel temperature
- Energy savings up to 30%
- Maintenance cost savings up to 50%
- Durability greater than 20 years
- Scratch resistant
- Can be installed on windows

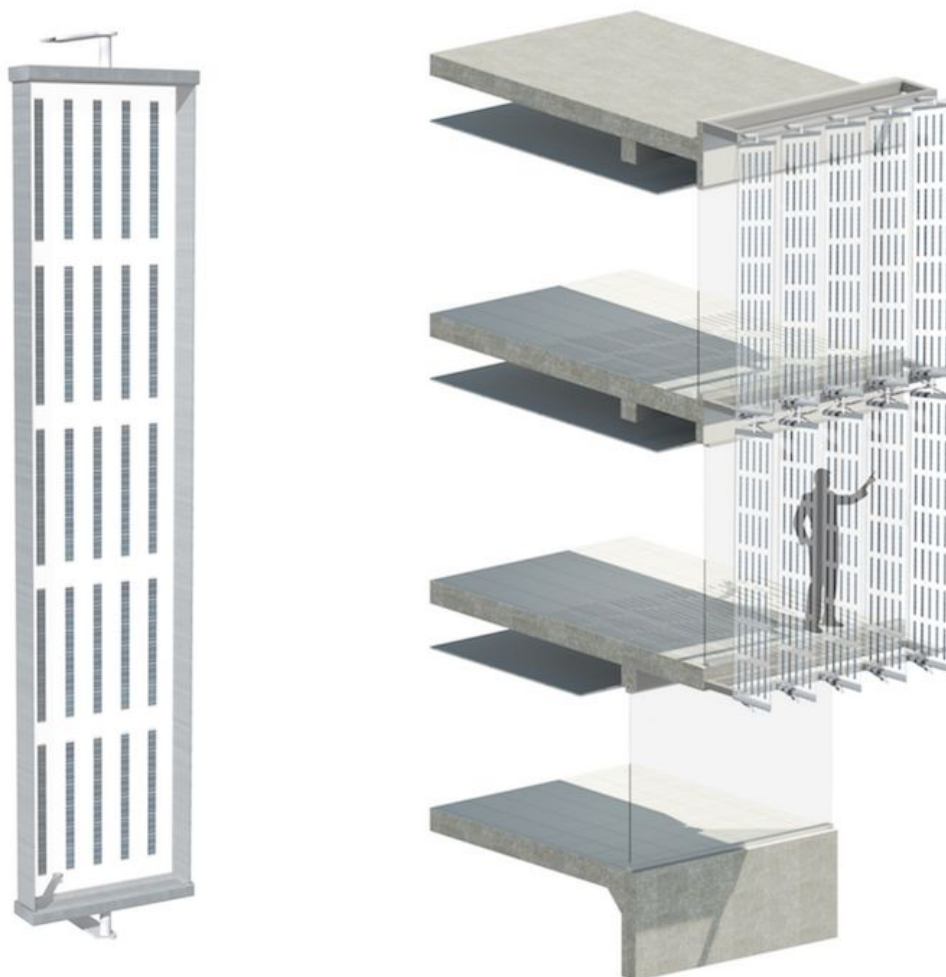
### Self-cleaning





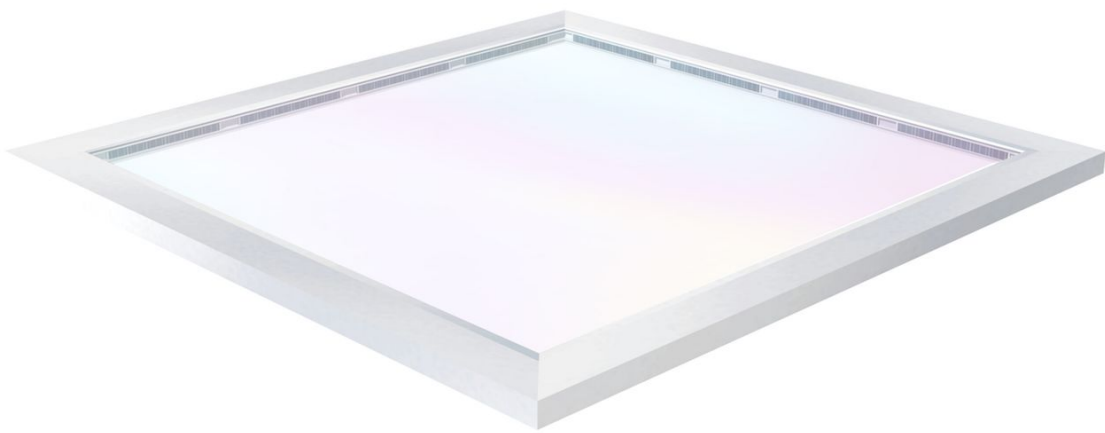
## Energy generating tile

- Energy generating building component
- Rotating action maximises solar exposure
- 30% more energy than fixed tiles
- Vertical & horizontal installation
- Limitless scale for all building sizes
- Less silicon means lower cost than standard solar tiles
- Durability greater than 20 years



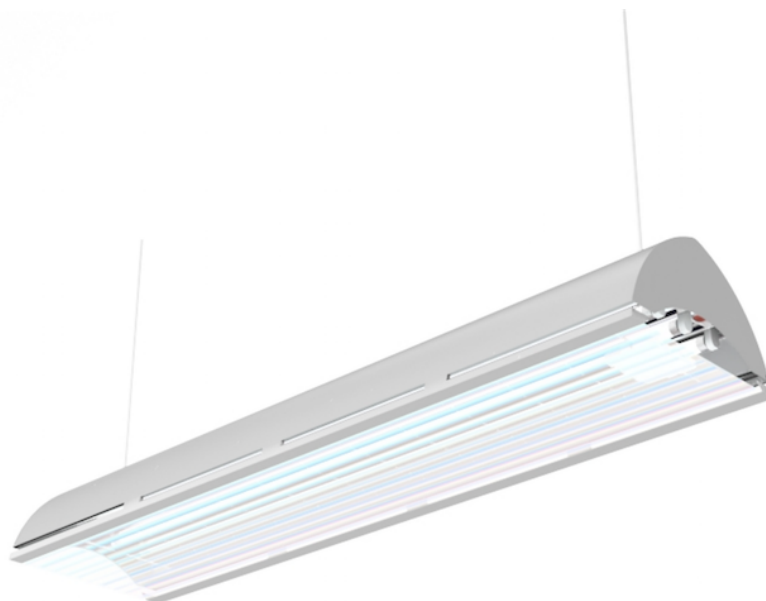
## Energy generating window

- Window that generates electricity from sunlight
- Up to 30% savings on electricity bills
- Elegant design
- Efficient energy generation
- Windows can be of any size
- Cost comparable to standard windows



## Light recycling module

- Recycles artificial light back into electricity
- Cuts electricity bills by up to 15%
- Can be adapted to any lamp
- Durability greater than 20 years



## Solar technology in development

At Solar Bankers, we believe that R & D represents the future of our business, so we never stop working on the development of more efficient and effective solar energy generating technologies. Here are two projects that we're currently working on:

### Multi-junction PV module

- Combines multiple conversion materials in one module
- Splits light for more effective energy conversion
- Achieves efficiency greater than 30% (theoretical limit of silicon modules)

### Hybrid PV-CSP module

- Combines PV and concentrating solar power (CSP) technologies
- Splits light: UV converts to electricity, IR is used to heat water
- More efficient use of sunlight
- Heated water can be used for electricity generation at night

## Smart Meters

The distribution of electricity is regulated by Solar Bankers' smart meters. These are devices that record the production and consumption of energy within a particular nucleus (house, building, solar park etc) and distribute the energy among the different nodes within the network. Ultimately, the Solar Bankers' smart meters run the Skyledger network.

Smart Meters also manage the exchange of electricity between nuclei, enabling bidirectional, inter-community energy trading.

## Easy to join

It's easy for people to become part of the Solar Bankers' Network, all they need to do is install the Solar Bankers coin wallet on their desktop before purchasing the Solar Bankers coin.

Users buy Solar Bankers coin using Bitcoin, Ether or Dash and can trade and exchange them for other tokens or fiat money.

After setting up their wallet and purchasing the Solar Bankers coin, users assume one of three roles:

### → **Consumer**

Users can simply use their Solar Bankers coins to purchase clean electricity from the network.

### → **Producer**

Producers can exchange their Solar Bankers coins for Solar Bankers' energy-generating technologies. These purchases are made at a fixed rate and enable people to produce their own clean and renewable energy. Producers receive Solar Bankers coins by selling electricity to their neighbors or other consumers, including owners of electric cars.

### → **Prosumer**

Users can both produce and consume energy from the network.

## Solar Bankers coin - the energy-generating token

**Solar Bankers coin** is the Solar Bankers' token built on Skycoin, a third generation blockchain platform. **Solar Bankers coin** is used to buy and sell electricity within the Solar Bankers network, it can also be used to purchase Solar Banker's clean energy generating technology and carbon-credits issued by clean energy producers.

## Skycoin

Skycoin was chosen as the basis for the Solar Bankers coin because it includes a number of characteristics that make it a more stable and more suitable platform.

Among these properties are a new cryptographic primitive known as a public broadcast channel and a new consensus algorithm implementation, called Obelisk, which mitigates the commitment problems arising from the Proof-of-Work and mining processes underlying Bitcoin, thus addressing a host of related security issues. Obelisk is not a single algorithm, but an implementation employing multiple techniques to deliver specific security guarantees. More info at [www.skycoin.net](http://www.skycoin.net).

## Solar Bankers Coin sets new standards in blockchain security

While it is obvious that no single system can eliminate all security threats, the Solar Bankers coin represents the next step in cryptocurrency technology because it takes a modular, layered approach to security and uses different systems to enforce particular guarantees.

Solar Bankers coin's security is focused on addressing the existential threats faced by Bitcoin and protecting users from day-to-day hazards, attempting to give the highest degree of protection against the classes of attacks that would inflict the greatest losses upon its users, stakeholders and institutions.

In cooperation with our partners, we have worked to address network level security issues and render the Solar Bankers coin blockchain more secure than previous networks. We have proven mathematically that our system achieves consensus, has the desired security properties and operates well under normal network conditions.

Solar Bankers coin implements some exciting new data-structures that have not previously been seen in any coin or piece of software. At the moment, we are prototyping the system for deployment and because the Solar Bankers coin development process is iterative, there will be changes, improvements and refinements as we work through the details, address known flaws, test the system and act on feedback.

## Coin Allocation<sup>1</sup>

| TOKEN ALLOCATION              |                         |                 |
|-------------------------------|-------------------------|-----------------|
| Distribution Category         | # of Solar Bankers coin | Allocation in % |
| Offered to the public         | 180,000,000             | 60%             |
| Partnerships & Collaborations | 50,000,000              | 17%             |
| Founders                      | 50,000,000              | 17%             |
| Bounty Program                | 15,000,000              | 5%              |
| Legal and Miscellaneous       | 5,000,000               | 2%              |
| Total                         | 300,000,000             | 100%            |

Coins offered to the public will be distributed over a period of minimum 10 years through OTC (over the counter) sales. The price at OTC will be slightly above the market price (5 to 10%). While with the team, undistributed coins will be frozen.

---

### <sup>1</sup> DISCLAIMER: SECURITY STATUS

(1) The Solar Bankers coin is not an investment-grade security of any kind. The Solar Bankers coin is a digital coin for participation in a global network of free energy production and exchange and does not confer ownership of a stake in the business, nor a right to receipt of dividends, interest, or any other type of regular payment. Solar Bankers does not guarantee profits or returns on funds given by buyers as part of the coin offering but offers instead a set of entrepreneurial opportunities for Solar Bankers coin holders to make use of independently.

# Let's build the SunChain!

**Sign up for Solar Bankers notifications today at  
solarbankers.com**

**Telegram:** <https://t.me/solarbankersICO>

**Discord:** <https://discord.gg/gNaUS2t>

**Facebook:** <https://www.facebook.com/solarbankerssingapore/>

**Twitter:** <https://twitter.com/SolarBankers>