



INNER WEST



# Inner West Go Solar Program: The Business Case for Solar

27<sup>th</sup> October 2021

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GM Corporate Solutions  
Energy Action Limited

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Co-Founder  
Young Henrys

27 October 2021

# Solar assessment for business webinar – microbreweries & distilleries

## Agenda

- 3:00 **Welcome & council support on offer:**  
*Sonya Williams, Renewable Energy Innovation Officer,  
Inner West Council*
- 3:05 **Case study: Engaging your community to go solar**  
*Richard Adamson, Co-founder, Young Henrys*
- 3:20 **The business case for solar**
- Is solar a smart investment for your business?
  - Overview of decision making tools, financial investment options, project risks
- Ed Hanna, General Manager Corporate Solutions*
- 3:40 **Q&A**
- 4:00 **Close**



INNER WEST

EnergyAction



# Our Sustainability Journey

TOWARDS GREEN, NOT GREEN WASHING

# UNITED NATIONS SUSTAINABLE DEVELOPMENT GOALS



# UN GLOBAL COMPACT



- ▶ Corporate sustainability starts with a company's value system and a principles-based approach to doing business. This means operating in ways that, at a minimum, meet fundamental responsibilities in the areas of human rights, labour, environment and anti-corruption.
- ▶ Responsible businesses enact the same values and principles wherever they have a presence, and know that good practices in one area do not offset harm in another.
- ▶ By incorporating the Ten Principles of the UN Global Compact into strategies, policies and procedures, and establishing a culture of integrity, companies are not only upholding their basic responsibilities to people and planet, but also setting the stage for long-term success.

**PRINCIPLE 10**

Businesses should work against corruption in all its forms, including extortion and bribery

**PRINCIPLE 1**

Businesses should support and respect the protection of internationally proclaimed human rights, within the scope of their influence

**PRINCIPLE 9**

Businesses should encourage the development and diffusion of environmentally friendly technologies

**PRINCIPLE 2**

Businesses should make sure that they are not complicit in human rights abuses

**PRINCIPLE 8**

Businesses should undertake initiatives to promote greater environmental responsibility

**PRINCIPLE 3**

Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining

**PRINCIPLE 7**

Businesses should support a precautionary approach to environmental challenges

**PRINCIPLE 4**

Businesses should uphold the elimination of all forms of forced and compulsory labour

**PRINCIPLE 6**

Businesses should uphold the elimination of discrimination in respect of employment and occupation

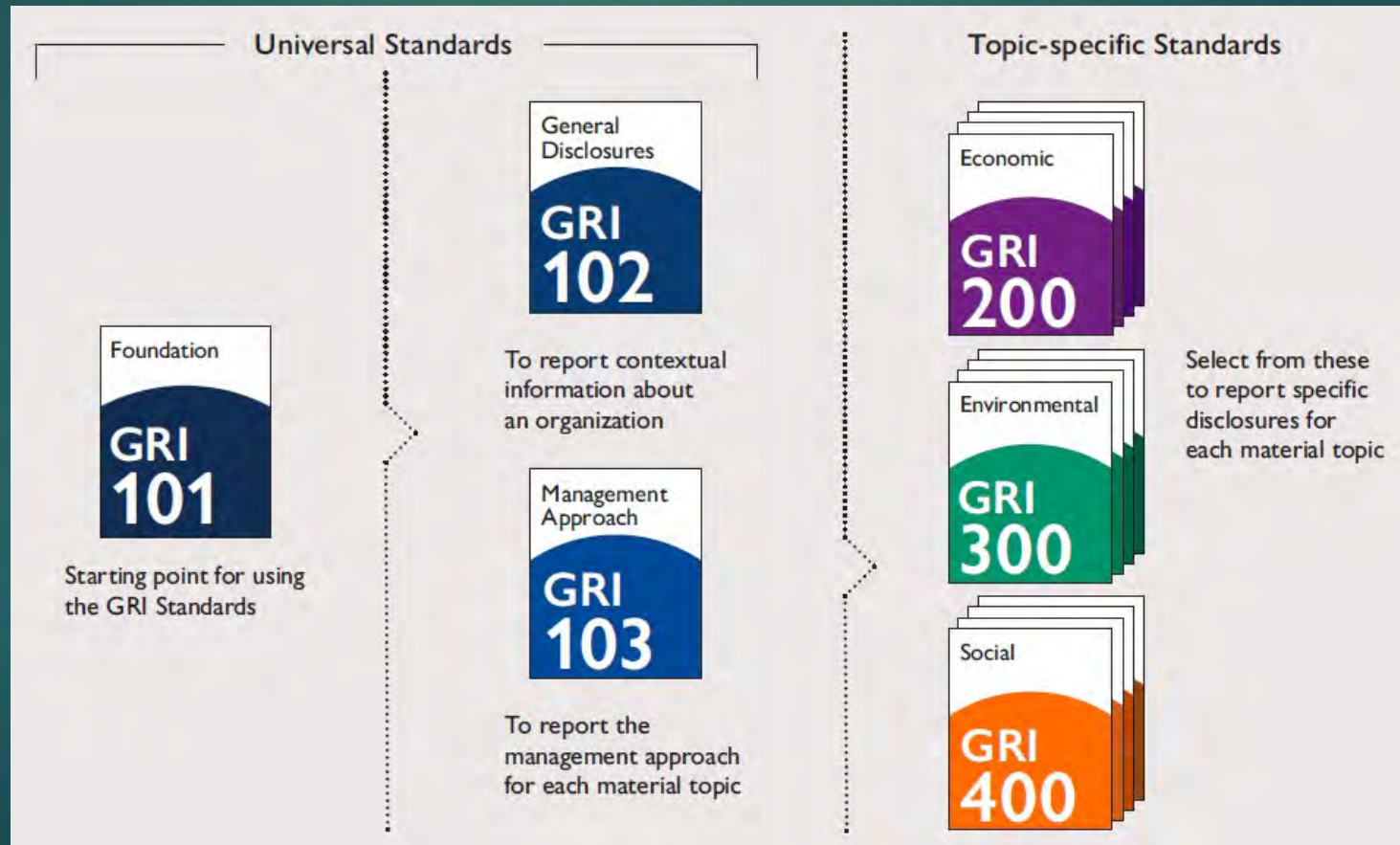
**PRINCIPLE 5**

Businesses should uphold the abolition of child labour



# GRI – GLOBAL REPORTING INITIATIVE

The Global Reporting Initiative is an international independent standards organization that helps businesses, governments and other organizations understand and communicate their impacts on issues such as climate change, human rights and corruption



# B Corp and GRI

	GRI Standards	B Impact Assessment
<b>Coverage</b>	Comprehensive (Organized as Organization's overview and Governance, and Social, Economic, Environmental topics)	Comprehensive (Organized as Governance, Workers, Community, Environment, Customers)
<b>Purpose</b>	Reporting on Material topics. Enhancing the global comparability, accessibility, and quality of information regarding the material topics and its impacts	Evaluation, Benchmarking, and Management of Issues Material to Stakeholders
<b>Customization</b>	Individual company led, based on Materiality Assessment	Prescribed, by relevance and materiality by size, sector, and geographic market
<b>Used By:</b>	All type and size of organizations globally: For-profit businesses, private or public, regardless of sector, location, and reporting experience	All type and size of organizations globally: For-profit businesses, private or public, regardless of sector, location, and sustainability management experience

- ▶ Certified B Corporations are businesses that meet the highest standards of verified social and environmental performance, public transparency, and legal accountability to balance profit and purpose. B Corps are accelerating a global culture shift to redefine success in business and build a more inclusive and sustainable economy.
- ▶ GRI is an open ended reporting framework for a Corporation reporting publicly on its most significant economic, environmental, and social impacts, and hence its contributions – positive or negative – towards the goal of sustainable development.



# Reporting Principles

- ▶ Completeness
- ▶ Accuracy
- ▶ Balance
- ▶ Clarity
- ▶ Comparability
- ▶ Reliability
- ▶ Timeliness



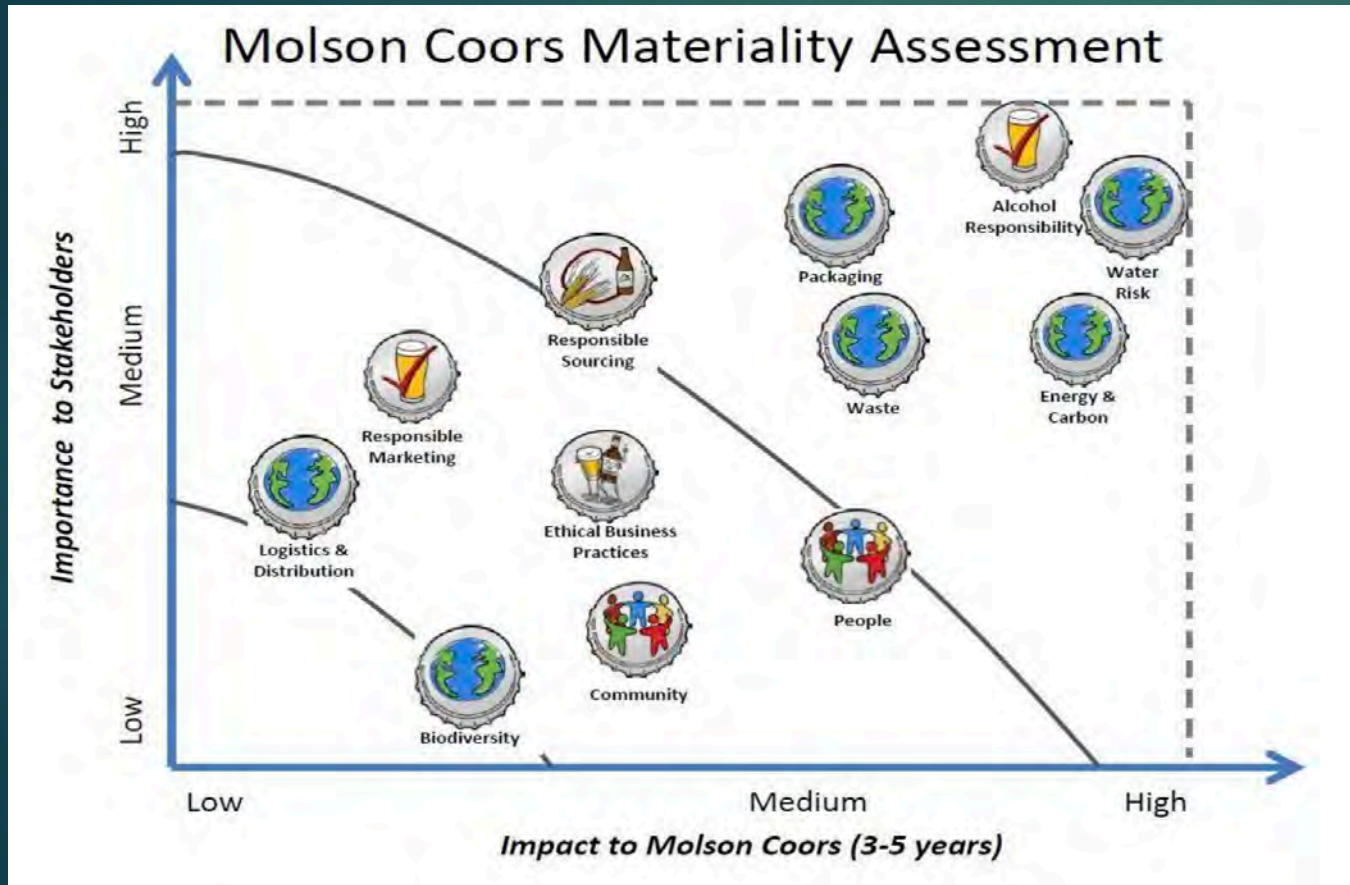
# Foundation: Stakeholder Engagement

- ▶ Aligns with UN's Sustainable Development Goals
- ▶ Identify Stakeholders
- ▶ Methods of engagement
- ▶ Transparency



Example: HPA 2021 Sustainability report

# Foundation: Materiality Assessment



- ▶ Corporate responsibility priorities
- ▶ Stakeholders input
- ▶ Economic, Environment, Social
- ▶ Axis – Importance to Stakeholders
- ▶ Axis – Significance of Impact
- ▶ The company doesn't need to have solved the problem but this sets targets

# Financial & Management Principles

- ▶ Measurement of financial performance
- ▶ Reporting and Transparency to relevant stakeholders
- ▶ Governance
- ▶ Payment of Taxes and Suppliers
- ▶ Codes of Conduct
- ▶ Privacy and Data Security
- ▶ Training and Development
- ▶ Diversity and Inclusion
- ▶ Community



# IBA Code Of Conduct

## INDUSTRY ASSOCIATION STAKEHOLDER

- ▶ Compliance with the Law
- ▶ Respect for Individuals and Groups
- ▶ Responsible Management of Hospitality, Festivals and Events
- ▶ Responsible Marketing



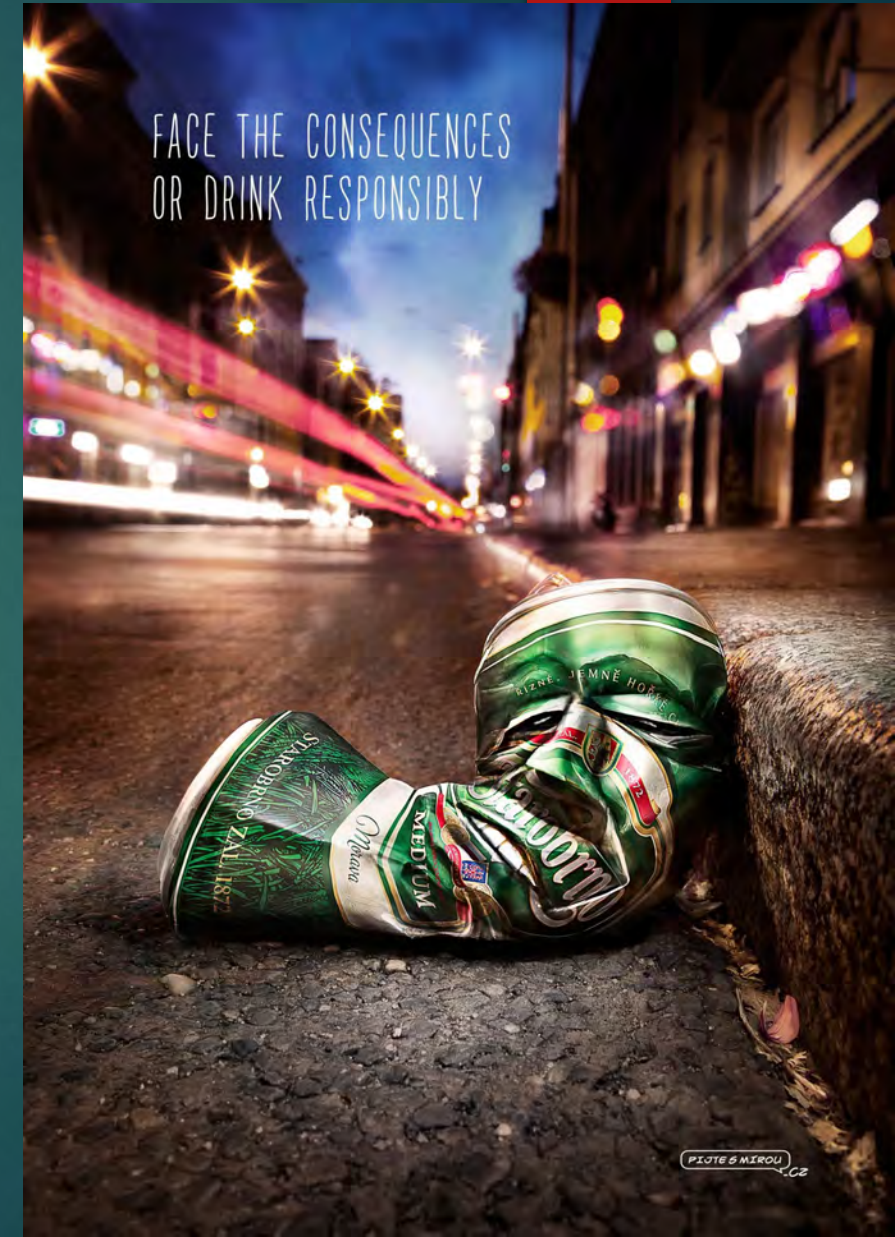
# Social Responsibilities

- ▶ Gender Diversity
- ▶ Gender Pay Gap
- ▶ Racial Diversity
- ▶ LGBTQ+ Inclusiveness
- ▶ Workplace Health, Safety and Wellbeing
- ▶ Community Support – Volunteer Hours and Investment



# Social Responsibility- Alcohol

- ▶ Truth in Labelling – ABV to Origin
- ▶ Responsible Consumption
- ▶ Minimise Harm
- ▶ No Appeal to Children
- ▶ Alcoholic Strength – Low and No Alcohol products available
- ▶ No Sexually Suggestive or Offensive names or images



# Sustainability Challenges

- ▶ Energy
  - ▶ Non-renewable sources
  - ▶ Inefficiency
- ▶ Agriculture
  - ▶ The production of the ingredients
  - ▶ The transportation of the ingredients
  - ▶ Inefficient use of ingredients
  - ▶ The disposal of the ingredients of the beer
- ▶ Packaging and Distribution
  - ▶ Production of packaging materials
  - ▶ Disposal of packaging materials
  - ▶ Transportation of beer and packaging materials
- ▶ Water
  - ▶ Source of water
  - ▶ Water consumption
  - ▶ Wastewater disposal
- ▶ CO2 Production
  - ▶ Mitigation and/or Reuse





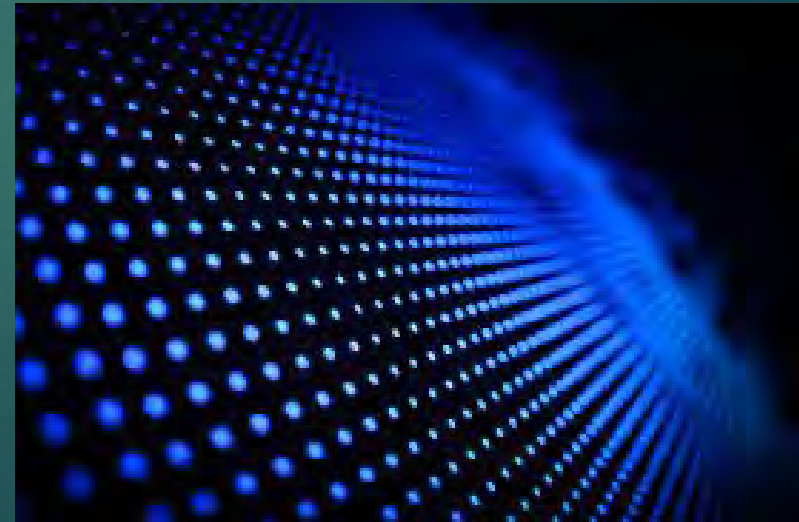
# Calculating Carbon Footprint

- ▶ The carbon footprint of a 6-pack of Fat Tire® Amber Ale (FT) is 3,188.8 grams of CO<sub>2</sub> equivalents (g CO<sub>2</sub>e).” To put that into perspective, an average adult tree will absorb 59.65 grams CO<sub>2</sub> per day. It would take a single tree 53.46 days – or almost two months – to offset the carbon emissions of a single six pack of beer.
- ▶ New Belgium estimates that the production and transportation of their glass bottles make up about 22% of the six pack’s total carbon footprint
- ▶ Glass bottles can be produced from virgin material, recycled material, or a mixture of both. The output from virgin inputs is around 724.5g of CO<sub>2</sub>e while the output from recycled inputs is as low as 362.2g of CO<sub>2</sub>e. Using a mixture of both recycled and virgin materials gives you a carbon output somewhere in between but the actual number depends on the mix. On average, the input would be 23% recycled but some manufacturers, such as the ones used by New Belgium, use a 10% recycled input.
- ▶ The rest of the non-consumable raw materials – paper, cardboard, steel, wood plastic, and adhesive – add up to around 163g CO<sub>2</sub>e, only a quarter of the output for glass bottle production and transportation.
- ▶ Emissions from the consumable materials of a 6 pack of beer add up to around 680g CO<sub>2</sub>e.
- ▶ A typical brewery their size that does not use renewable energy emits around 250g CO<sub>2</sub>e per 6 pack.
- ▶ Emissions due to Natural Gas amount to 123g CO<sub>2</sub>e per six pack.
- ▶ Transport - A local bottled beer from a local pub has a carbon footprint of 500g CO<sub>2</sub>e while an “extensively travelled” beer has nearly double that at 900g CO<sub>2</sub>e.
- ▶ New Belgium’s report estimates a total of 896.6g CO<sub>2</sub>e emitted from in-store retail practices.
- ▶ Disposal - While landfilling materials results in around 32g CO<sub>2</sub>e, recycling still produces 18g CO<sub>2</sub>e – roughly half.



# Energy

- ▶ Brewing in an energy intensive business
- ▶ Energy consumption in Australian is >38 percent of the production costs of beer
- ▶ Sources of energy – electricity and gas?
- ▶ Electricity generation onsite – solar, methane (from brewery waste)
- ▶ Renewable from grid



# Energy Efficiency

- ▶ Hot Water - storage and reuse
- ▶ Refrigeration
- ▶ Time of use
- ▶ Efficient equipment and power draw
- ▶ Processes
- ▶ Good practices make good business sense



# Community Solar

- ▶ Owned by community and leased by YH
- ▶ 25% of electricity generated onsite
- ▶ 6% return on investment
- ▶ Remainder sourced from 150Gw Solar Farm via grid
- ▶ Pingala has Two 2022 - Doubling capacity



# Packaging Materials

Energy consumption in manufacturing (size equivalent and weight relevant for standard one way)

Glass: 4124 mj / 1000 units

Aluminum: 3163 mj / 1000 units (23% less)

PET: 3416 mj / 1000 units (17% less)

\* Energy cost of mining Aluminum and Crude Oil (for PET production) potentially understated – see WA EPA 11/1990

GHG consumption (size equivalent and weight relevant for standard one way)

Glass: 487.7 lbs Co2

Aluminum: 429.4 lbs Co2 (12% less)

PET: 347.9 lbs Co2 (29% less)

\* GHG consumption of mining Aluminum and Crude Oil (for PET production) potentially understated – see WA EPA 11/1990

\* Source: Allied Development Corporation (plastics manufacturer – EU, 2009)

# Recycling

## Energy Saving of Recycling

- Glass – 74%
- Aluminum – 95%
- PET – 70%

\* Source: Packaging Council of Australia, 2005

## Recycling Rates

- Glass – 45%
- Aluminum – 67%
- PET – 21%

\* Source: Australian Packaging Covenant 2012 - 2013

*Did you know?*

## RECYCLING SAVES ENERGY

EVERY TIME A NEW PRODUCT IS MADE FROM RAW MATERIALS, LARGE AMOUNTS OF ENERGY ARE CONSUMED. RECYCLING PRODUCTS DECREASES THE AMOUNT OF ENERGY IT TAKES TO PRODUCE THESE ITEMS.

**WHY SHOULD WE CARE?**

Recycling uses LESS energy → so FEWER fossil fuels are burned → which REDUCES carbon dioxide in the atmosphere → and DECREASES greenhouse gases → which DECREASES global warming.

**95%**

Using recycled scraps to make aluminum cans uses 95 percent **less** energy than making cans from raw materials.

**75%**

It takes 75 percent **less** energy to make recycled steel than steel produced from raw materials.

ENERGY IS USED IN THE 4 STAGES OF PRODUCT DEVELOPMENT:

- EXTRACTION OF RAW MATERIALS
- MANUFACTURE OF RAW MATERIALS INTO PRODUCTS
- PRODUCT USE BY CONSUMERS
- PRODUCT DISPOSAL

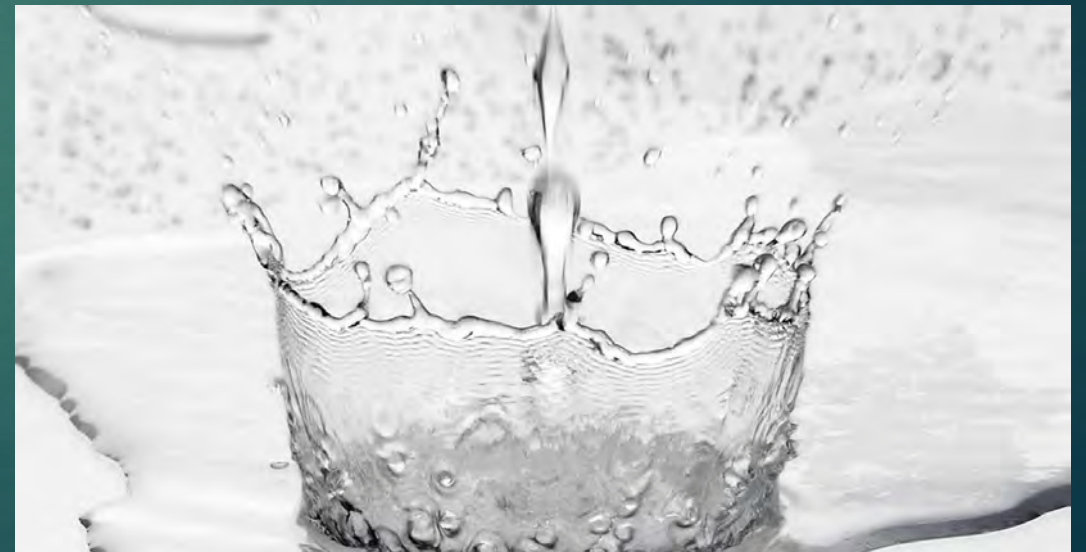
Energy plays a role in all 4 stages! Knock out one of these steps by recycling and you've saved energy.

**RECYCLEMORE**

For more recycling and energy-saving information, visit [www.recyclemorenc.org](http://www.recyclemorenc.org).

# Water

- ▶ Brewing is a water intensive process
- ▶ 5 to 6 litres of water per litre of beer
- ▶ Water efficiency an important goal
- ▶ CIP systems – water efficiency, chemical reuse



# High Efficiency Brewhouse (HEBS)

- ▶ Less water
- ▶ Less grain
- ▶ Less environmental impact
- ▶ High efficiency = more cost effective



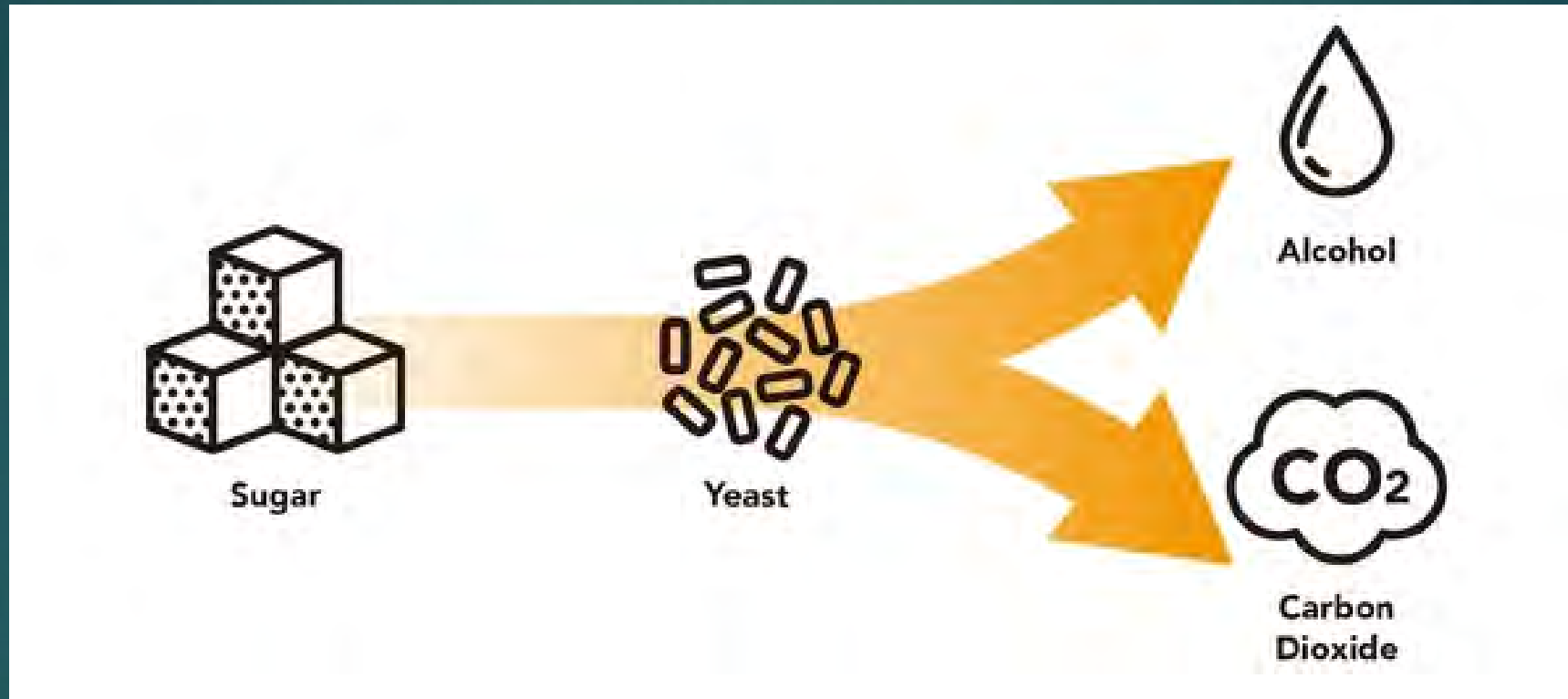


# Spent Grain

- ▶ Cattle Feed
- ▶ Sustained Farmers through the drought

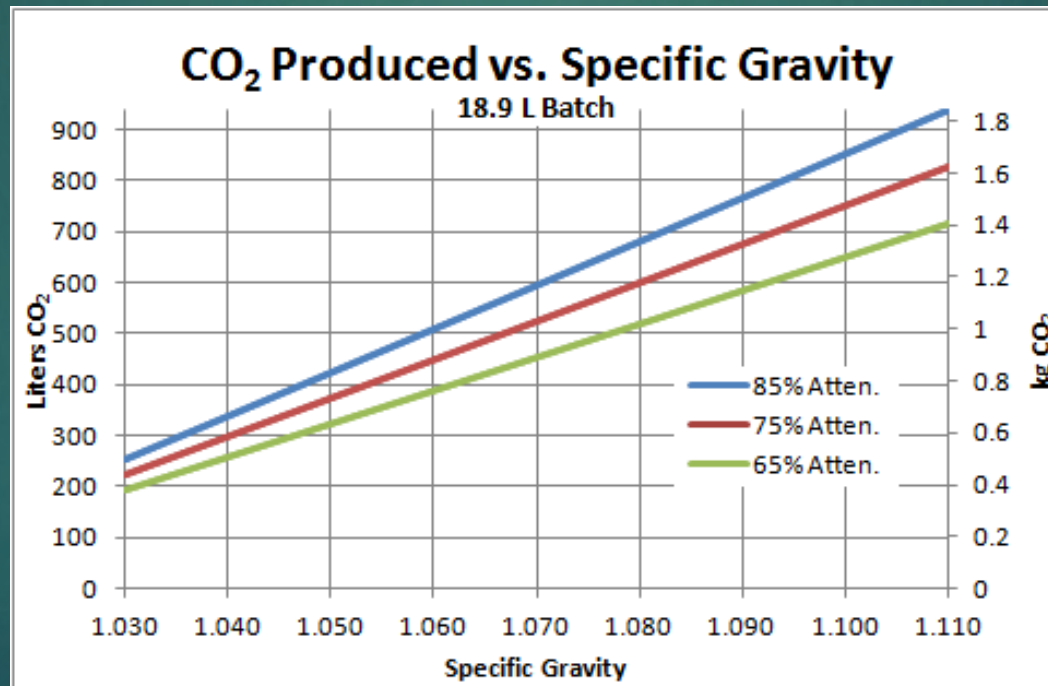


# Fermentation



# CO<sub>2</sub>

1 hL of produced beer creates 3.2 to 4 kg of CO<sub>2</sub>



# CO<sub>2</sub>

- ▶ CO<sub>2</sub> for brewery use cost ~\$1.4 per KG
- ▶ CO<sub>2</sub> can be captured and reused
- ▶ CO<sub>2</sub> for transfers can be passed from tank to tank using a filter
- ▶ Careful carbonation can reduce CO<sub>2</sub> usage
- ▶ Production cycle and production from fermentation hard to balance and CO<sub>2</sub> produced in excess of requirements



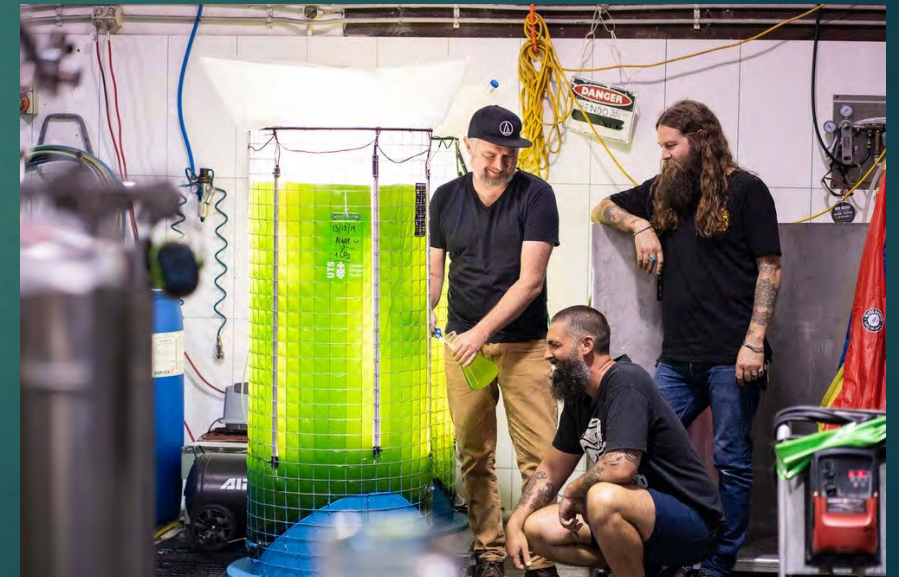
# CO2 Sequestering

- ▶ Algae uses CO2 to photosynthesize
- ▶ Produces Oxygen
- ▶ Algae can be use as:
  - ▶ Waste water treatment
  - ▶ Substrate for pharmaceuticals
  - ▶ Animal and Human feed



# YH & UTS C3

- ▶ 3 years into research project
- ▶ Micro algae can survive in brewery conditions
- ▶ Strains can be high concentration CO2 tolerant and thrive
- ▶ 1 m2 of space can produce the same oxygen and as 1 hectare of Australian Bush
- ▶ Further research into use of Algae grown in brewery

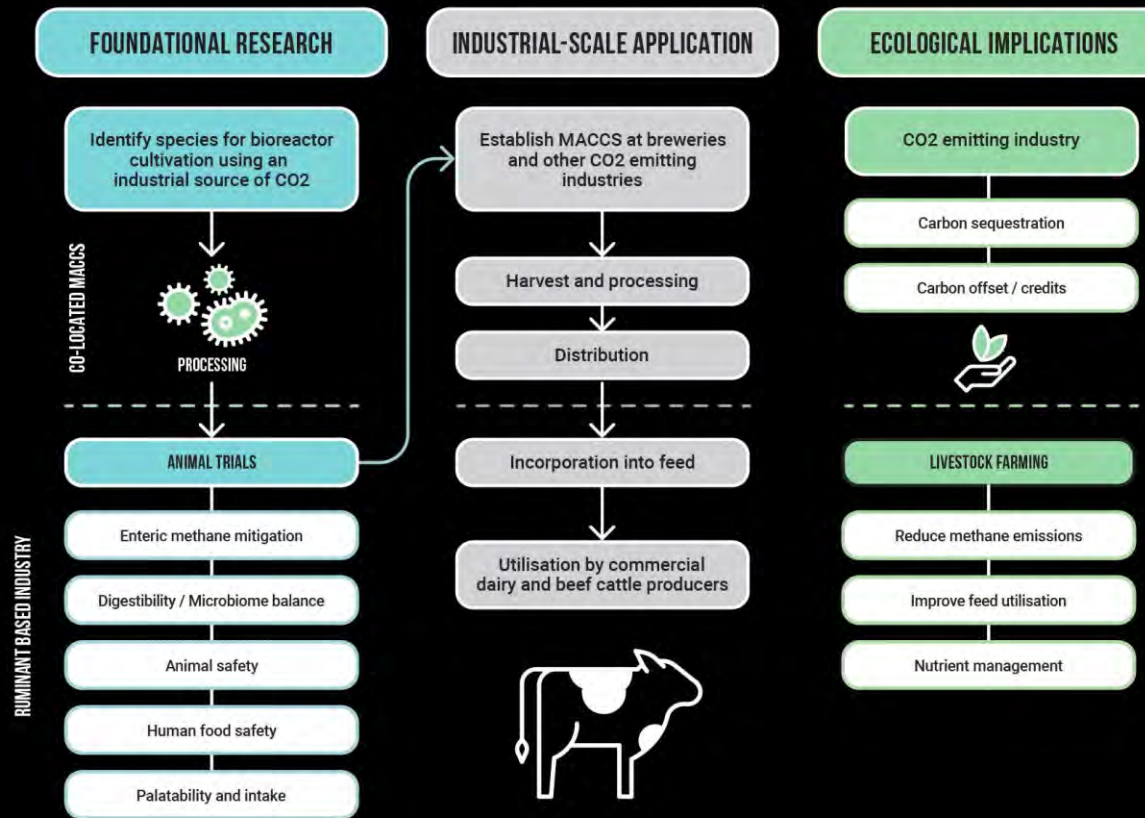


# Bio-Prospecting



# Current Research – Cattle Feed

## MACCS - MICROALGAE CARBON CAPTURE SYSTEM





## About Energy Action

**Our vision: To build a world-renowned Net Zero marketplace and energy management platform to make energy, easier, cleaner and lower cost**

### ▶ Why this is important

The status quo is no longer acceptable. Our mission is to make energy, easier, cleaner, and cost less.

### ▶ How this benefits customers

It reduces their energy spend and provides them with a clear pathway to Net Zero.

## What sets Energy Action apart?



### Our expertise

A national team able to identify better ways of buying, generating and managing energy



### Our leadership

The buying power as market leader to fight for a better deal with independent comparison.



### Our technology

Developed from client and industry insights, translates market complexity and reduces energy spend.



### Leading Net Zero

Through innovation make “green energy” options simple and lower cost

# Why solar?

## What are the core and secondary benefits to your business?

A solar array represents:

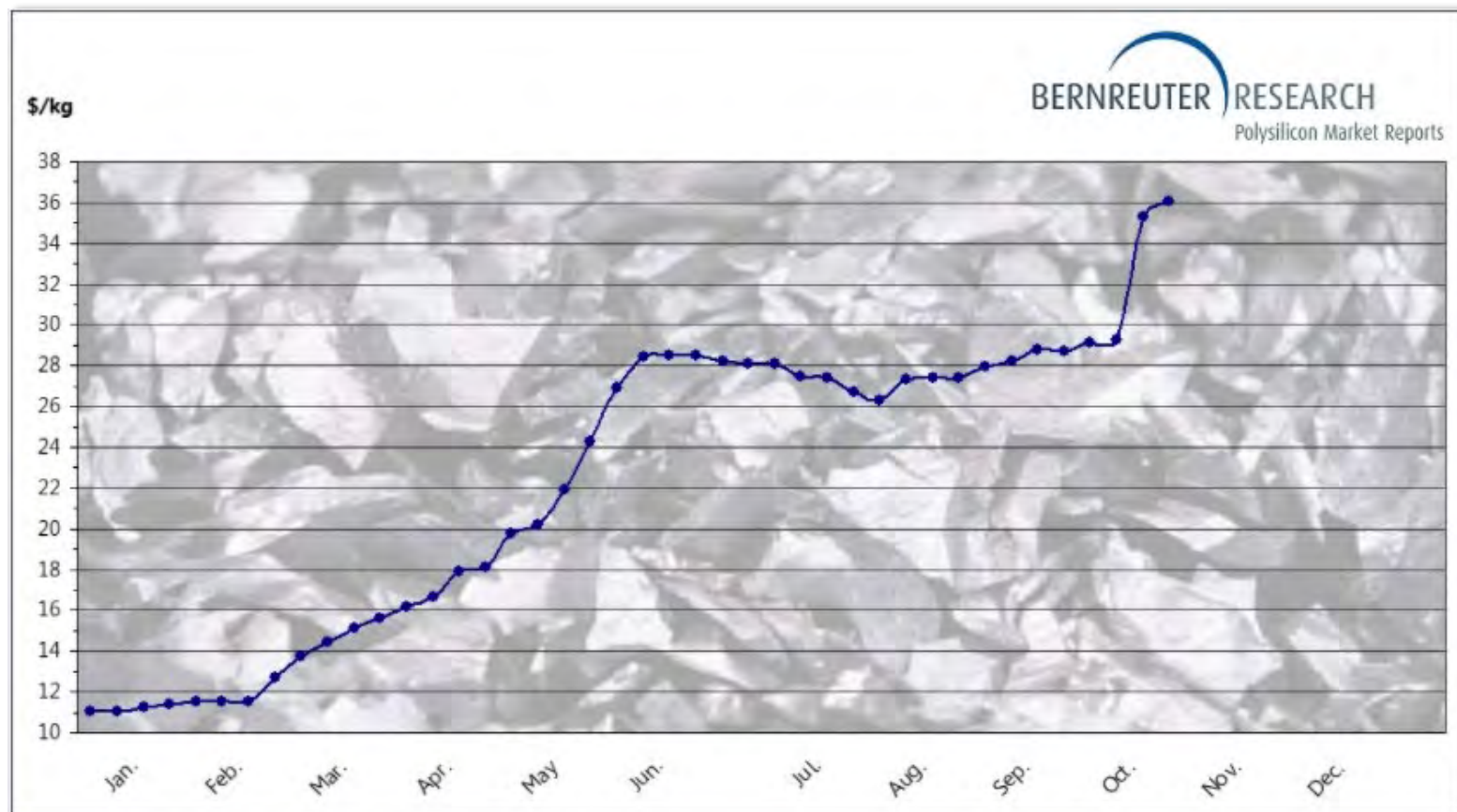
- 1. Reduced energy costs**
- 2. A stepping stone on the path towards net zero –**  
Reduction of scope 2 carbon emissions
- 3. Energy independence builds a virtuous cycle**
  - new revenue opportunities:
    - EV charging
    - Microgrids – export and import arbitrage
- 4. Stakeholder and community engagement**
  - Tangible community support statement (local environmental action)
  - Community finance



# Why solar now?

Is there a sense of urgency to act now? We would argue **yes**

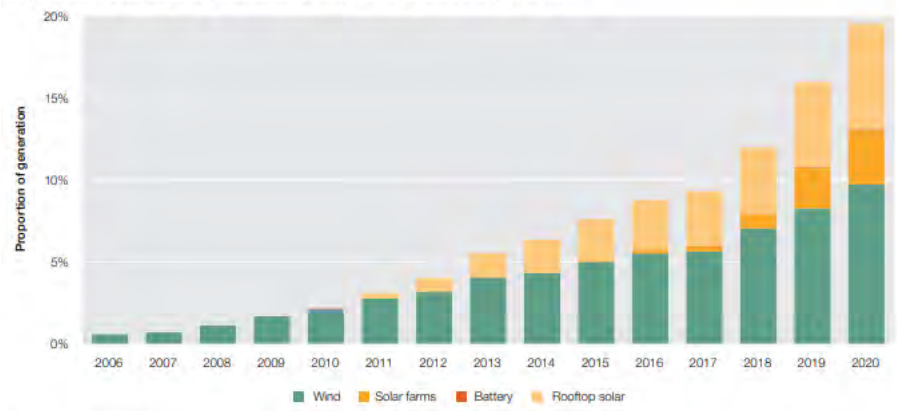
- ▶ Costs of solar are rising
- ▶ Backdrop: Energy shortages through Asia and Europe;
- ▶ Delayed decision-making costs you: every electricity bill you pay is paid out of the pool of money that could be supporting your investment in solar);
- ▶ 15<sup>th</sup> November is the deadline for your free solar assessment from Inner West Council and Energy Action



# Solar is becoming a dominant energy generation tech in Australia:

- The Australian energy market is undergoing a profound shift in generation source:
- Currently, 27% of generation output is sourced from renewable energy assets;
- According to the AER, over the next 2 decades, 26–50GW of new large scale wind and solar capacity is forecast to come online, along with 13–24 GW of rooftop solar PV capacity;
- The chart on the right demonstrates the significant investment proposed to expand this resource;

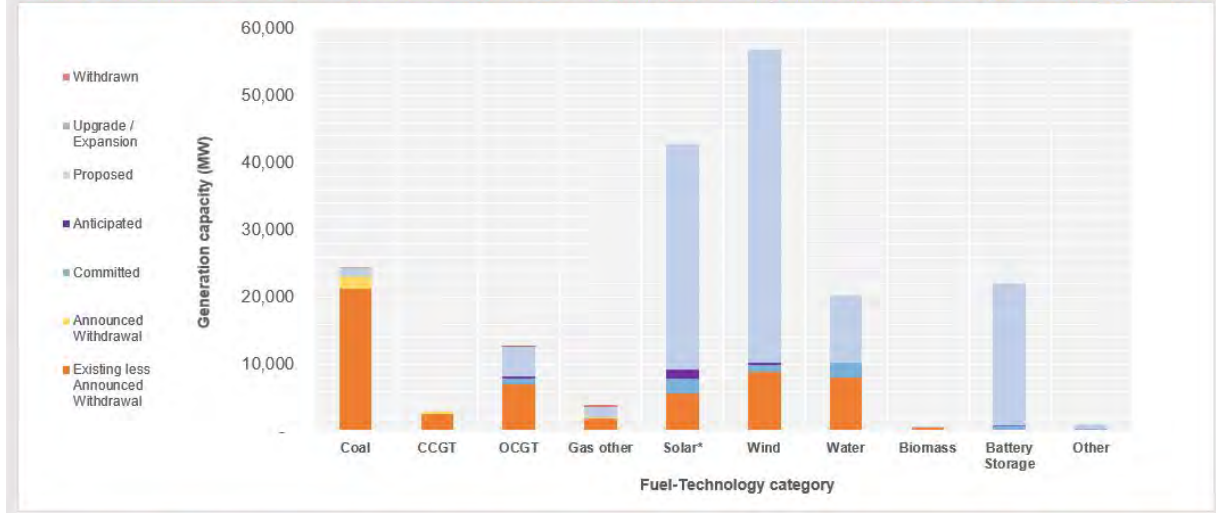
Figure 1.7 Renewable generation in the National Electricity Market



Source: AER; AEMO (data).

Region: NEM  
 Dispatch Type: S, SS & NS

Summary Chart: NEM Scheduled, Semi-scheduled & Non-scheduled Generation (MW) - Existing and New Developments by Fuel-Technology Category



Summary Table: NEM Scheduled, Semi-scheduled & Non-scheduled Generation (MW) - Existing and New Developments by Fuel-Technology Category

Summary Status	Fuel - Technology Category										Total
	Coal	CCGT	OCGT	Gas other	Solar*	Wind	Water	Biomass	Battery Storage	Other	
Existing	23,201	2,985	7,013	2,170	5,730	8,815	7,992	617	261	202	58,986
Announced Withdrawal	2,000	388	-	240	-	-	-	-	-	-	2,628
Existing less Announced Withdrawal	21,201	2,597	7,013	1,930	5,730	8,815	7,992	617	261	202	56,358
Upgrade / Expansion	90	-	15	-	-	-	-	-	-	-	105
Committed	-	-	904	-	2,087	1,101	2,290	-	489	24	6,895
Anticipated	-	-	316	-	1,489	368	-	-	18	-	2,191
Proposed	1,141	-	4,433	1,532	33,459	46,517	9,936	41	21,263	887	119,210
Withdrawn	-	-	34	240	-	-	-	-	-	-	274

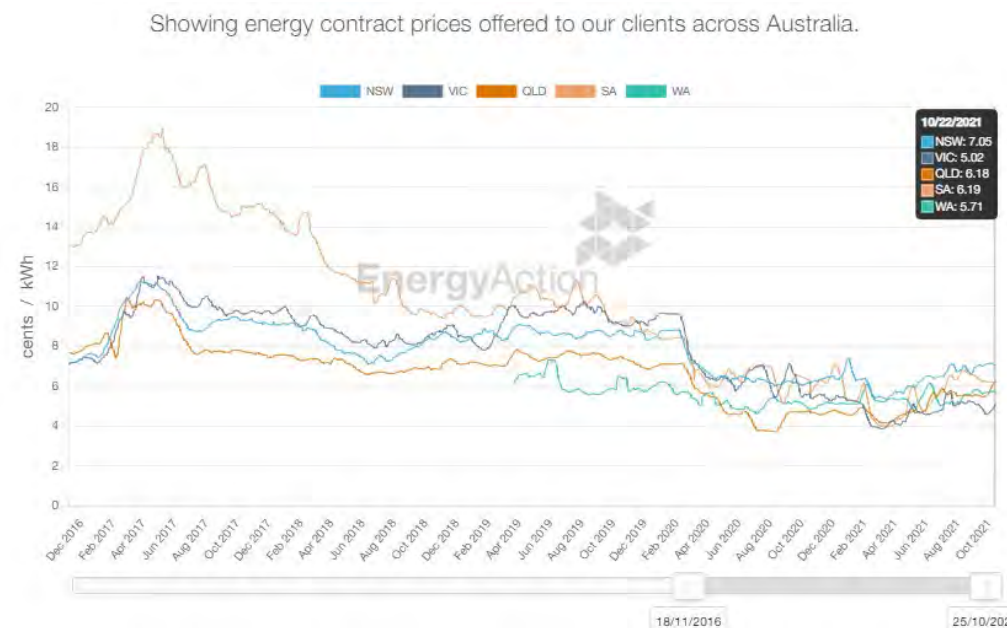
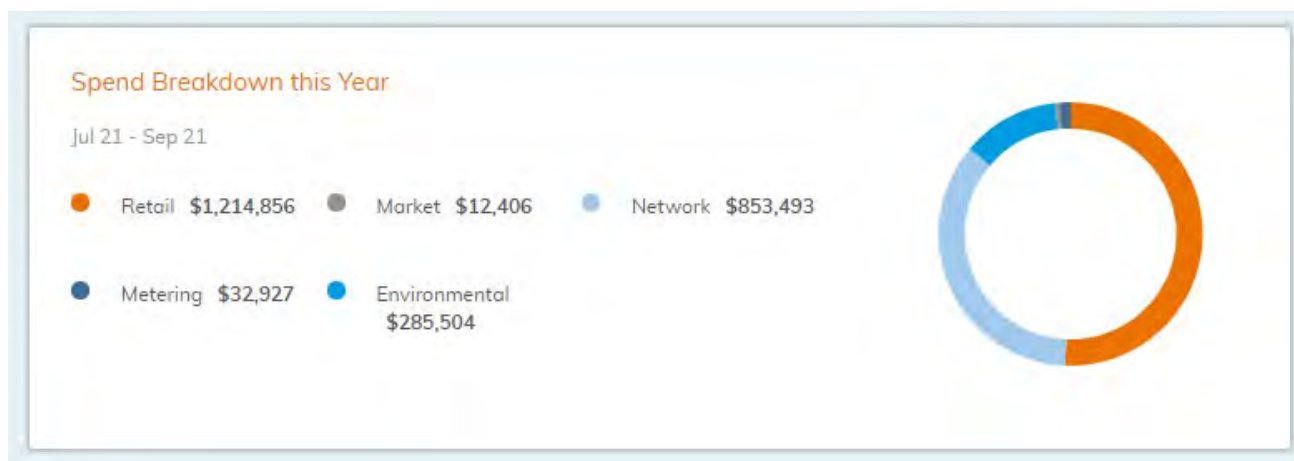
**Notes:**  
 "Existing" summary status includes "Announced Withdrawal".  
 "Committed" summary status includes "Committed".  
 "Solar\*" Fuel-Technology category excludes Rooftop PV installations.  
 Projects with "TBA" Dispatch Type are not included in the Summary Table.  
 Projects with "Confidential" FuelBucketSummary are not included in the Summary Table.

# The financial metrics

What drives ROI?

# How solar impacts your electricity bill

Solar can make impact your energy bill of anywhere between 60 – 70%



The Energy Action Price Index (EAPI) tracks electricity prices for business customers in the National Electricity Market (NEM) and South West Interconnected System of Western Australia (SWIS). EAPI data is sourced from Energy Action's reverse auction platform. The EAPI data is based on commodity electricity prices in Standard Retail Contracts.


Refer: <https://energyaction.com.au/>

# Paybacks for CAPEX

## Typical ROI medium sites

Best Payback



20 kW Solar



● Grid ● Solar


ANNUAL SAVINGS \$3,827

PAYBACK 5.0 years

BREAKDOWN  

Largest System



64 kW Solar



● Grid ● Solar


ANNUAL SAVINGS \$10,448

PAYBACK 5.4 years

BREAKDOWN  

Custom Size



40 kW Solar



● Grid ● Solar

ANNUAL SAVINGS \$7,039


PAYBACK 5.2 years

BREAKDOWN  

## Typical ROI for large sites

Best Payback



99 kW Solar



● Grid ● Solar


ANNUAL SAVINGS \$18,730

PAYBACK 4.6 years

BREAKDOWN  

Best Payback > 100 kW



300 kW Solar



● Grid ● Solar


ANNUAL SAVINGS \$56,748

PAYBACK 7.2 years

BREAKDOWN  

Largest System



1,200 kW Solar



● Grid ● Solar

ANNUAL SAVINGS \$210,056

PAYBACK 7.3 years

BREAKDOWN  

# Getting the recommendations right

So you can make a decision today



# Rightsizing your investment

► **Tip 1 avoid oversizing: bigger is not always better**

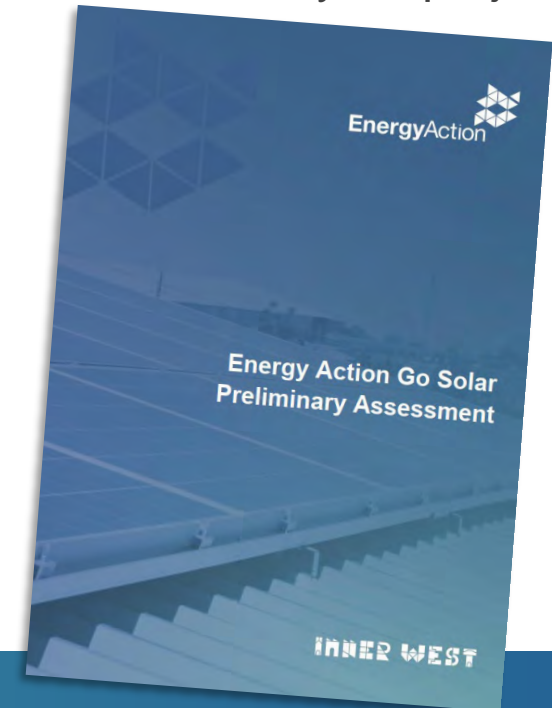
- Any excess/exported solar is worth less than solar that you use – excess solar reduces returns
- **Market rule change: Networks will be able to impose a c/KWh charge on Solar exports. For existing arrays, there are protections to 2025. For new systems, it may be sooner.**

► **Tip 2 there are sweet spots:**

- Solar systems smaller than 100 kW per NMI receive the STC rebate - reducing the cost by 30-40%
- Solar systems smaller than 40 kW require less network connection effort - reducing costs and delays
- Solar 'sweet spots':
  - 99 kW or 39 kW
  - Excess/exported electricity <30%

► **Tip 3 there are independent firms that can assist to get the sizing right.**

- INNER WEST Go Solar: a great tool to build confidence in your project



27 October 2021

# Blackfont Brewhouse Marrickville

## Solar assessment for business Round 1 participant 2020

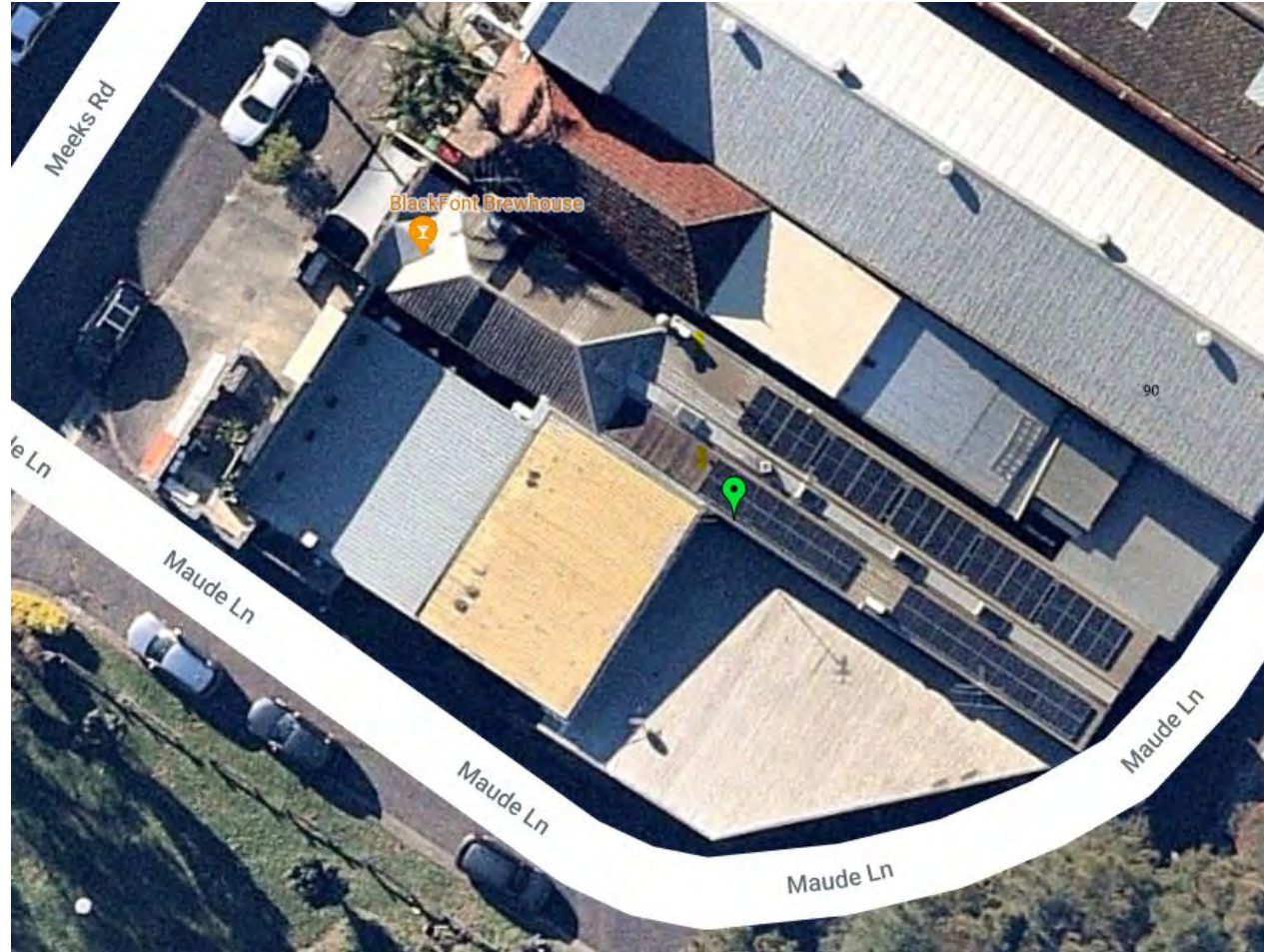
*Owner Michael was interested in solar to reduce operating costs from ramping up of brewing operations from part time to full time*

*Installed 13.3kW system May 2021 with micro-inverter to minimise shading impact of front of property extension*

*Designed for low export –under 10%*

*All electric equipment for water heating, refrigeration, cool rooms*

*Cash purchase with simple payback approx 5 years*

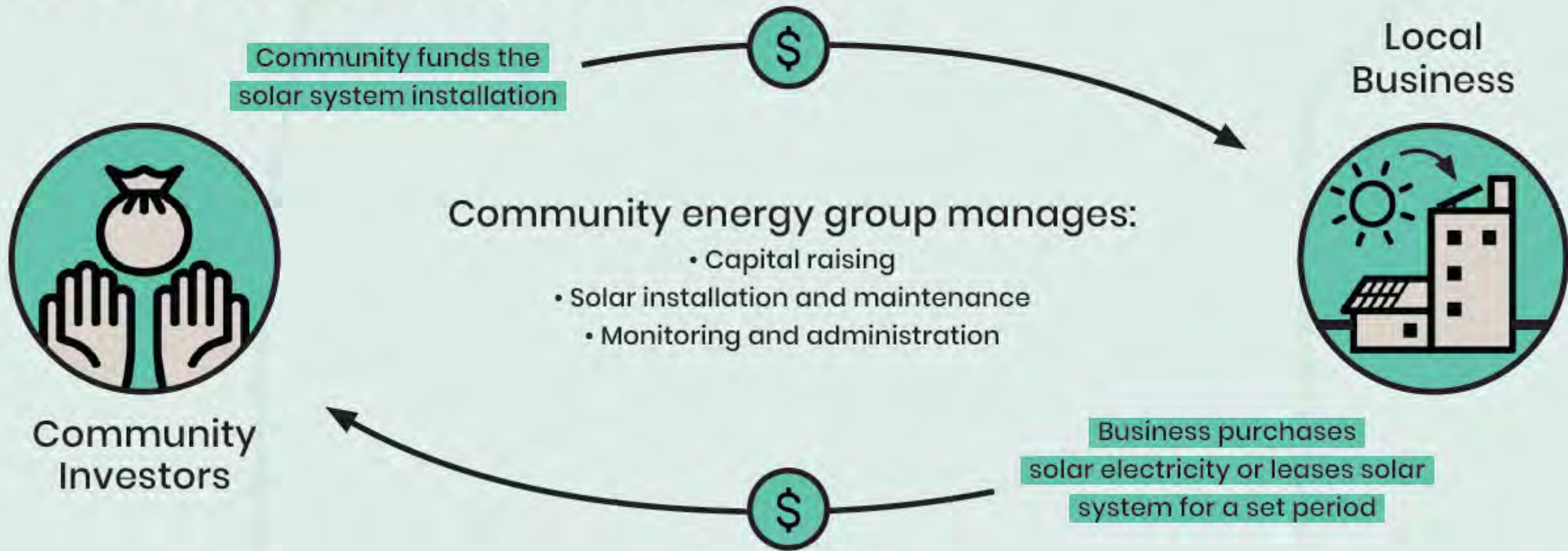


# Investment and financing options

Outright Purchase (on your own balance sheet)	Power Purchase Agreement (on someone else's balance sheet)	Equipment rental	Other options
<ul style="list-style-type: none"> <li>▶ Simple return on investment model: what are the energy costs avoided</li> <li>▶ Cashflow: Typical payment 30% deposit, 40% on delivery, 30% on completion</li> <li>▶ Potential instant asset tax write-off (consult your accountant)</li> </ul>	<ul style="list-style-type: none"> <li>▶ No upfront investment - pay for electricity generated by solar system</li> <li>▶ Cashflow: pay for output over 5, 7, 10, 15 year or more terms</li> <li>▶ Supplier incentivised to ensure system is performing (no kWh no payment)</li> </ul>	<ul style="list-style-type: none"> <li>▶ Rent solar system for annual fee plus small install fee</li> <li>▶ System can be removed with break fee and no damage to roof</li> <li>▶ Grant for tenanted/leased sites</li> </ul>	<ul style="list-style-type: none"> <li>▶ Finance / lease – typically 5+5 years with potential tax benefits</li> <li>▶ Landlord funded– Landlord pays for solar system outright and increases rent proportionally</li> <li>▶ Community funded solar</li> </ul>

# How does community solar work?

## How community solar works



# Effective Project Management

Making sure you get what you  
expect

# Getting the scope right

After sizing, success comes down to the scope of works: What's included in the cost is what counts.

Example of what should be included in a professional scope:

Inclusion/Exclusion	Standard supplier proposal	Best practice	Impact on project
<b>Local Government Building approval</b>	Excluded	Included	Up to additional ~\$1,500
<b>Inverter housing</b>	Excluded	Included	Up to additional \$2,500
<b>Monitoring</b>	Solar monitoring only (using inverter)	Solar + grid monitoring	Up to \$1,000 for Grid monitoring.
<b>Defect liability clause</b>	Not included	5% retention at 12 months	Up to \$5,000 retained to ensure issues are resolved
<b>Performance guarantee</b>	Not included	5 years at 90% output	Lost savings if not performing
<b>Installation schedule</b>	Not included	8 week delivery commitment	Up to \$3,000 of STCs, delayed savings

# Project risks and how to overcome them

## ▶ Contract – getting what you paid for

- Standardised project brief with inclusions/exclusions
- Performance guarantee of 90% of output P/A

## ▶ Quality of products and installation

- Supplier ratings – good quality and more likely to be around in 10+ years
- Defect liability clause with retention of % project cost
- Installation warranty of 5+ years
- Product warranties for solar panels and inverter from trusted manufacturers

# The tools you need to deliver your project

The Energy Action solar project  
method



# Step 1: The Assessment: proving the solution



## ► What we do

Our software finds the system that best suits your needs, taking in to account data the information you've provided and from satellite imagery to find a system that suits your site based on a selection of hundreds of systems

## ► What you get

A detailed, yet easy to read report via a cloud based platform containing extremely accurate projections of costs and the benefits of each different solar system that would suit your site, right down to the hour. This is an intuitive process to help you find the system that best suits your needs

## Step 2: Gathering initial offers

### ► What we do

A comprehensive brief is created based on your selected preferences and we invite our registered suppliers to submit an initial offer for carrying out the project.

Once received, we evaluate the initial offers and create a shortlist of some of the best suited suppliers

### ► What you get

Compare apples with apples using a detailed evaluation of the initial offers, available via our platform to help you clearly understand what is being offered, and who is offering the solution that works best for you.

Once you have reviewed these initial offers, you have the opportunity to either accept offers immediately, or shortlist suppliers to give you a final offer

## Step 3: Project checks and approvals

- ▶ Before proceeding to **final offers**, the logistical checks and approvals are coordinated to ensure your project can go ahead



Structural Roof Assessment



Local Government Approval



Electrical Assessment



Grid connection application

These tasks are done through our expert partners with the costs of these tasks passed through to the successful supplier.

## Step 4: Final Offers

### ► What we do

You choose between a “best and final offers” round or a reverse auction for suppliers to contract your system.

We host shortlisted suppliers at your site for an inspection and run a detailed final offers qualification to score suppliers on the important details in their solution

### ► What you get

A contract as an outright purchase, power purchase agreement (PPA), finance or lease.

The best value for your system with the perfect balance of quality and price after the finest suppliers in the industry compete to win your project

# Energy Action Reverse Auctions

to prove up your solution

drive down margin

and

match you to the right supplier

1. Assessment	Traditional Methods	Energy Action
Number of solar/battery business cases modelled	1	> 100
Results and recommendations	Static PDF report	Dynamic Online Platform
Time to complete assessment	Weeks	Seconds
Accuracy of capital cost	Estimate	Guaranteed
Typical cost of service - \$	Thousands of dollars	Much less – get started

2. Initial offers	Traditional	Energy Action
Participating suppliers	Arbitrary	Pre-registered and qualified
Project brief	Limited – supplier decides what's best	Detailed – choose what you want
Evaluation of offers	Slow, painful, subjective, opaque, desktop and a shambles	Fast, objective and transparent
Outcome	Offer acceptance only	Accept or get final offers

3. Final offers	Traditional	Energy Action
Supplier site inspection	Optional	Mandatory
Process	RFP only – only be price submitted	Online process for multiple bids
Supplier selection	Price and subjective criteria	Reverse Auction
Contract negotiation	Additional time and money	Integrated into process

# Step 5: Contract Management

## ▶ Leave it to the experts!

After contracting your system, we ensure it is delivered on time and to specification, reducing the need for your staff to project manage.

These services are facilitated to ensure your project is delivered on time and to your satisfaction.



Measurement and Verification



Monitoring











Project Management






Owner's Engineer

## Step 6: Owners Engineer Services

-  Review detailed design works submitted by the supplier, including any deviations in design
-  Review and provide advice around deviations from the Supplier's Event submission
-  Set the schedule with you on milestones and key QA points
-  Provide interface between your safety management system and the Supplier. Provide weekly updates on progress to you
-  Inspections of suppliers work at random, build a defect register and confirm rectifications based on inspections
-  Schedule regular meetings between supplier and site representative to map weekly progress forecasts
-  Review handover documents (including defects register)
-  Facilitate dispute resolution during defects period

# Step 7: Monitoring and Measurement & Verification

-  Establish the benchmark for system performance
-  Monitor system for 12 months and identify when the system is deviating from benchmark performance
-  Coordinate Supplier and on-site staff to facilitate safe and fast rectification works





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