Carbon Footprint Report

2021

Contents

Introduction

- A horizontally integrated clean energy technology company
- The vice chairman unit of the Clean Heating Industry Committee (CHIC)
- The first company in supercomputing and crypto industry who addressed it carbon footprint and actively involved in the activities heading to carbon neutrality
- Founded in 2019
- Core technology sectors

  SAIHEAT (chip waste heat utilization)
  SAIWATT (clean power consumption)
  SAIBYTE (computing cloud network system)
  SAICHIP (new computing chip)

About the report

Purpose

SAI is pleased to present to you our carbon footprint methodology report and the results of our first national wide data collection exercise.

Support

This document was made possible thanks to the support of Sustainability Accounting Standards Board (SASB), UNFCCC officers and other professionals who advised us with their expertise in carbon footprint calculation, report standards.

Main contents

The report presents the carbon footprint of SAI in year 2020. The majority carbon emissions are from the electricity consumptions for running the data centers and bitcoin mining. However, SAI has explored different ways to recover and reuse waste heat in order to create additional sources of income and offset electricity costs.

Within the development of technologies

Currently	2023
90%+	96%
of the heat generated by chips can be recollected and used for heating	the heat recollection rate

Our Vision

Driving our peers to transform together

Promote society to achieve carbon neutrality

Solve the climate crisis

Regarding

We trust you will find this document useful, and SAI remains at your disposal to answer any comments or question you may have regarding the SAI carbon footprint.

Background about SAI and the Supercomputing Industry

SAI

SAI was established in 2019 and has been committed to solving the problem of energy costs of computing. Bearing the mission of becoming the world's first horizontally integrated clean energy technology company, SAI serves its customers around the world with business solutions from computing to electricity to heating.

Main Technology Segments

From the perspective of clean energy business, SAI has four main business segments:

SAIHEAT (Chip waste heat utilization)

SAIHEAT, by providing integrated solution of "liquid cooling + waste heat utilization", collects the wasted heat generated in computing process and reuses it, helping reducing the electricity cost dramatically while replacing the traditional heat source with clean energy.

SAIWATT (Clean power consumption)

SAIWATT (clean power consumption) uses idle energy such as hydropower, wind power, and associated gas power to generate electricity for computing, and realizes idle energy consumption and peak shaving, as well as costs reduction for both energy owners and SAI as the operator.

SAIBYTE (Computing cloud network system) and SAICHIP (New computing chip).

SAI also offers computing power cloud services and new chip materials to jointly reduce the cost of the computing industry.

Technological Superiority

With cutting-edge clean energy-based computing and energy center, as well as waste heat utilization technology and power consumption technology, SAI can reduce up to 30% of energy consumption cost in the computing process, while cutting down infrastructure investment, thus leads to a high profit margin for the company and its partners. In the future, SAI will establish computing and energy centers around the world to provide clean computing power.

SAI's Value Proposition

Being the world's first digital asset company to sign UN Climate Neutral Now Initiative, SAI's value proposition is simple: to provide its customers with lower cost access to clean computing power and help them realize improved ROI on BTC investments.

Background about SAI and the Supercomputing Industry

Supercomputing industry

Supercomputing

Supercomputing, also known as high performance computing (HPC), refers to computing systems with extremely high computational power that are able to solve hugely complex and demanding problems. Nowadays, with larger amounts of data constantly being generated, from 33 zettabytes globally in 2018 to an expected 175 zettabytes in 2025 (1 zettabyte is equal to 1 trillion gigabytes), supercomputing provides better solutions in many fields that people or traditional computers cannot do. It is not only an important symbol of a country's comprehensive scientific research level, but also an irreplaceable information technology measure to support national security, economic and social development.

33 Zettabytes → **175** Zettabytes

Global supercomputing market

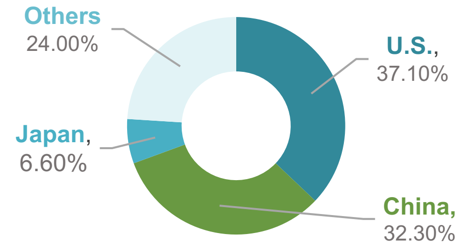
The rapid development of some new industries, such as cloud computing, big data, edge computing, artificial intelligence, etc., accelerated the evolution of super-computing.

As for the global supercomputing market, according to Reports and Data, it is forecasted to grow at a CAGR of 9.5% during 2020 to 2026, reaching USD 13.06 Billion by 2027. The increase in demand for higher processing power and broad adoption of supercomputing systems in commercial sectors are the two major factors driving the growth of this market. Applications of supercomputers can be found in engineering, product design, complex supply chain optimization, and Bitcoin mining.

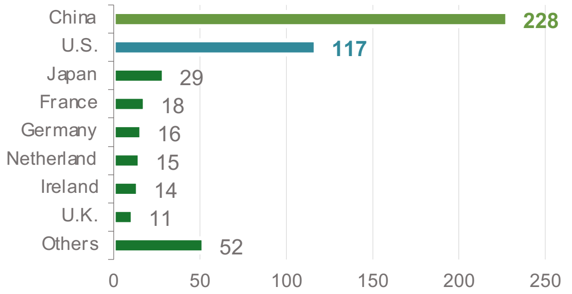
The supercomputer market is concentrated. On November 18th, 2019, TOP500 announced the list of global top 500 supercomputers. From the perspective of entry numbers, China has further strengthened its leading position over the United States. Of the top 500, China accounts for 228, while the United States accounts for 117, presenting an absolute leading advantage over the United States.

From the perspective of computing power, the United States is still at the top of the list. Among the top 500, the United States accounts for 37.1% of the total computing performance, while China accounts for 32.3%. However, the gap between these two countries is shrinking.

2019 Global top 500 supercomputers, in terms of computing power



2019 Global top 500 supercomputers, in terms of numbers



The biggest challenges faced by supercomputing

Nowadays, one of the biggest challenges faced by supercomputing is power consumption. The world's fastest petascale computer requires 28.3 megawatts to run. As for an exascale computer, it might require 30 to 50 megawatts of power to operate, which equals to the power consumed by the sum of residential buildings of a town of 50,000 to 70,000 people. The cost of electricity is high as well. Ten megawatt of electricity costs USD 4 million each year. Thus, increasing energy efficiency while reducing carbon emission are becoming the major concerns of this industry.

In the future, with more advanced chips like GPUs, FPGAs being broadly adopted by supercomputers, faster and higher performance with greater energy efficiency is expected to be seen in supercomputing industry.

Source: TOP500 Project, Green500 List.

Report Objective and Scope

Objective

Environmental reporting, and more specifically carbon footprint, has gained widespread importance over the past years worldwide. This inspired SAI to develop a carbon footprint report for its GHG emissions and also set itself as an example for its peers in the supercomputing and crypto industries.

In 2020, SAI collected data from every aspect of its businesses. This report presents the context, methodology, and results of the first edition of SAI' s carbon footprint exercise.

The outcome of this exercise provides for the first time a carbon footprint calculation for the bitcoin mining and supercomputing industry. It will increase the general knowledge of the crypto mining industry.

Scope

1 Geographical scope

In 2020, due to the global pandemic, SAI' s business mainly operated in Mainland China.

In 2021, SAI will expand its market coverage and operate its business in Central Asia, Middle East, Europe and North America.

2 Product and services scope

The core product that SAI self-designed, developed is called SAICAB.

SAI offers hosting services to clients who want to mine the cryptocurrencies by their own. SAI also owns a certain amount of the SAICABs.

3 CO2 equivalent

The GHG Protocol Product Standard covers six different greenhouse gasses. In addition to CO_2, it also takes into account CH_4, N_2O, SF_6, HFCs and PFCs. The product carbon footprint calculated by SAI and presented in this report will therefore be presented as tonne of CO_2 equivalent per tonne.

These process emissions are calculated based on the stoichiometric calculations on the input material.

With regard to the fuel emissions, fuel conversion factors were used which taken into account the typical emissions from all six greenhouse gases emitted during combustion of the different fuels as well as the upstream emissions related to these fuels.

Methodology

Process

SAI developed a detailed product carbon footprint methodology in line with the official Greenhouse Gas Protocol Product Standard.
An essential part of the methodology was to set up an extensive data collection exercise amongst SAI all operating sites. For this purpose, a detailed sector guide and questionnaire (in excel) were developed. Site managers had dedicated collected all essential data to report. Data was collected on the Energy Intensity (MWh/tonne). This allowed SAI to calculate the energy intensity and CO_2 equivalent carbon footprint.
SAI also send internal experts to all the sites to check the real operation environment and data collection process. We ensure all the data are reliable and correct.

Specifications

In addition to the system boundaries and process steps detailed above, the following specifications were given.

1. Data sources:

In accordance with the GHG Product Standard, the carbon impact must be calculated based on primary data. The data requested from SAI sites covered energy consumption for each process step. Reporting was carried out at plant level in order to maximize the number of data points to assess the variability of the results.

2. Reporting period:

Data has been reported for a rolling (continuous) 12 month period between March 2020 and March 2021.

3. Reporting value:

The values of energy consumption for the different energy carriers and process steps have been reported in MWh for the total reference flow.
The CO_2 process emissions have been reported in tonnes of process CO_2 emitted for the total reference flow.

4. Energy conversion factors:

For the conversion of fuel sources (expressed e.g. in kg/tonne or Nm^3/tonne) to kWh/tonne of fuel, site specific energy conversion factors have been used based on the lower calorific value (i.e. useful heat) provided by the supplier of the energy source.

5. Energy carrier:

SAI has calculated the CO_2 footprint from the reported MWh and tonnage based on the specific energy carrier for each of the reported values. For this purpose, energy consumption data has been collected separately for each energy carrier (natural gas, electricity, and so on).

Confidentiality

All data has been collected by SAI and kept confidential.

Results and Analysis

Key facts

Carbon Footprint	2021 Emissions (tCO_2e)
Scope 1	
Petrol use	7.58
Scope 2	
Facilities energy use	103,081.51
Heat recovery emissions saved	10,351.25
Net facilities emissions	92,730.26
Scope 3	
Flight emissions	23.35
Train emissions	1.30
Taxi emissions	1.66
Trucks (for chip relocation)	247.28

90%+

SAICAB can collect over 90% of the heat generated by chips and reuse it for central heating.

100%

In summer, 100% of the electricity consumed by SAI is powered by renewable energy.

100%

In winter, 100% of the residents' houses and farms which are offered central heating by SAICAB have a stable indoor temperature at 28-30 Celsius degrees.

35%

Costs on computing power and heating power are reduced about 35%.

2050

SAI is able to achieve carbon neutrality before 2050.

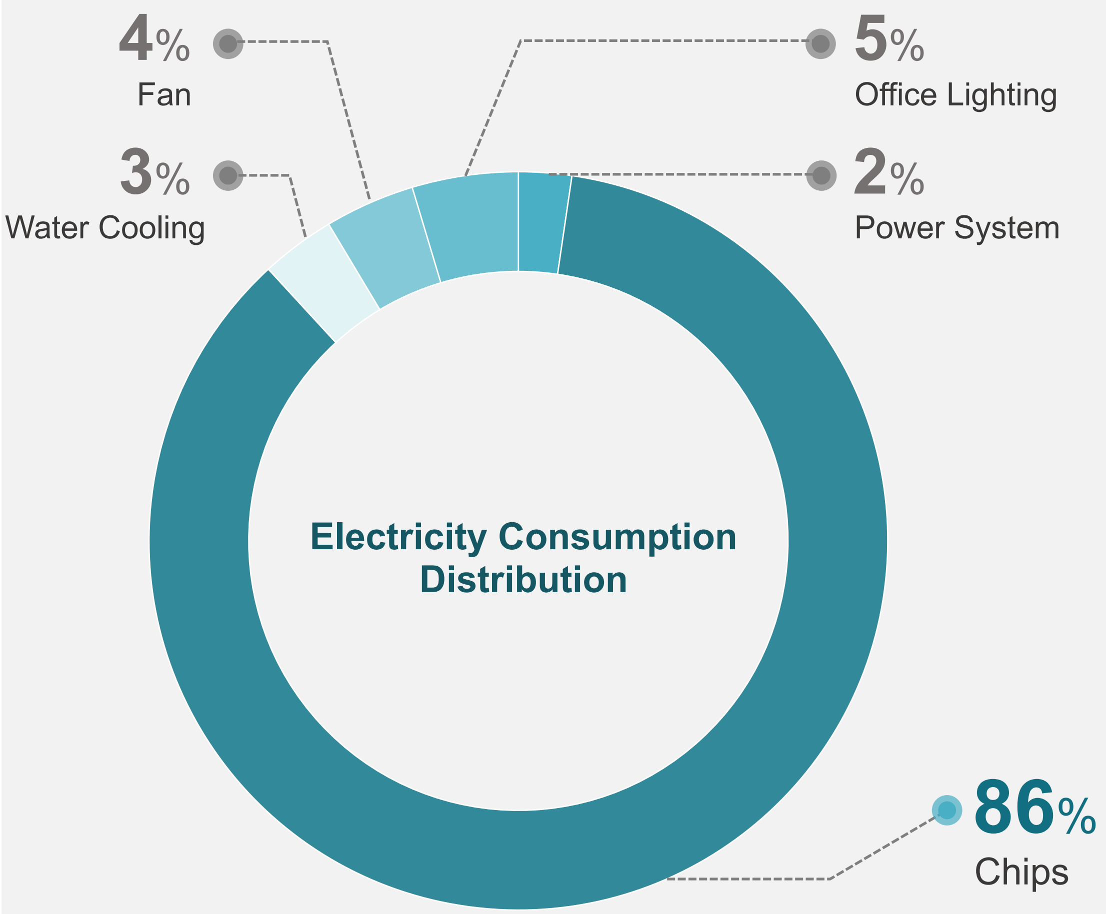
99%+

The main carbon emissions of SAI came from scope 2. Over 99% of the carbon emissions are from the electricity used for powering the chips.

Results and Analysis

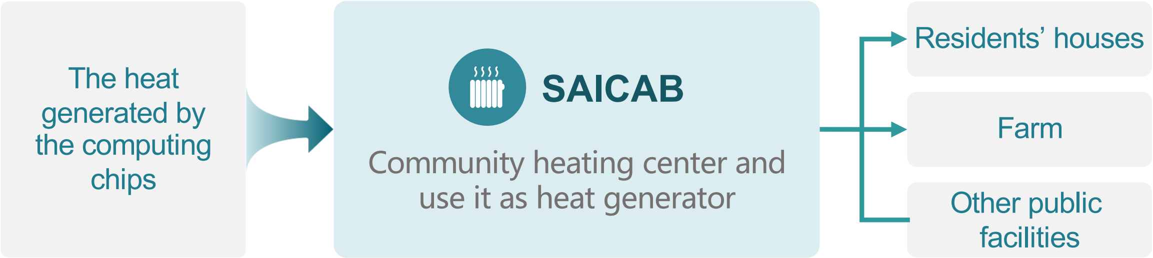
Seasonal Effect

SAI's carbon emissions varies in different seasons. SAI also developed its own solutions to achieve decarbonization.



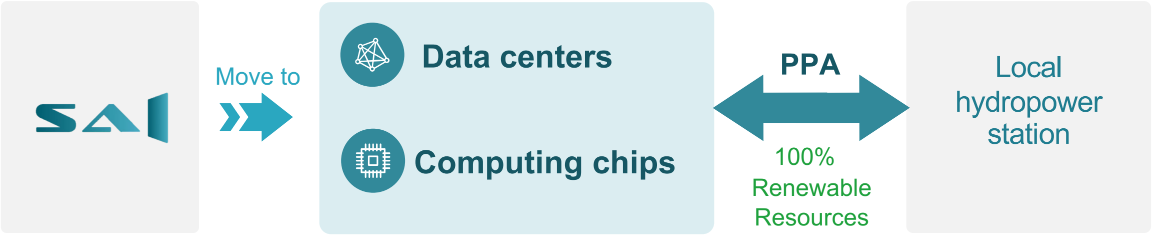
Over 90% of the heat generated by chips are collected for heating

Winter



In winter, SAI sets its SAICAB into community heating center and use it as heat generator. SAICAB will recollect the heat generated by the computing chips and power the heat into the residents' houses, farm, and other public facilities.

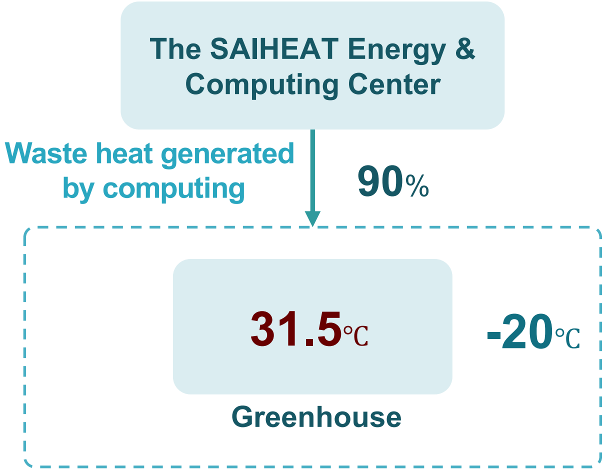
Summer



In summer, SAI moves all its data centers and computing chips into water-rich areas, where SAI signed an PPA with local hydropower station. It ensures that 100% electricity SAI consumes will be generated from renewable resources.

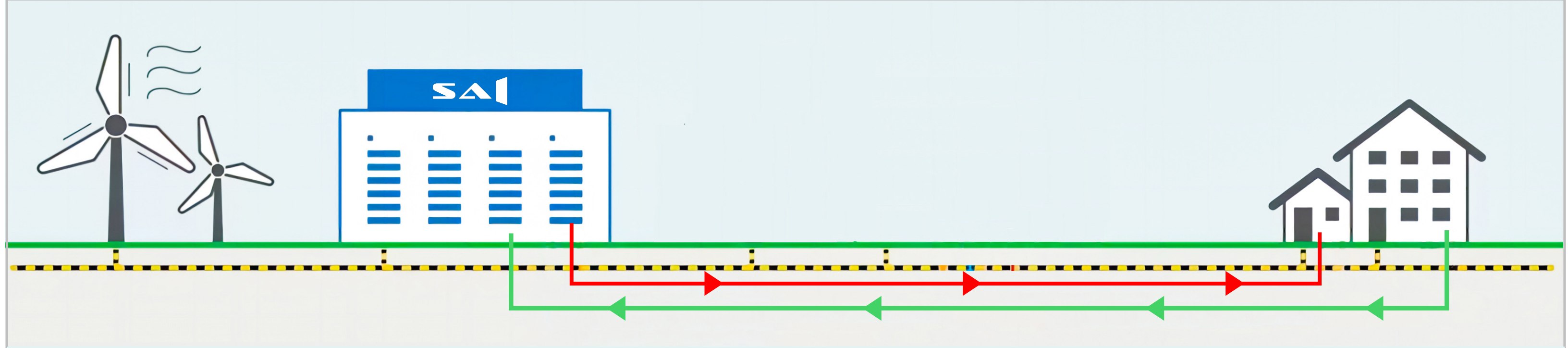
Central Asia Project: an Example of Heat Recovery

Pilot operating center in Central Asia



SAI has successfully deployed a pilot operating center in Central Asia. The SAIHEAT Energy & Computing Center can use technical means to recover the waste heat generated by computing, and then use the heat for green-house heating.

The greenhouse can be maintained at 31.5 degrees (the outdoor environment is minus 20 degrees). The average heat recovery rate of the whole process exceeds 90%.



1. Wind turbines and hydropower add renewable energy to the electric grid that supplies our data center and crypto mining centers.
2. Heat from the servers& chips is directed over water coils to heat water.
3. The hot water delivers the heat to the community via the district heating network.

90% Consumed in our crypto mining and supercomputing centers

90% Collected and reuse

The electricity used by the chips count for 90% of total electricity consumed in our crypto mining and supercomputing centers. 90% of the heat generated by the chips were collected and reuse for central heating of residential houses, farms, public facilities.

35% Reduce the cost of computing power and heating power

This allows customers to reduce the cost of computing power and heating power by about 35% while effectively reducing the power supporting investment, realizing a clean computing solution.

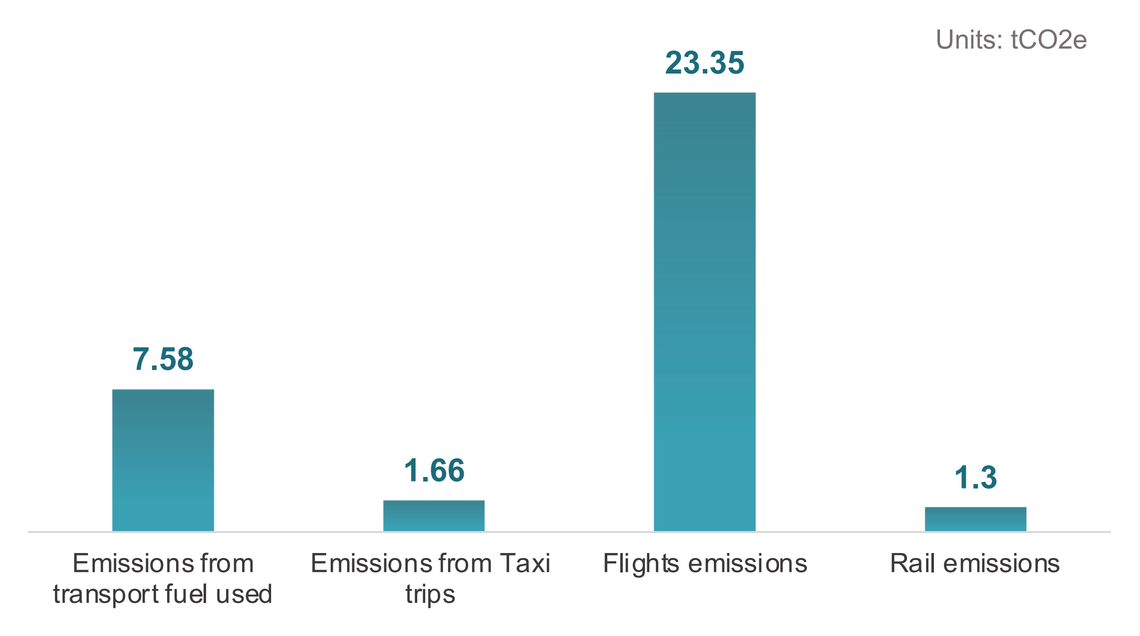
Renewable energies to power the mining chips

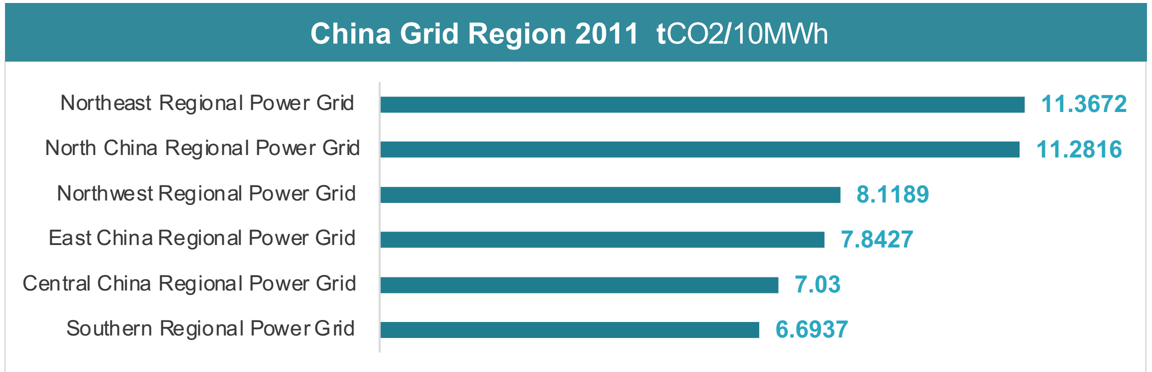
Use the renewable energies to power the mining chips, reuse the heat the chips self-produced.

Results and Analysis

Carbon Footprint Calculation

Travel		
Emissions from Transport Fuel Used		
Total fuel cost	23,552.00	CNY
Fuel unit cost	7.19	CNY/litre
Fuel use	3,276.12	litres
Carbon factor	2.31	kgCO2e/litre
Total carbon emissions	**7,583.13**	**kgCO2e**
Emissions from Taxi Trips		
Total trip cost	15,801.00	CNY
Trip unit cost	1.60	CNY/km
Total distance	9,875.63	km
Carbon factor	0.16844	kgCO2e/km
Total carbon emissions	**1,663.45**	**kgCO2e**
Flights Emissions		
Carbon factor	Short haul	0.1555
	Long haul	0.1909
	Average	0.1732
Total emissions	**23.35**	
Rail Emissions		
Carbon factor	0.03694	kgCO2/pax km
Total emissions	**1.3004616**	**tCO2e**



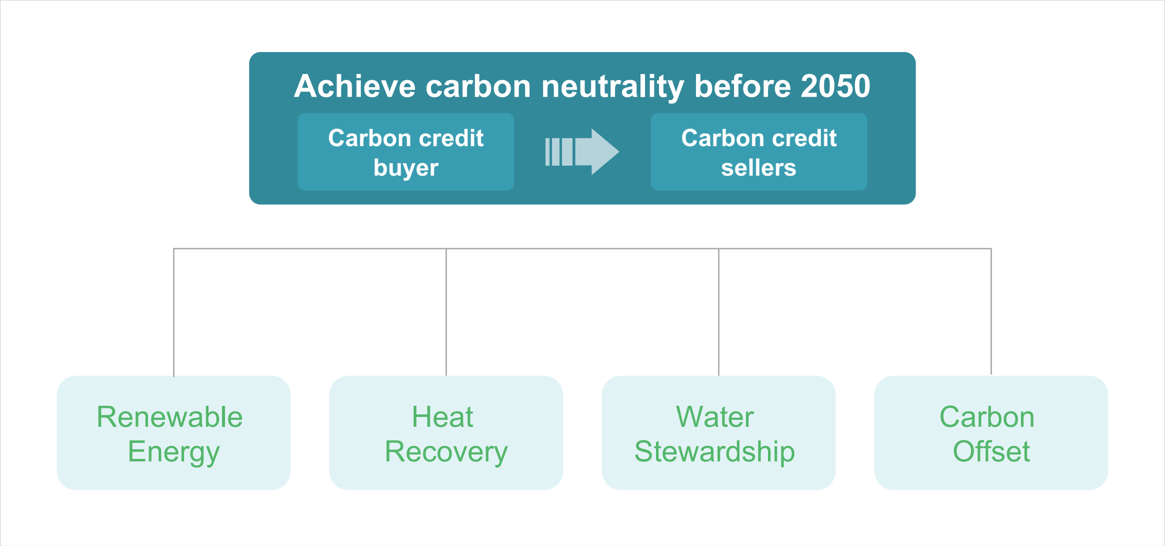


Results and Analysis

Main Statistics

	2020										2021		
	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
Electricity Usage (kWh)													
Total		-	-	-	-	207,138.0	111,414.0	235,623.0	332,106.0	2,095,006.2	3,740,828.4	4,839,695.1	4,709,900.4
Heat Recovery (GJ)													
Total		-	-	-	-	-	-	243.60	1,223.56	5,486.56	5,727.12	5,249.58	6,364.13
Heat Recovery (MWh)													
Total						-	-	67.67	339.88	1,524.06	1,590.88	1,458.23	1,767.83

Pathway to Eliminate Carbon Emissions



Renewable Energy

SAI entered into a long-term renewable energy supply agreement with regional renewable energy power stations. Those power stations agreed to supply SAI' s Data center and crypto mining center with a 100% renewable energy supply.

Heat Recovery

In addition to its renewable power purchases, SAI is collaborating with the district heating company to develop heat recovery infrastructure. The goal of the heat recovery infrastructure is to recover excess heat from SAI' s data center and crypto mining centers and send the recycled heat back to the community. Energy will be recovered from SAI' s computing chips and upgraded by a newly constructed heat pump facility.

Water Stewardship

SAI prioritizes water stewardship across its operations and the many communities it serves. Its data centers are among the most water-efficient in the world. SAI invests in circular systems that reuse water as many times as possible before discharging it to wastewater treatment plants.

Carbon Offset

Carbon neutrality is achieved when emissions from a product, activity or a whole organization are netted off, either through the purchase of an equivalent number of offsets or through a combination of emissions reduction and offsetting. There are some carbon emissions that cannot be eliminated by using renewable energy only. Based on the Carbon Offset strategies proposed by CarbonTrust, we will take the following steps to buy needed carbon credits to indirectly offset the carbon emissions of SAI.

Stage1 Direct emissions reduction

- Calculate emissions
- Look for internal abatement opportunities
- Develop an emissions reduction/ carbon management plan

Stage2 Indirect emissions reduction

- Map supply chain process and establish carbon footprint
- Identify opportunities for emissions reduction
- Develop an implementation plan across the supply chain
- Bring new low-carbon products to market

Stage3 Offsetting (optional)

- Establish reasons for buying offsets
- Define type of offsets to be bought
- Carry out due diligence on robustness of offsets

Pathway to Eliminate Carbon Emissions

Pathway to Eliminate Carbon Emissions

Scope1 ››› Scope2 ››› Scope3 ››› Strategy

- Develop Dccarbonization Strategy
- Decarbonize Scope1 Goods Transportation
- Decarbonize Scope3 Staff Business Trip
- Decarbonize Scope1 Staff Business Trip
- Carbon Offset Strategy
- Energy Efficiency
- Renewable Energy
- Staff Training
- Products Innovation

Time

1

Grid electricity decarbonization over time from national policies of increasing renewables

4

On site renewable energy

Replaces carbon intensive grid electricity

2

Heat recovery (used for district heating)

Saves carbon from natural gas or coal displacement

3

Energy efficiency measures (e.g. more efficient processors)
Saves total energy demand

5

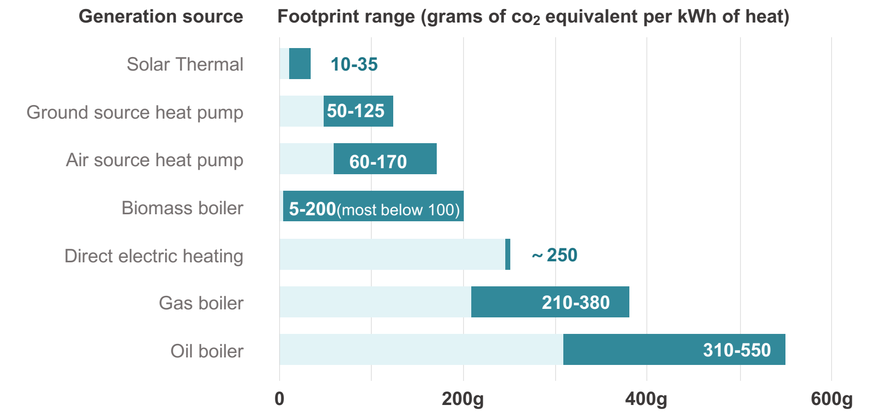
Purchase carbon offsets

Compensate for carbon emitted (e.g. from forestry)

CARBON NEUTRAL
ZERO EMISSION
CARBON NEUTRAL

Industry Solutions

Heating Industry



Source: The Parliamentary Office of Science and Technology

The Energy Structure

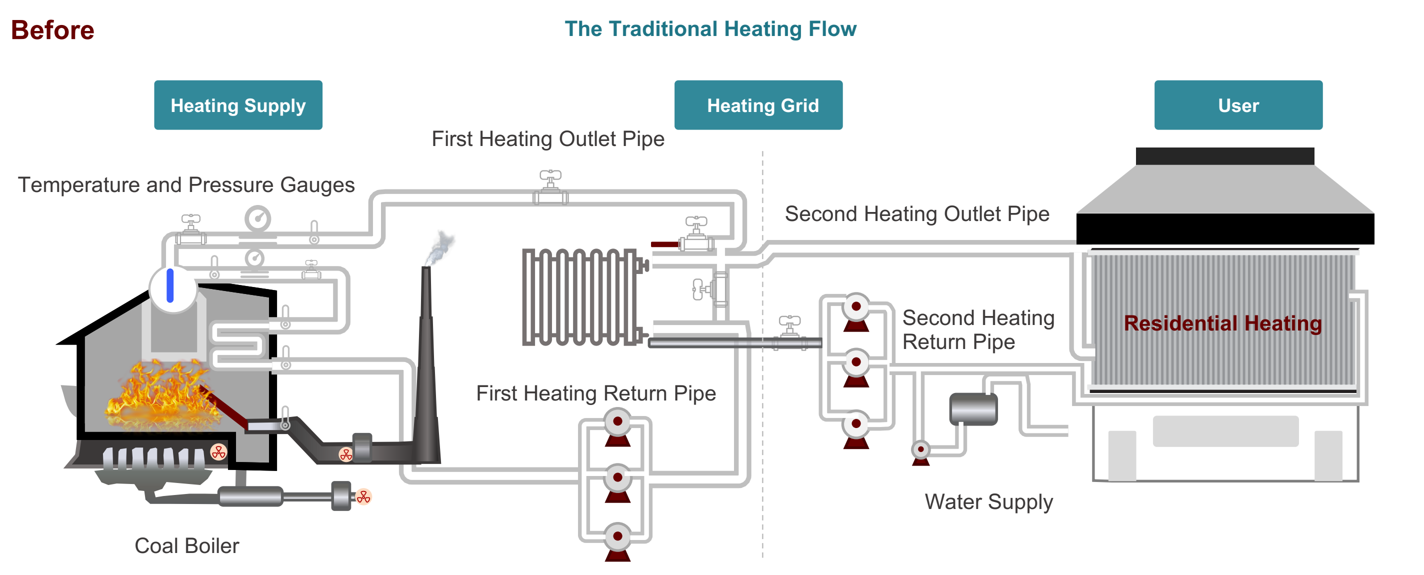
Buildings use more than one-third of the world' s energy, most energy is used for heating spaces and water. Most of this heat is generated by burning coal, natural gas, oil. And where these fossil fuels are consumed, greenhouse gas emissions are a given.

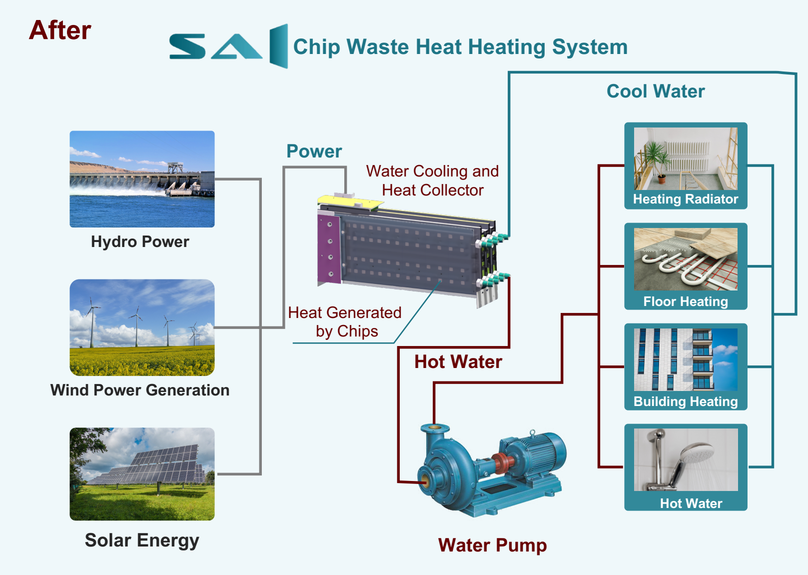
Electric Heat Pumps

Electric heat pumps, first widely used in the 1970s in Europe, could be the best solution to cut that fossil fuel use. They could slash the carbon emissions of buildings by half. A heat pump uses a compressor and refrigerant to move heat from one place to another. It can extract heat from outside air, even in the winter, and release it inside a house, basically like an air-conditioner running in reverse. But the pump is only suitable for the areas where are not very cold, and the cost of device is more expensive.

The Traditional Heating Flow

The traditional heating flow is shown as below. It involves many components in order to build up the whole system. It will generate massive carbon emissions during the production of those machines, pipes, etc. Also, considering about the transportation, maintenances charges, the traditional heating industry needs a brand-new revolution which can reduce the carbon emissions of the whole system and enable the whole society to reach to carbon neutrality in near future.





Industry Solutions

Heating Industry

Estimation model

In the global latitude area of 40-45 degree, a 10,000KW heating boiling center can supply 200,000 square meters of heating required throughout the year. A 10,000KW crypto mining center also need massive energy inputs.

A Build a heating boiling center and a crypto mining center.

B Use SAICAB to build the crypto mining center and also collect the heat from the chips, power the heat to residents' house, public facilities etc.

	Unit	Crypto Mining Center	Heating Boiling Center	Total
Construction Costs	RMB	6,500,000	8,250,000	14,750,000
Power Consumption	Kwh	44,400,000	26,640,000	71,040,000
Operation Costs	RMB	14,208,000	5,328,000	19,536,000
Payback Period	Year	2.93	13.75	-
Converted to Coal	Tonne	13,321	7,993	21,314
Converted to Carbon Emissions	Tonne	39,964	23,978	63,762

	SAICAB
Construction Costs	5,950,000
Power Consumption	44,400,000
Operation Costs	8,880,000
Payback Period	2.11
Converted to Coal	13,321
Converted to Carbon Emissions	39,964

SAICAB can greatly save the carbon emissions

59.7%

SAICAB can save up to 59.7% construction costs.

37.5%

SAICAB can save 37.5% of power consumption.

54.5%

Over 54.5% operation costs can be saved by SAICAB.

37.5%

SAICAB can save over 7,993 tonnes of coals.

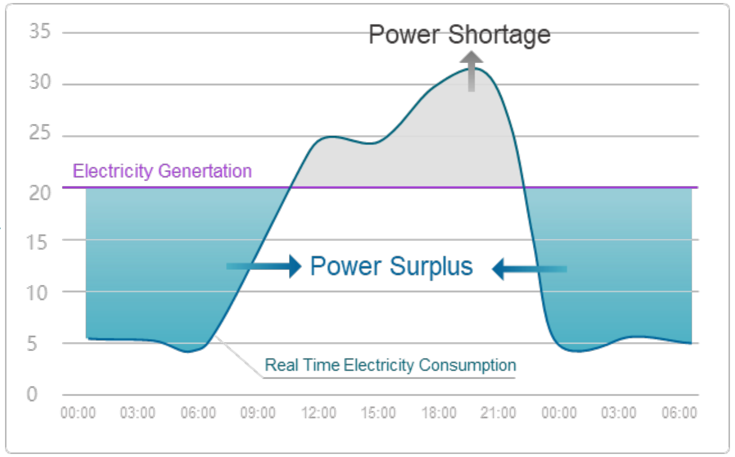
37.3%

SAICAB can save over 23,798 tonnes of carbon emissions.

Hydro Power Peak Cut

A Complex Challenge of Renewable Energy

As more renewables come online, they create a tricky problem for grid operators. Since people cannot control how much sun shines or how much wind blows, there' s a constant risk of either too much or too little energy flow. When there' s too little, operators can compensate by firing up hydro or fossil fuel generators where are more reliable. But dealing with too much energy presents a complex challenge.



Bitcoin——a Better Overall Value Proposition

Bitcoin can be mined anywhere. Almost all energy used in the world must be relatively close to its end-user production, but Bitcoin does not have this restriction, which allows miners to utilize power that is not available to most other applications.

Miners could use bitcoin mining as a "profitable battery" to consume the idle electricity. bitcoin miners, on the other hand, are an ideal complementary technology for renewables and storage. Combining generation with both storage and miners presents a better overall value proposition than building generation and storage alone.

The plan, in other words, is to situate Bitcoin mining centers in places where renewable energy farms overproduce electricity during times of low demand and soak up that excess power for mining. The mine gets low-cost, zero-carbon power; the wind or solar farm gets a reliable big customer.

Industry Solutions

Hydro Power Peak Cut

Waste Estimation

During water season, taking the hydropower plant as an example, 37.5% of the generated electricity will be wasted because it is over the capacity that required by the consumers. We built up a few assumptions to test how much carbon emissions can we reduce.

Hydropower abandonment + coal powered computing: The excess electricity that hydropower produced will be abandoned and the computing center will be powered by electricity generated by coal.

Hydropower storage + coal powered computing: The excess electricity that hydropower produced will be stored and the computing center will be powered by electricity generated by coal.

Hydropower powered computing: The excess electricity that hydropower produced will be used to power the computing center.

	Unit	Hydropower abandonment + coal powered computing	Hydropower storage + coal powered computing	Hydropower powered computing
Payback period for investing hydropower peak shaving	Year	-	9 —10	1.8
Payback period for investing in computing hosting	Year	2	2	1
Calculated carbon emissions		39,964	39,964	0

There are multiple benefits of the solution: Use the renewable energies to power the mining chips, reuse the heat the chips self-produced.

Benefit 1:
Accelerate the return on energy investment

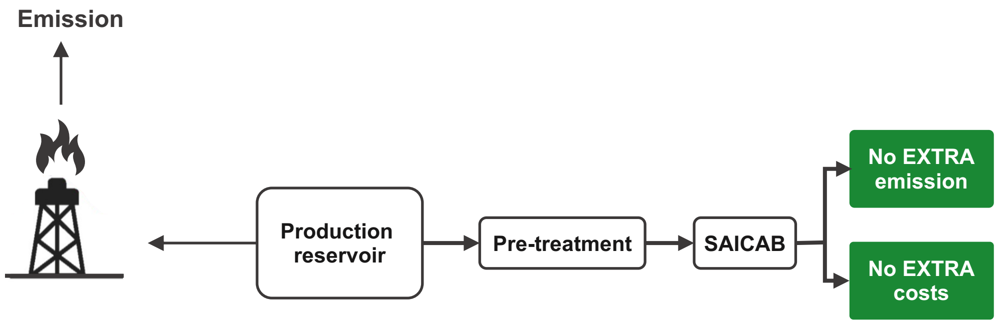
Benefit 2:
Accelerate the return on computing investment

Benefit 3:
Reduce Carbon Emissions

Industry Solutions

Associated Gas Electricity

- Flue gases from fossil fuel-based electricity-generating units are the major concentrated CO2 sources worldwide.
- Directly discharge the pollutants into air will cause massive carbon emissions.



Significant Source of Air Emissions

Natural gas is often produced as a by-product (i.e. associated gas) during oil extraction. If the oil project has been planned in a way that does not incorporate access to a gas market or other productive uses, then there are only a few options left for the gas: an operator must choose whether to use it onsite for its own operations, reinject it into the ground, flare it or vent it to the atmosphere.

Real-world Condition

In theory, more than 99% of the natural gas is combusted when flaring is done in optimal conditions. In real-world conditions, however, flaring can be significantly less efficient due to sub-optimal combustion dynamics (e.g. variable heat content, flame instability). As a result, substantial volumes of methane can be released along with black carbon and nitrous oxide – all potent GHGs.

Successful Cases

There can be ways to use the gas productively even in the absence of such a connection.

For example, onshore operators in the United States have field-trialled a variety of flaring reduction technologies. Additionally, a study released by the Climate and Clean Air Coalition reported positive net present values and payback times of less than two years in six of eight flaring reduction projects in Columbia from 2017 to 2019.

Source: IEA

Associated Gas Electricity

It will be important to minimize the flow of new projects that might require flaring; this is a question of regulation and careful project selection and design. For existing sources of flaring, in the majority of cases the optimal solution to flaring is to extend the natural gas grid.

Associated gas burning + coal powered computing: The associated gases will be burned out and the computing center will be powered by electricity generated by coal.
Associated gas liquified + coal powered computing: The associated gases will be liquified and send to natural gas powers stations, and the computing center will be powered by electricity generated by coal.
Associated gas powered computing: The associated gases will be used to power the computing center onsite.

	Unit	Associated gas burning + coal powered computing	Associated gas liquified + coal powered computing	Associated gas powered computing
Payback period on investing in flaring gases recollection	Year	-	4 — 5	2 — 3
Payback period for investing in computing hosting	Year	2	2	1
Carbon emissions	Tonne	83,294	83,294	43,630

Accelerate the return on energy-side investment

Accelerate the return on computing-side investment

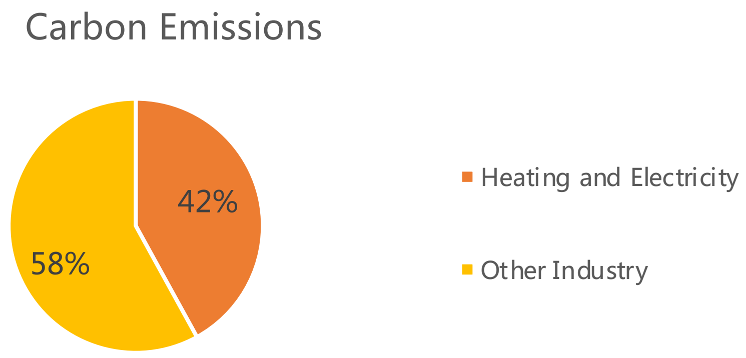
Reduce Carbon Emissions

Industry Solutions

Summary

SAI's Influence Power

SAI helps reduce global carbon emissions in the computing, energy and heating industries.



Within the development of computing needs more electricity

Currently **8%** + → 2030 **15%**

It is estimated that 15% of the world's electricity generation will be used for computing in 2030

145 bcm

Around 145 bcm of natural gas were flared in 2018, a slight increase from levels in previous years and broadly equal to gas demand across the continent of Africa. This resulted in emissions of roughly 275 $MtCO_2$, as well as some methane emissions (from uncombusted portions of flares) and other GHGs such as black carbon and nitrogen oxide.

Annual wasted electricity generated by hydropower are more than 10 billion kWh in China

Any industry will cause huge carbon emissions to society. In the solution given by SAI, the three industries can reduce their carbon emissions and improve their energy efficiency.

The more the solutions offered by SAI are used, the more carbon emissions can be reduced, thereby we can achieve a carbon neutrality sooner than we expect.

International Commitment

Global Influence

UNFCCC Climate Neutral Now Initiative

SAI joined the UNFCCC Climate Neutral Now (UNFCCC Climate Neutral Now, hereinafter referred to as the "Neutral Initiative") launched by the Secretariat of the United Nations Framework Convention on Climate Change (UNFCCC).
This global computing energy operator empowered by clean energy for high-performance chips has become the world's first digital asset company to join the UNFCCC, and also the first in the industry to sign a commitment to the United Nations to reduce the cost by providing clean computing power. SAI is committed to reducing carbon emissions and achieving carbon neutrality by providing clean computing power.

The initiative is promoted and implemented by the secretariat of the UNFCCC, which provides scientific methods to reduce corporate carbon footprints and help achieve carbon neutrality. As of the end of 2020, there have been a number of contracted members including various enterprises, organizations, international and intergovernmental agencies, United Nations agencies, individuals, etc., covering multiple industries such as finance, technology, and engineering.

Organization of Clean Energy and Computing

In order to get more attention from its peers and lead to momentum changes by the industry, SAI found a non-profit membership association called OCEC (Organization of Clean Energy and Computing) and is currently open to applicants who want to join. Not only any organizations involved in cryptocurrency mining and energy industries are welcomed, but OCEC also welcomes the media companies, research institutes, public to participate.

Benefits of joining OCEC:
All members of OCEC have the right to reach to a number of resources, including connections with clean energy suppliers, technical guidance for the transformation of traditional thermal power mines in order to reduce their carbon emissions, etc. The members who use clean energy to power its mining centers will be promoted by OCEC through all its channels.

CLIMATE NEUTRAL NOW

UNFCCC

Conclusion and Prospects

Closing Notes

SAI's development philosophy has always been to do its best to make contributions to society. As the first company in the industry to publish a carbon footprint report, SAI wants to set an example and lead other companies in the industry to make changes and contribute their efforts to promote carbon neutrality for the entire society.

According to SAI’s carbon footprint report, the electricity used for powering the chips mainly contributed to SAI’s carbon emissions. SAI can move its SAICAB to anywhere where the power plants are located, which means SAI can use up to 100% renewable energy to power its crypto mining and supercomputing chips. It will make SAI’s total carbon emissions reach less than 1000 tons of Carbon Dioxide (equivalent) per year. SAI can simply buy carbon credits to offset the emissions and achieve carbon neutrality.

More importantly, SAI’s innovative technologies can help reduce carbon emissions from different aspects.

For the heating industry, the electricity used by the chips counts for 90% of the total electricity consumed in our crypto mining and supercomputing centers. 90% of the heat generated by the chips was collected and reuse for central heating of residential houses, farms, public facilities, etc.

This allows customers to reduce the cost of computing power and heating power by about 35% while effectively reducing the power supporting investment, realizing a clean computing power solution.

Conclusion and Prospects

Closing Notes

For renewable energy peak cut, SAICAB can be used as a "profitable" battery to consume idle electricity. bitcoin miners, on the other hand, are an ideal complementary technology for renewables and storage. Combining generation with both storage and miners presents a better overall value proposition than building generation and storage alone.

For flue gases, directly polluting the gases into the air will cause great damage to the earth's environment. In a traditional setup, a significant portion of the energy contained in the blast-furnace gas goes unutilized: tremendous amounts of pressure and heat are wasted when the stream of gas hits a simple throttling group that reduces pressure to values suitable for the low-pressure gas network. By using the carbon capture and sequestration (CCS) technology and turbines to reuse the wasted gases, SAI can use the energy to power its SAICAB, thereby reduce the carbon emissions and also supply the heat to the residents houses, farms, and other public facilities.

The power of a person and a company is small. SAI has actively participated in many international organizations and initiatives to provide solutions to the global climate crisis. As the first company in the crypto mining industry who joined the UNFCCC Climate Neutral Now initiative, SAI is using its influence to lead other peers to make changes together. As the founder of OCEC, SAI is expected to lead OCEC to contribute a long-term impact on the four dimensions of environment, energy, economy, and society. In the environmental dimension, the negative impact of cryptocurrency mining and related activities on human and environmental health can be reduced. The energy dimension is to increase the diversity of energy measurement for cryptocurrency mining and increase the use of clean energy. In the economic dimension, the goal is to demonstrate the inherent benefits that the OCEC brings to cryptocurrency miners and related organizations, especially the economic profitability. The social goal is to have a greater influence on a global scale, promote more global knowledge exchanges about clean computing power, and improve the traceability of clean computing power.

While the world will need to reach net-zero, those of us who can afford to move faster and go further should do so.

Together, we make world better.

If you have any questions or concerns, please contact:

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