1414 Degrees Ltd

Investor Update – November 2021

Matt Squire – Chief Executive Officer

info@1414degrees.com.au

1414 Degrees (ASX: 14D) - positioned for success

1. Leveraging off our investments to date:
   - Intellectual property and know-how: innovative energy storage technology
   - 5 years practical knowledge - we know what we have to solve
   - Supportive government and stakeholders

2. High degree of industry interest in our technology - circa $4million future funding support for SiBox from Woodside and Australian Government MMI

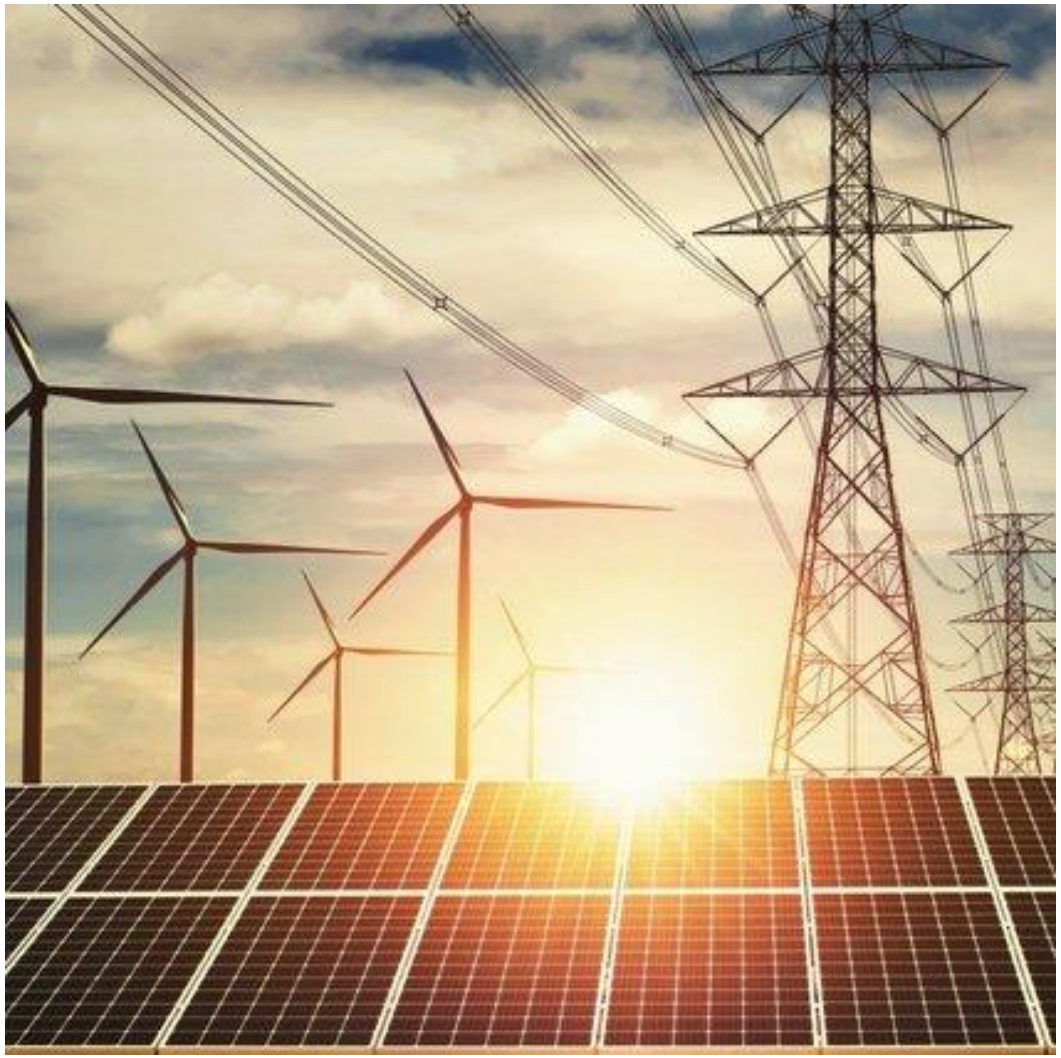
3. 100% owner of development rights to a world class renewable energy site in Port Augusta, SA (Aurora Energy Project)

- c 3,500 retail shareholders, no major institutional investors
- $25.1 million Market Cap, $3.6 million cash (end October)
- No debt or encumbrances
- $14.0 million tax losses

Focussed small cap energy company with 100% renewables exposure and large upside

Clean energy transition needs storage … and heat matters

- Solar and wind are the engines of change
- Reduced funding available for fossil fuels
- Gas prices are going up
- Society is now demanding action on renewables



What we need to do:

- Back renewables even harder - energy storage is essential
- Use existing infrastructure where possible / be flexible

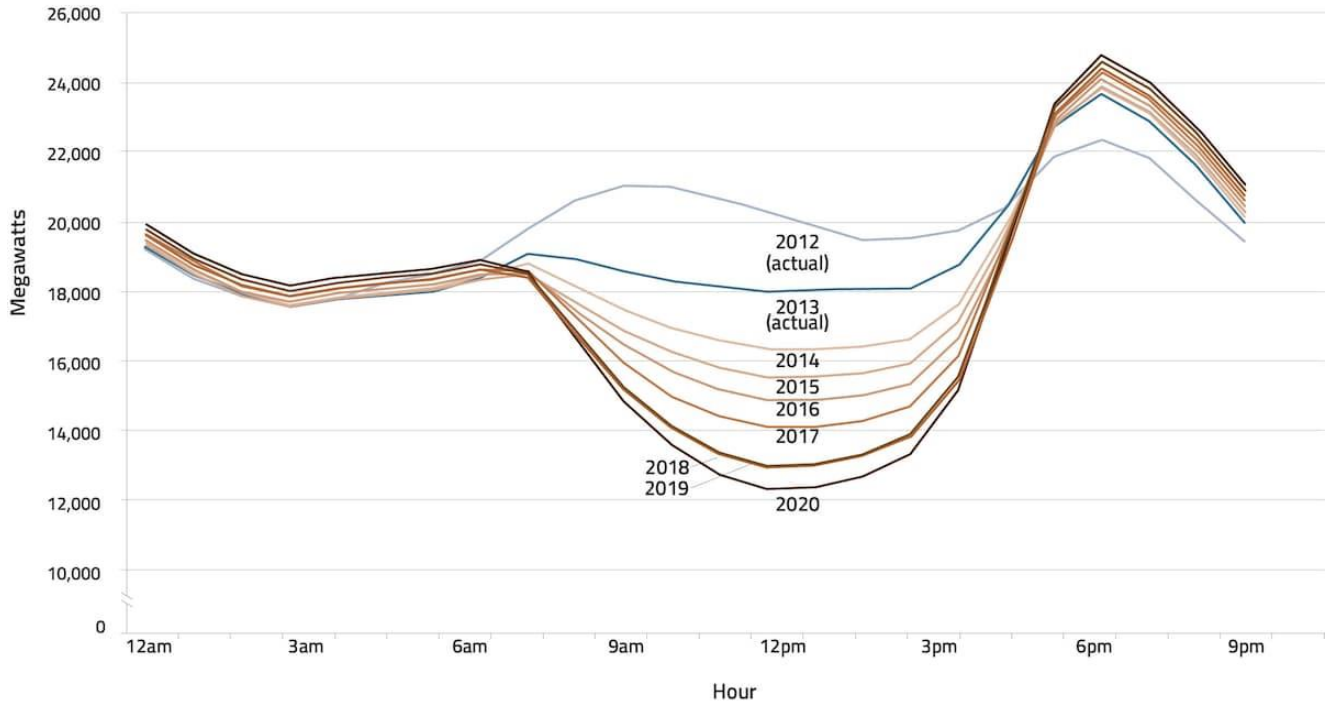
What is not clear:

- How do we replace fossil fuels in many industrial applications?
- Who pays for the transition to clean energy infrastructure?

1414 Degrees is developing a storage solution that delivers clean industrial heat

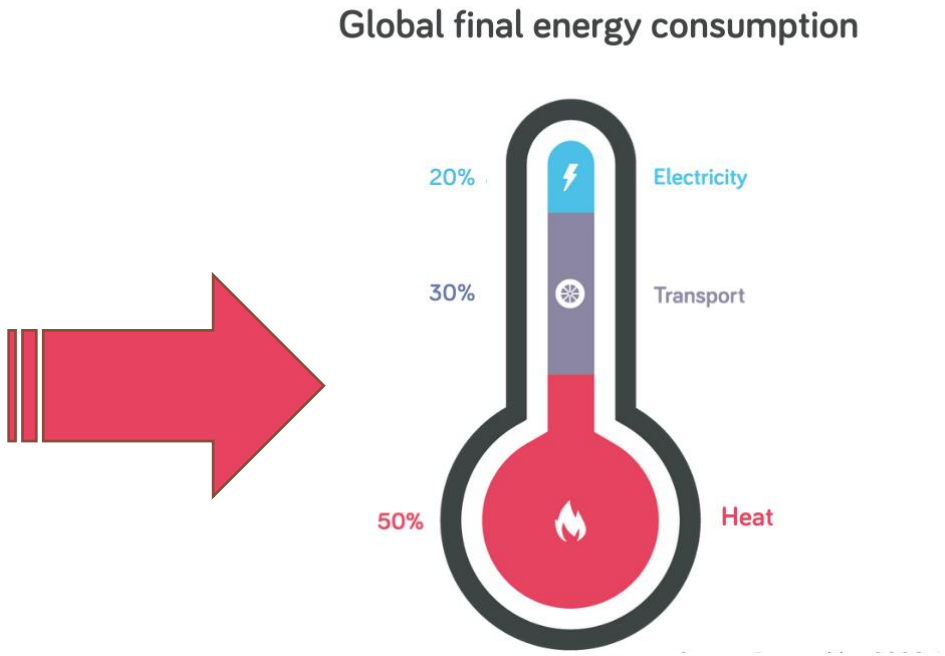
Managing supply and demand - the rise of intermittent renewables

Electricity “Duck Curve”



California Independent System Operator (CAISO) predicts net electricity demand over time on a typical spring day in California

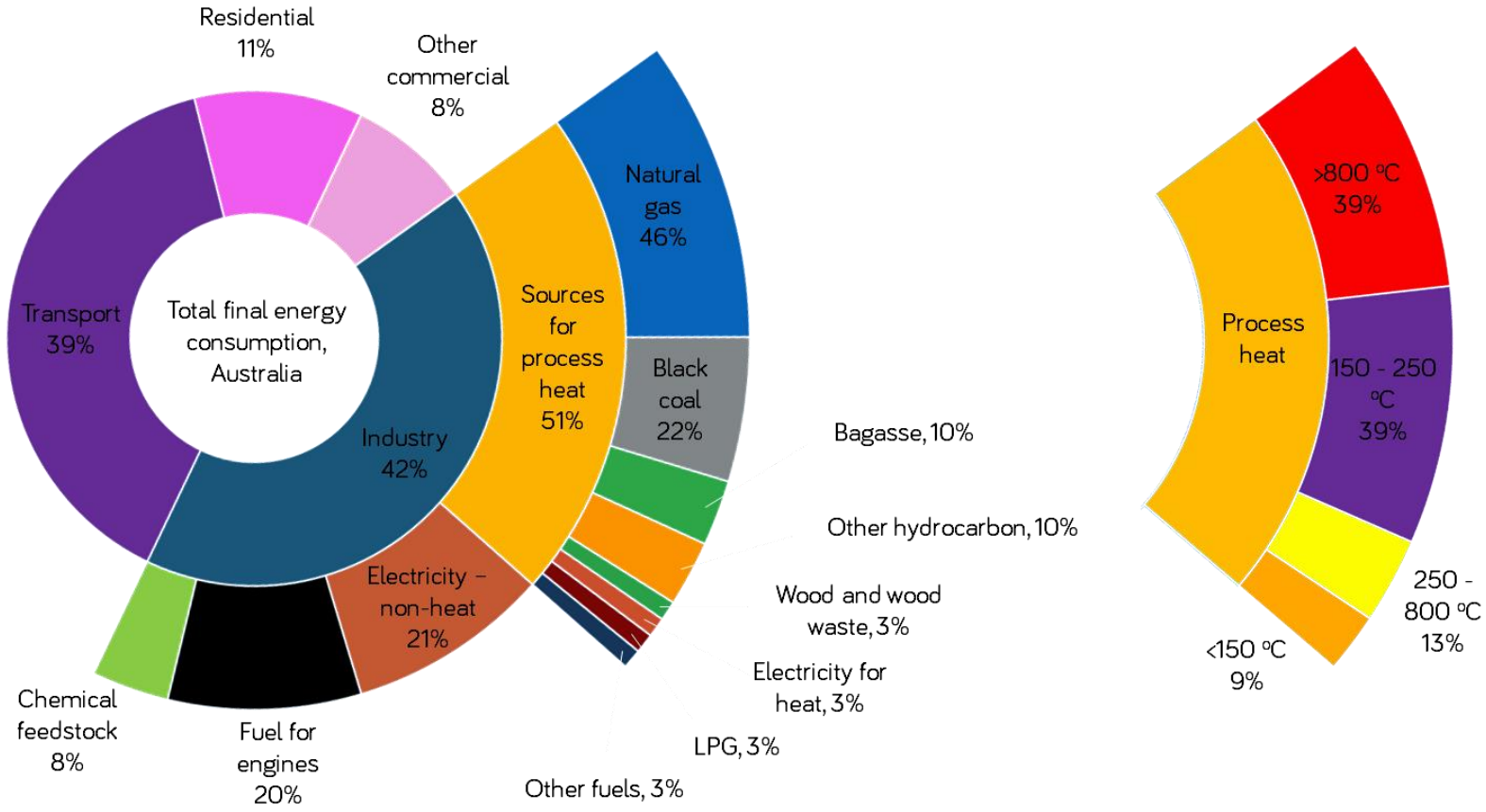
Simplistic end-use energy demand



Solutions are required that embrace renewables whilst still supplying the world's energy needs

Why do we need to think about clean heat?

- Heat is ~50% of total global energy demand
- ~50% of energy used by industry is for process heat
- The demand from industry and governments for cleaner energy solutions means there is huge market gap and potential for clean heat
- Industrial processes need a clean heat source to decarbonise
- There are no commercial solutions for long duration high-temperature process heat from renewable electricity



Source: ITP Renewable Energy Options for Industrial Process Heat, November 2019

1414 Degrees is working on the solution

Past

- Listed on the ASX in 2018 (14D)
- Proprietary thermal energy storage technology with IP protection from successful patent applications
- R&D focus on long-duration energy storage utilising the thermal properties of Silicon – supported by University of Adelaide collaboration, Commonwealth and State Government funding
- Rapid "learning by doing" approach through initial pilot projects, redesign of Silicon energy storage methods

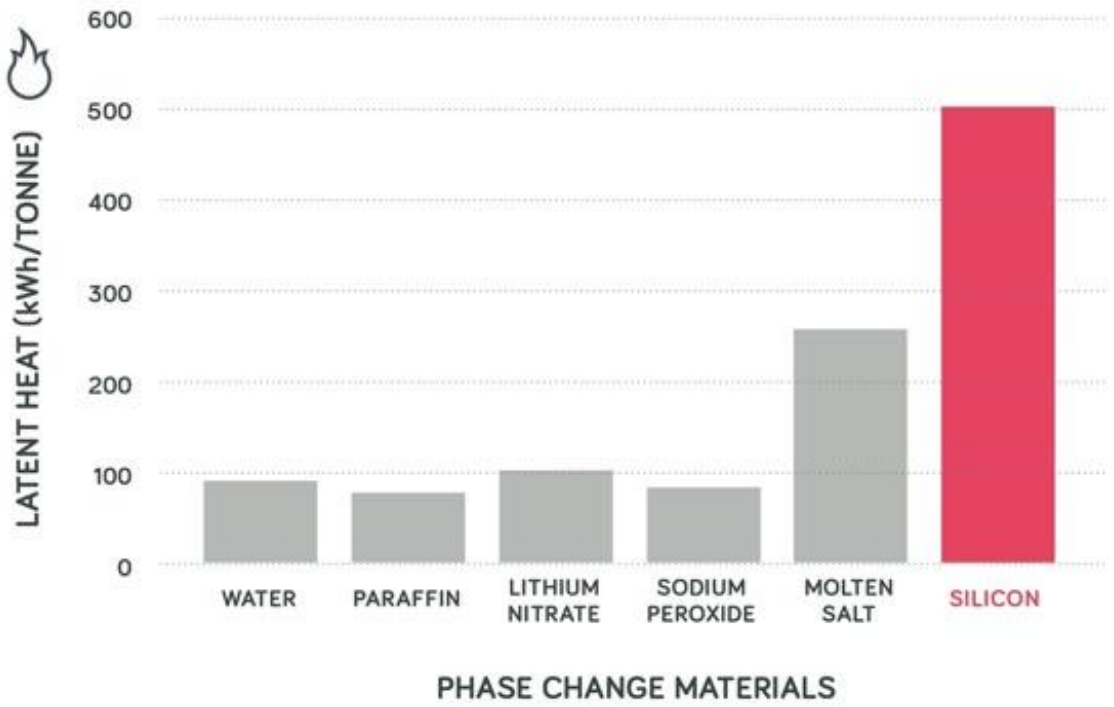
Present

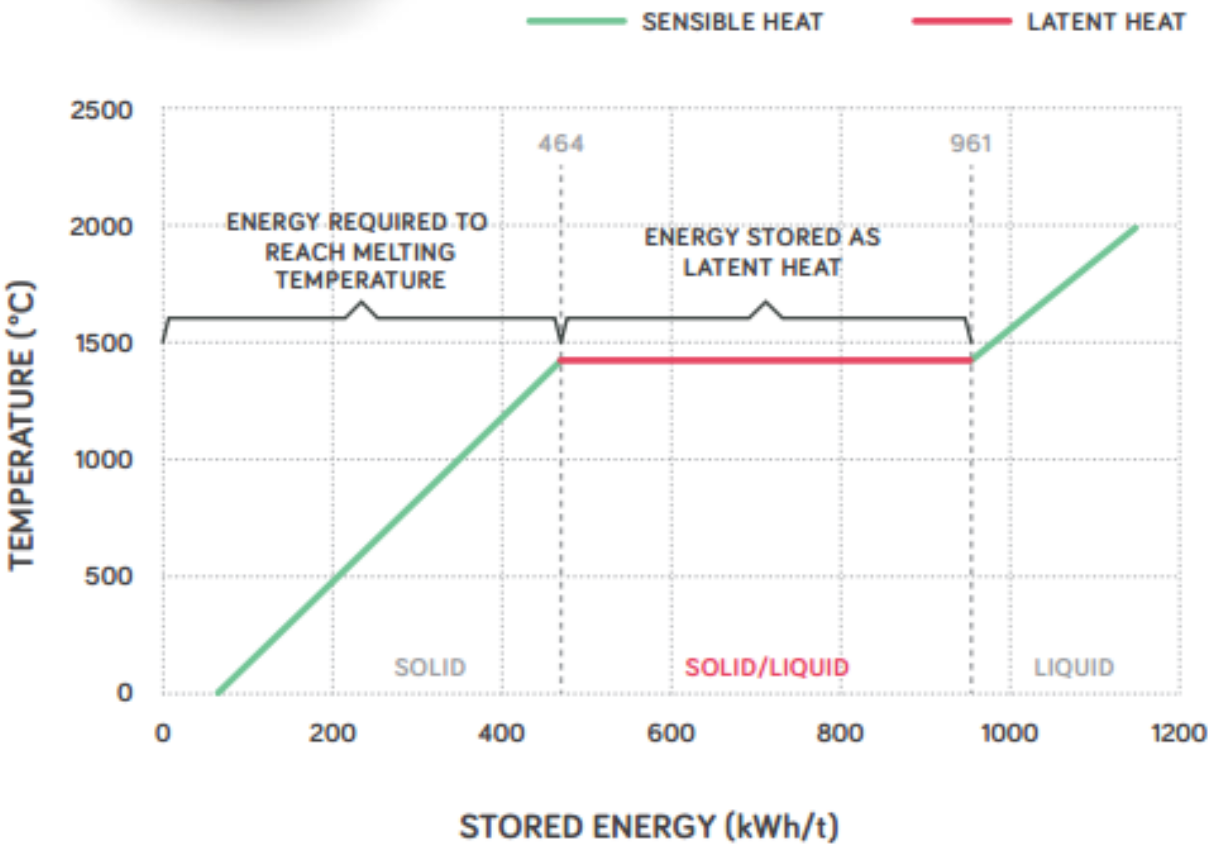
- Co-located all staff to one site, focussed on technology development
- New optimised approach - SiBox™ technology and demonstration module project underway in conjunction with Woodside and further funding support from Australian Government Modern Manufacturing Initiative (MMI)
- Developer of a world class solar energy site in Port Augusta, South Australia - Aurora Energy Project

Reinvigorating our thermal storage technology and progressing the Aurora Energy Project

Utilising the properties of Silicon - phase change energy storage

- High energy storage capacity - > 500kWh/tonne
- High melting (operating) temperature
- High energy storage density
- Efficient energy storage
- Consistent, high temperature (highly usable) energy output





Renewed and focussed approach to our Silicon storage technology

Previous approach

TESS-IND	For industry (heat and power)
TESS-GRID	For utilities and large industry (heat and power)
GAS-TESS	For biogas facilities (heat and power)
TESS-STEAM	For industrial process heat applications (heat only)

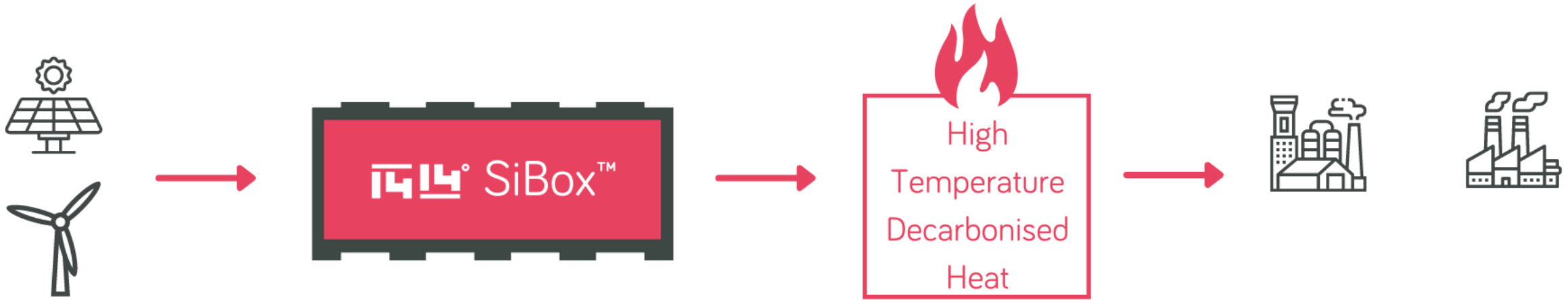
New focus - single module

SiBox™	Scalable energy storage solution, adaptable to all users. Modular approach that delivers energy in its most usable form - high temperature heat.

SiBox™

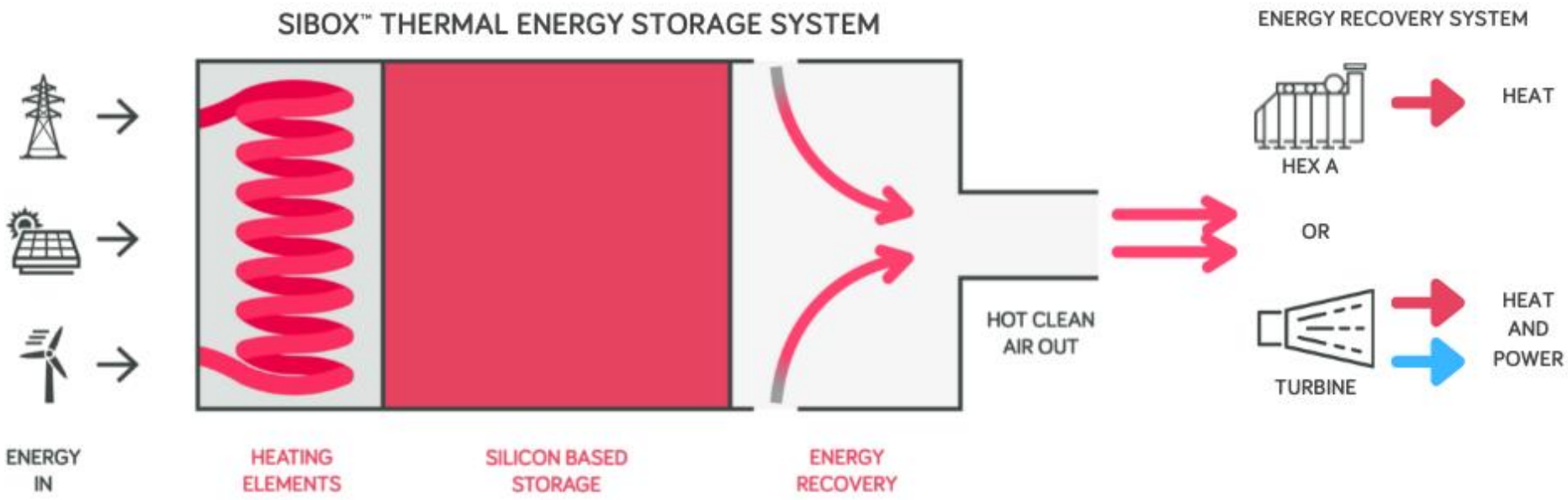
Focus is now on a single energy decarbonising solution that can be used by all

Renewed focus on our energy storage technology: SiBox™



… because heat matters!

Renewed focus on our energy storage technology: SiBox™



Energy Input:

Excess solar / wind off the grid via radiative electrical elements

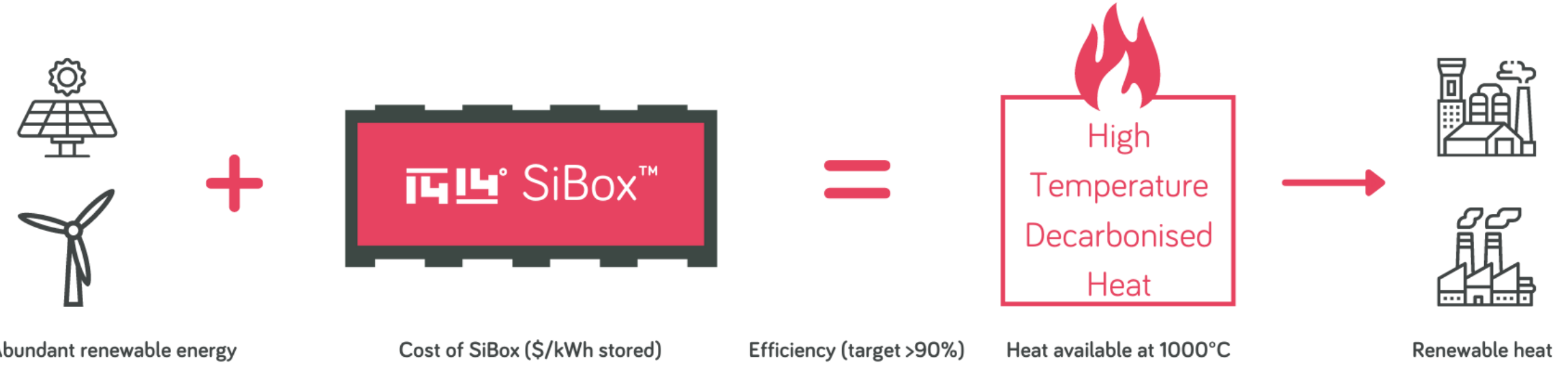
Heat Store:

- Heat is stored in silicon-based Phase Change Material (PCM)
- Heat transfer models used to maximise storage density
- Insulation designed to minimise thermal losses

Heat Output:

- Stored heat extracted as high temperature, low pressure, air (~1000°C)
- Heat converted in Energy Recovery System (ERS) selected for the required output
- No internal moving parts
- Maximum flexibility for all energy users

SiBox economics: example of how it works



Abundant renewable energy | Cost of SiBox ($/kWh stored) | Efficiency (target >90%) | Heat available at 1000°C | Renewable heat

Example of renewable maths (A$)

1 MWh/d, 365 MWh pa

$20/MWh

$5.50/GJ

+

Future cost challenge:

$150/kWh capital (long life > 20yrs)

$34/MWh

$9.40/GJ

+

Gross up for 90%

$4/MWh

$1.00/GJ

=

$58/MWh heat

$16/GJ Delivered

Process

Steam

Power Generation

Other

Our vision: clean heat at costs equivalent to fossil fuels for all industries

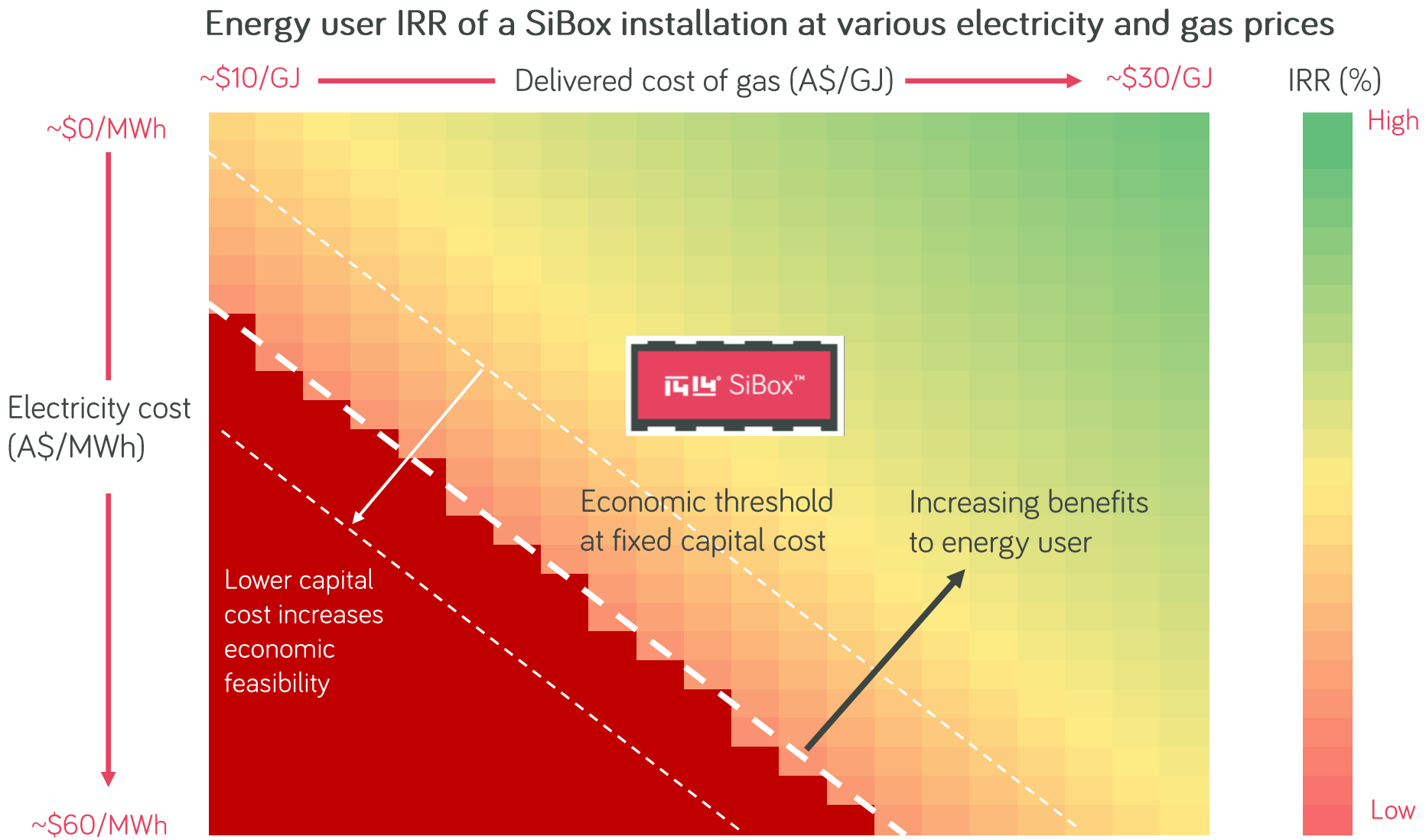
SiBox economics: conversion of cheaper electricity to clean heat

Energy user benefits of SiBox:

- Increase purchase of intra-day renewable electricity (store)
- Re-deliver as clean, high temperature heat
- Reduce daily consumption of fossil fuel (gas / LPG)
- Fixed capital recovery charge

Other benefits:

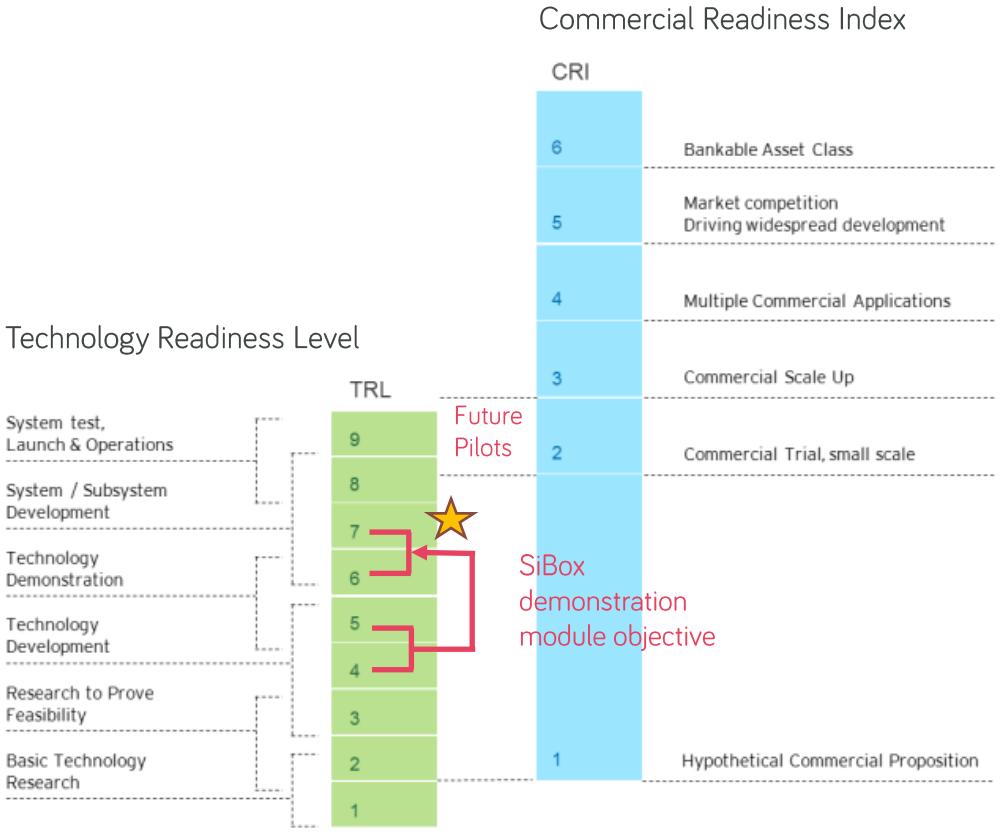
- Increased electricity network utilisation (lower average costs)
- Emissions penalties (branding)
- Reduce gas reservation (MDQ) charges
- Reduce gas network charges
- Operational flexibility



SiBox design concept should be very attractive for energy users, we now need to prove it

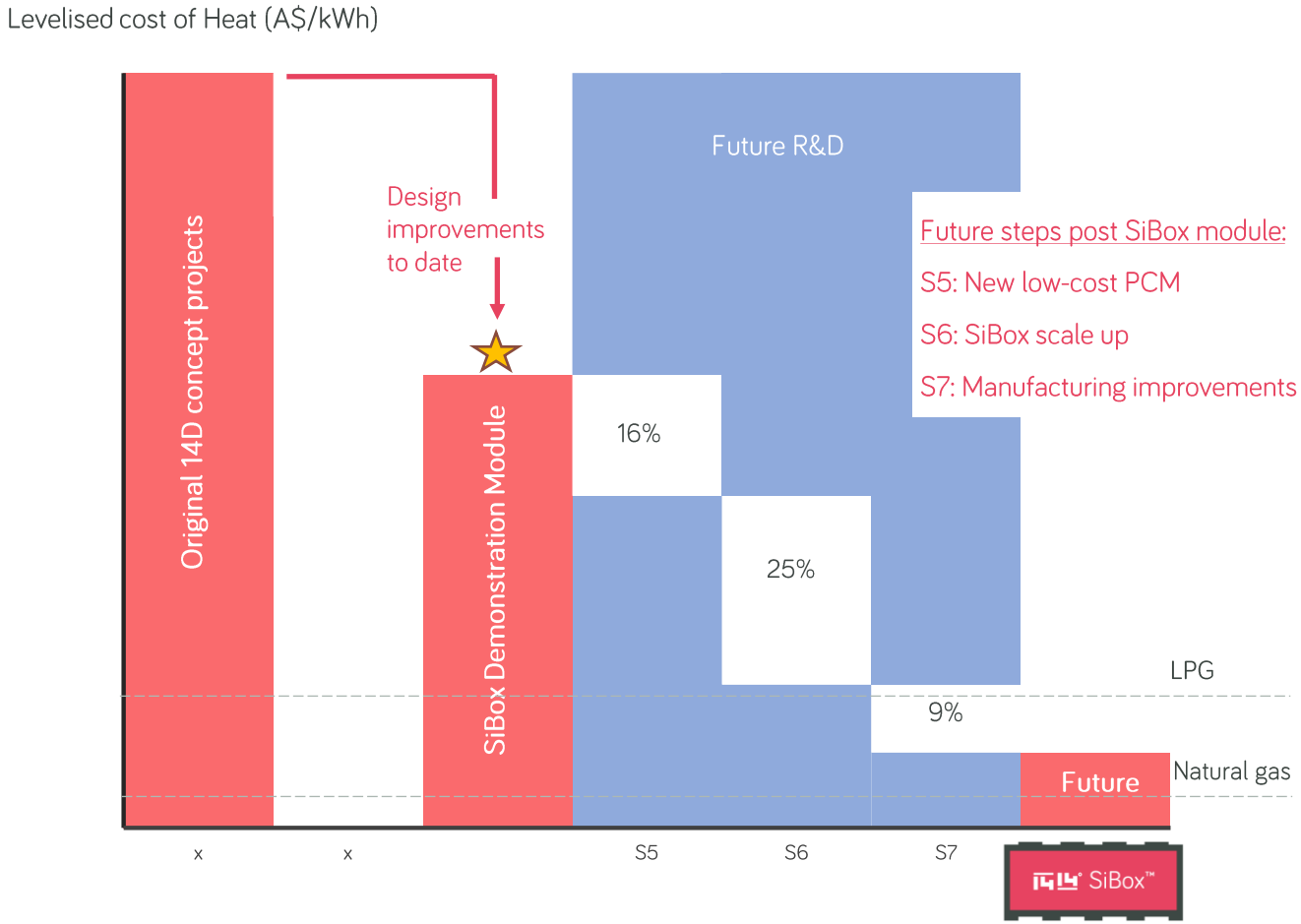
SiBox development: Technical and cost pathway

Technology Readiness Level status



ARENA: Technology Readiness Levels for Renewable Energy Sectors

SiBox cost reduction pathway



Proving the design and then driving down cost to achieve long term commercialisation

SiBox technology: Demonstration module project

Cal 2021 | 2022 | 2023 | 2024 | 2025 +

Final design and procurement

Construct and commission

Performance test and validation

Woodside SPV partnership decision

Commercialisation (pilots/manufacturing) studies

Total project circa A$4.5 - 5 million

Funding support:

- Woodside development agreement ($2.0 million)
- Commonwealth Government MMI Grant ($2.2 million)

Future pilot projects at end users

Ongoing research and development

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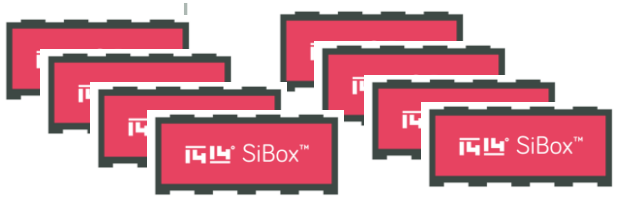
10's

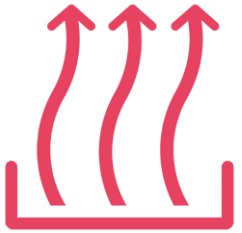


Driving our thermal storage technology towards commercialisation and manufacture

Advantages of SiBox

High temperature heat:

SiBox's operating temperature far exceeds the capabilities of current commercial thermal energy storage alternatives, such as molten salts (<600°C)



Efficient:

SiBox has a thermal efficiency of greater than 90%, based on one cycle per day

Flexible energy output:

SiBox can be flexibly configured to suit a wide variety of applications including integration in existing thermal power plants, high temperature processing and other combined heat and power applications

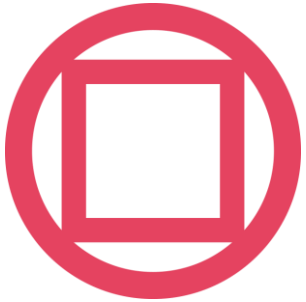
Cost effective:

SiBox target levelised cost of heat (LCOH), will be able to provide manufacturers and other early adopters with a clean, reliable and cost-effective process heat alternative

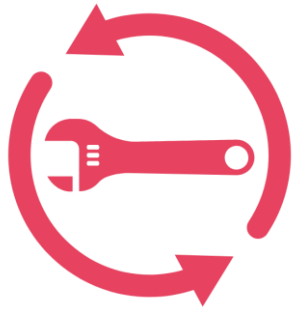
Advantages of SiBox

Scalable:
Using its modular design SiBox systems can be cost-effectively scaled to meet customer requirements and integrate into existing facilities

Flexible location:
SiBox can be located where required, it does not need to be located with a renewable energy source



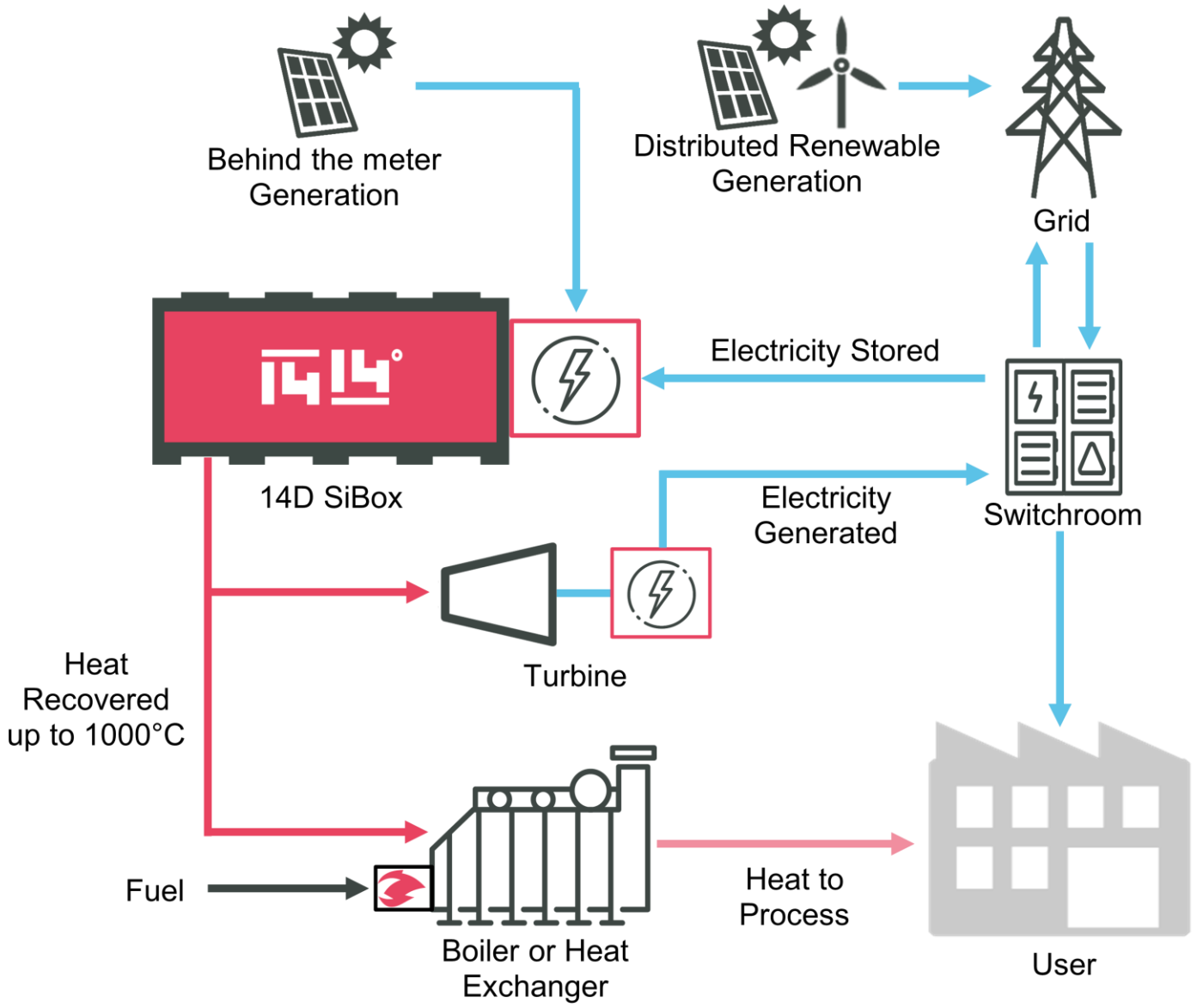
Compact size:
SiBox can store up to five times the heat of nitrate-based molten salts and hence has a smaller footprint than other thermal storage materials



Simple operation and maintenance:
SiBox has no moving parts, except air and there is no need to pump molten liquids

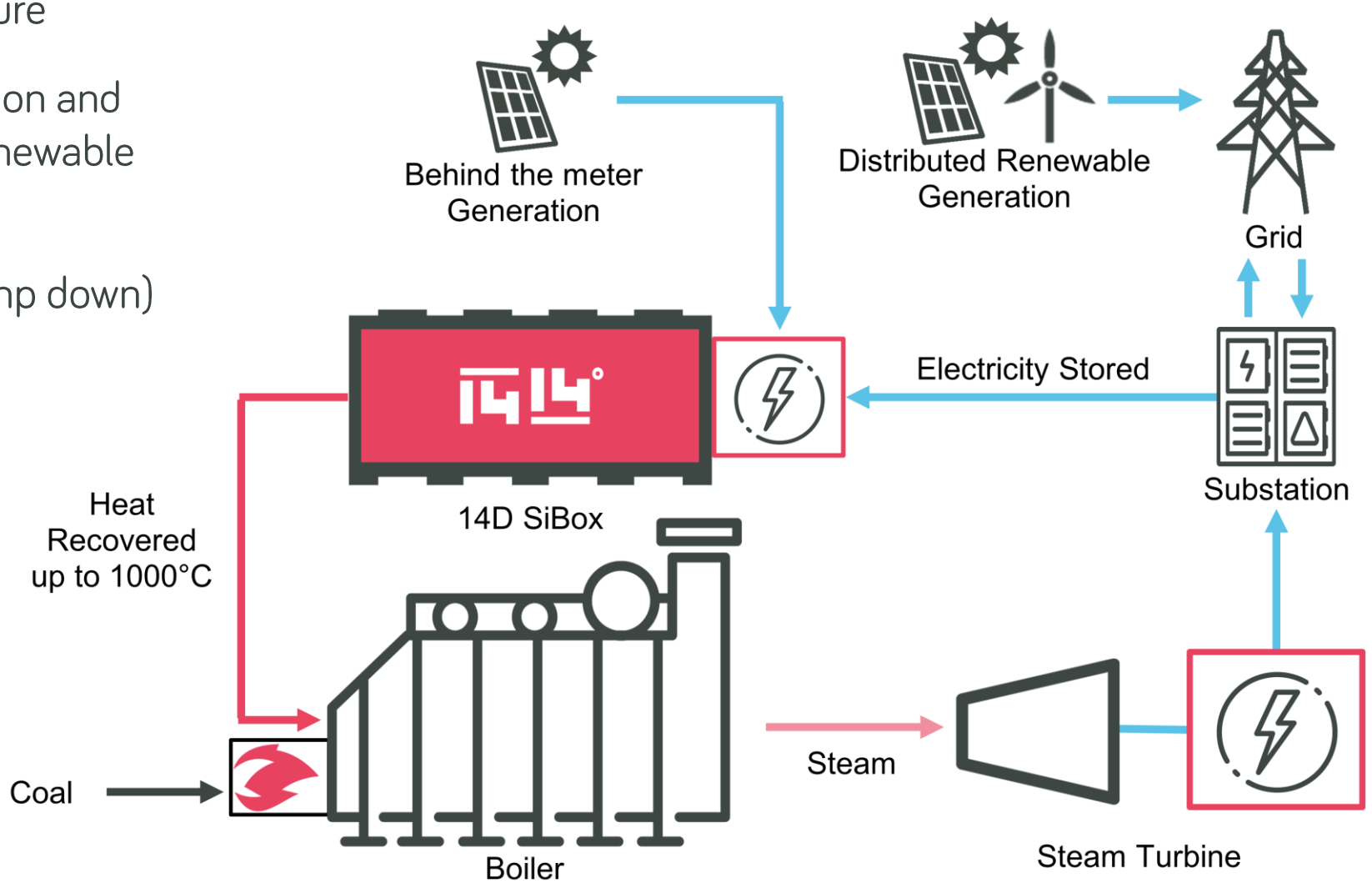
SiBox example: Industrial energy user

- High temperature (up to 1000°C) integration to existing process
- Combined heat and power solution
- Absorb low-cost renewable power
- Offset fuel usage and decarbonise
- Provide security of energy supply against future price fluctuations or interruptions
- Increase operational flexibility
- Peak demand management to reduce network capacity charges (TUoS, DUoS)



SiBox example: repurpose existing power generation assets

- Integrate with existing infrastructure
- Reduce / remove coal consumption and decarbonise by offsetting with renewable power
- Increase flexibility (ramp up / ramp down)
- Maintain spinning reserve
- Enable energy arbitrage

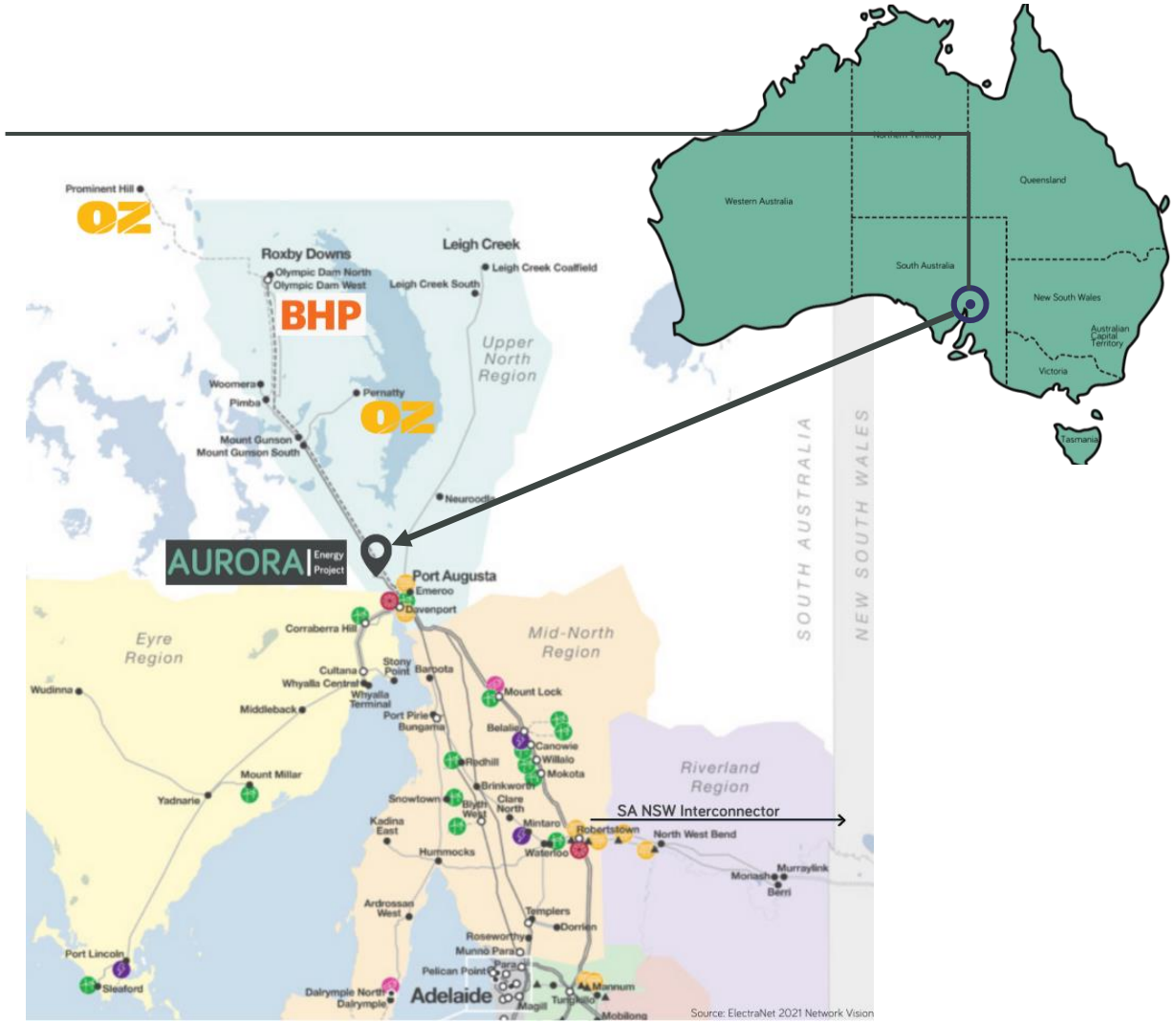


AURORA | Energy Project

Storage and baseload renewable energy

Aurora Energy Project: Location

- Approximately 30km north of Port Augusta, South Australia
  - Site of the previously approved SolarReserve Concentrated Solar Power (CSP) project
- Adjacent to significant infrastructure:
  - Hill-to-Hill 275kV transmission line connected to NEM
  - Stuart Highway
  - Skilled workforce in Port Augusta
- Transmission line connected to a long-term globally significant mining province
- Project rights held by 100% owned 1414 Degrees subsidiary Silicon Aurora Ltd acquired in 2019

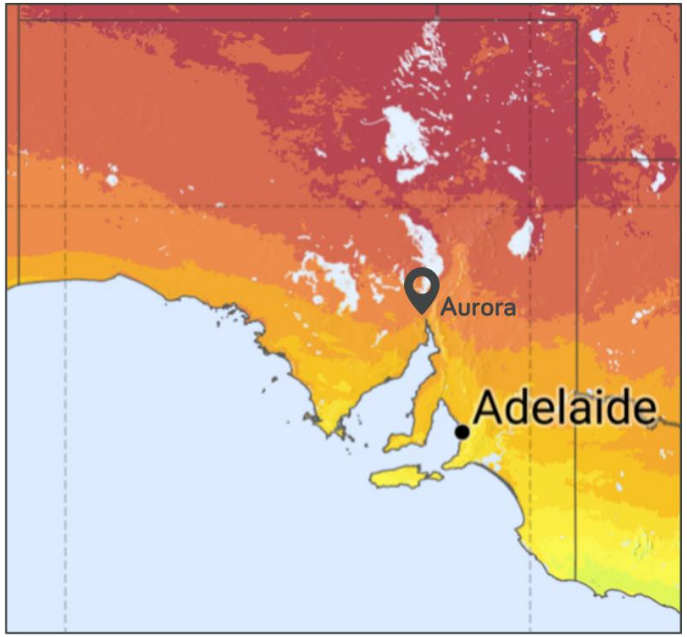


Since acquiring in 2019 , 1414 Degrees has continued to invest in the Aurora Energy Project

Aurora Energy Project: Site features

- Excellent solar resource
  - Long term data monitoring (since November 2016)
  - High value DNI (Direct Normal Irradiance) resource
- Lease area in excess of 1,500 ha
- Largely flat, complete geotechnical surveys

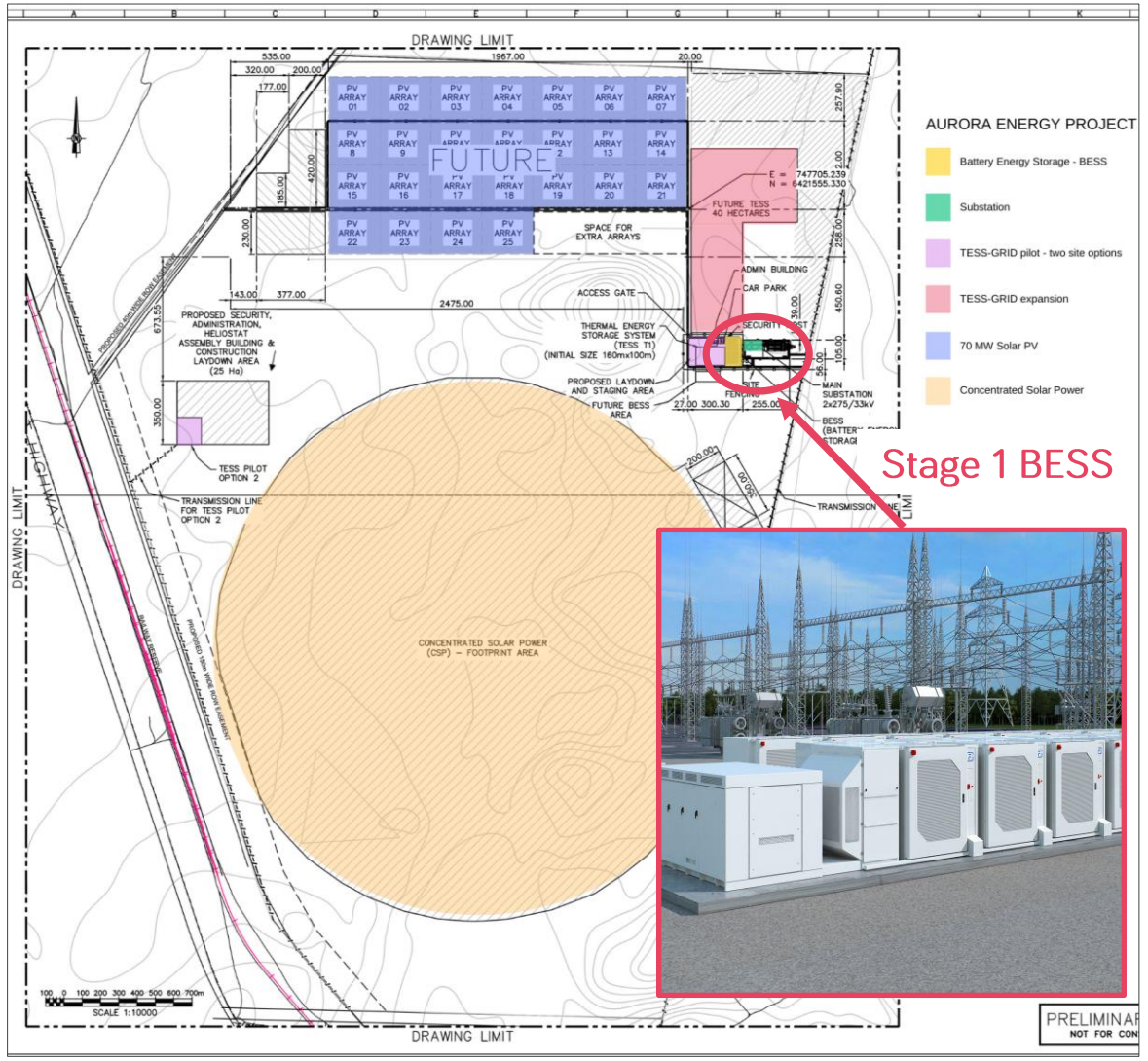
World class solar resource



Solar monitoring station on-site

Large scale renewable energy development connected to the NEM

- Planned renewable hybrid power plant
- Stage 1 project - 140MW/280MWhr battery (BESS)
  - Strong business case with revenues from market arbitrage, frequency control ancillary services and fast frequency response
- Future stages (also permitted under DA)
  - 70MW solar PV generation
  - 150MW Concentrated Solar Power (CSP)
  - Thermal Energy Storage demonstration
- Energy generated will contribute to the national electricity grid via new connection to ElectraNet transmission infrastructure
- 100% owned by Silicon Aurora Ltd



Development approval variation lodged with SA Government and expected Nov 2021

Future activities and indicative timeframe

Cal 2021 | 2022 | 2023 | 2024 | 25 Years +

Final design

Connection process

Final Investment Decision (FID)

Construction

AURORA Energy Project

Operation

Equipment selection

Confirmation with stakeholders

Potential partnering process

Generator Performance Standards Study

AEMO 5.3.4 Letter

ElectraNet Transmission Connection Agreement

Ongoing stakeholder engagement and consultation

Circa. $2.5 million to FID

Port Augusta City Council

Bungala Aboriginal Corporation

Government of South Australia
Department for Energy and Mining

OZ

Multi decade cashflows

Material expansion options

Stage 1 BESS to unlock the long term strategic value of the Aurora Energy site

Simple corporate focus over the next 12-18 months: exiting times ahead

- We are a small, lean organisation
- Our projects are clear and well defined

1. Build the SiBox

- Excellent partners validate the potential of our technology
- $4.2M of funding support from Woodside and Commonwealth Government
- Unique renewable energy storage system focused on high temperature heat
- Flexible, modular design
- Enabler for future renewables based manufacturing revolution

2. Take Aurora to Final Investment Decision

- Stage 1 Battery project will provide long term cashflow
- Unlocks future expansions at the site and in a world class solar region

SiBox™

Matt Squire, CEO, at Aurora Energy Project site

1414 Degrees is back on track, a compelling renewable energy opportunity

Further information

New leadership: Lean, strong governance, focus on shareholder value

Board & Management

TONY SACRE
Chair & Non-Executive Director

Tony is Chief Executive Officer of the Bentleys Network, an international network of advisory and accounting firms. He is also Chair of Allinial Global – Asia Pacific, the second largest association of accounting and consulting firms in the world. Prior to joining the Bentleys Network, Tony was Chief Executive Officer of the Sydney Stock Exchange.

PETER GAN
Non-Executive Director

Peter has held Managing Director, CEO, Company Secretary, and other senior management positions in a variety of listed public and private companies. His roles have spanned multiple industries including technology start-ups, financial services and energy markets in Australia, USA, UK, Netherland, Belgium, Ireland, China, Hong Kong and South-East Asia.

DANA LARSON
Non-Executive Director

Dana is an energy expert with 18 years of experience primarily focusing on acquisitions, reservoir engineering, financial modelling, and engineering management. He consults for hedge funds and high net worth individuals on exploration & production, mining, and renewable energy and is currently running an energy acquisition and divestiture consultancy.

MATTHEW SQUIRE
Chief Executive Officer

Matt has been in the energy sector for over 20 years working for Australian and international publicly listed companies including BG Group (now Shell), Santos, Origin and Beach Energy. Matt has extensive experience in the oil and gas, power generation and broader energy sector and has led and managed large energy transactions and multi hundred million $ growth initiatives in Australia. Matt has degrees in Engineering and Economics.

JORDAN PARHAM
Chief Operating Officer

Jordan oversees the management of a broad engineering and technical team. Jordan brings his experience as an engineer and a unique combination of technical, strategic, business and leadership skills to his role. He has successfully led teams to deliver local, national and international projects. Jordan has a strong interest and track record in developing clean thermal energy technology and a comprehensive understanding of the energy sector in Australia and globally.

Strong in-house technical team backed by external partners

- Multi-disciplinary team of technical specialists
- Further 2 graduate engineers starting December ‘21
- Dedicated workshop for research and development
- Strategic partnerships with companies and Universities to access specialised skills and experience

Innovation only happens through actually doing it!

Early Work

- Original concept by CSIRO
- University of Adelaide R&D on containment of Silicon PCM
- Engineering verification and concept design refinement

TESS-Demonstrator

- Energy storage and recovery proof of concept
- Completed 2016
- AusIndustry grant ($440K) to build the prototype (funds matched by 1414 Degrees)

Lonsdale Project (TESS-IND)

- Commercial scale pilot of full system operation
- 20 times scale up in size from demonstrator
- Commissioned Sep 2018
- AusIndustry grant ($560K) to build TESS commercial demonstrator

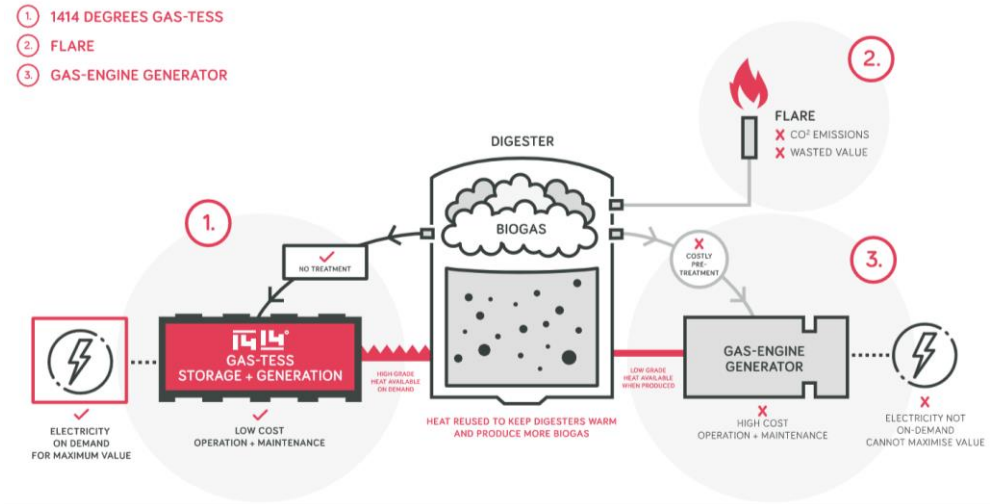
Glenelg Project (GAS-TESS)

- Commercial scale pilot project
- 20 times scale up in size from demonstrator
- Commissioned May 2019
- Renewable Technology Fund grant ($1.6m) from SA Government

1414 Degrees maintains the benefits of > 6 years work on Silicon thermal storage

Glenelg project (GAS-TESS) biogas energy storage

- Project in conjunction with SA Water and co-funding by SA Government's Renewable Technology Fund
- Energy source - biogas fired through gas burners
- Time-shifts energy for later electricity generation and provides a hot water feed to the waste-treatment digesters to increase output



- 1.5MW (burner capacity) heating input
- Up to 200kW electrical output
- Up to 1MW heat output

Available for future reinvestment and demonstration

Sibox: New technology for a low-carbon energy future

Providing industrial processes with a high temperature renewable heat source

Solving energy security as fossil fuelled power stations are decommissioned

... because heat matters!