



An Australian Government Initiative



WIDE BAY BURNETT



RENEWABLE ENERGY IMPACT AND READINESS PROPOSAL

November 2024

QUEENSLAND'S RENEWABLES: A SNAPSHOT¹



31%

Queensland generates 31% of Australia's emissions.



100%

Target commitment: 163.5Mt emissions reduction.
(30% reduction by 2030 and 100% reduction by 2050)



60% - 90%

Renewable investment will be spread across Queensland's regions.



23.46%

16.2GW
Installed capacity of electricity generation.
3.8GW
Constitutes as renewables (approx).



5000%

Modelling suggests an additional 105GW and 192GW of installed renewables is required by 2050 to meet demand¹.

¹ Source: Renewables | CSQ

² Source: Power plants map of Queensland (epw.qld.gov.au)

Queensland²

Wide Bay

Current electricity generation and storage, by source:



fossil fuel (coal/gas)

68%

12191MW

82%

1850MW



renewable energy

31%

5579MW

17%

379MW



battery storage

2%

282MW

1%

16MW

PROJECT PIPELINE & INVESTMENT

There are 23 proposed renewable energy facilities located in Wide Bay Burnett, with a potential generation capacity of 7915MW. Each project is at different stages of feasibility and approvals³.

Two projects are currently under construction (Kingaroy Solar Farm and Southern REZ Battery), which will generate a further 340MW.

Wide Bay Burnett's current pipeline of proposed renewable energy projects includes:



Onshore wind farms (4)
1923MW generation capacity



Solar farms (12)
1467MW generation capacity



Battery storage (5)
525MW storage capacity



Pumped Hydro (2)
(Pumped Hydroelectric Energy Storage, or PHES)
4000MW storage capacity

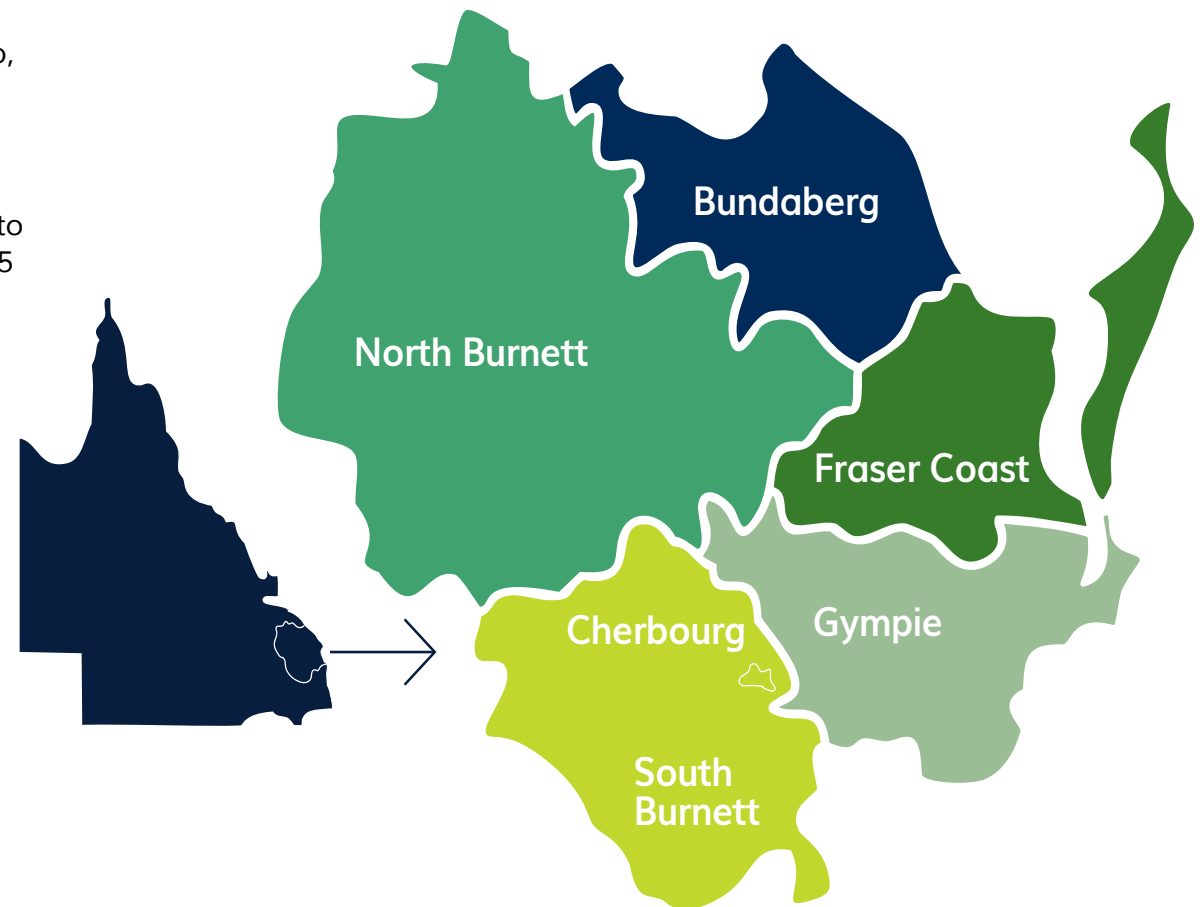
³ Source: Power plants map of Queensland (epw.qld.gov.au)

INTRODUCTION

BACKGROUND

Wide Bay Burnett is located in one of three Renewable Energy Zones in Queensland, and is the focus of a series of major renewable energy projects including Borumba Pumped Hydro, Tarong West Wind Farm, Woolooga Solar Farm.

The region is attracting growing investment interest in large scale solar, onshore wind, hydrogen and battery projects, underpinned by the Queensland Government's commitment to reach carbon emissions reduction targets of 75% (below 2005 levels) by 2035, and net zero by 2050⁴.



POLICY CONTEXT

Three Renewable Energy Zones (REZ) have been established in Queensland – Southern REZ, Central Queensland REZ and North and Far North REZ. These regions have been strategically selected to coordinate the development of multiple clean energy generators, using shared infrastructure to reduce costs and take advantage of economies of scale⁵.

Wide Bay Burnett is located in Southern Queensland's REZ and has been identified as a "manufacturing and renewable energy powerhouse in the next 25 years" as part of the Queensland Government's Wide Bay Burnett Regional Plan 2023⁶. This plan articulates the Queensland Government's commitment to infrastructure energy planning for regionally significant industrial land and new residential development in Wide Bay Burnett.

The region enjoys natural advantages such as wind and solar and continues to attract new investment interest in these projects.

EARLY INSIGHTS

Net Zero is one of the most significant policy agendas facing regional Australia. Multiple reports confirm that some regional communities are better positioned for the clean energy transition than others, with varied levels of industry and business readiness.

Regional Development Australia Wide Bay Burnett (RDWBB) has conducted preliminary engagement to assess industry sentiments regarding the clean energy transition. Early insights include the following:

Mixed readiness:

- Some industries and businesses in the region appear to be prepared and optimistic about the transition to clean energy, while others express concern about future reliability of base load energy,

readily available and cost-effective technologies and potential business disruptions as a result of net zero.

- Cost savings are a key driver for the adoption of renewable energy, with varied levels of technology adoption. Solar energy is the predominant application being used.
- A strong desire by businesses to implement suitable off grid and behind the meter energy generation solutions.
- Concerns exist about the unknown administrative burden of mandatory climate-related financial disclosure reporting on small to medium-sized businesses.

Concerns over economic impact:

- Apprehension about energy reliability and its impact on productivity, particularly in industries heavily reliant on fossil fuels.
- Concerns about rising energy and utility costs, operational risks, and potential impacts on productivity.
- Concerns about the coexistence of renewable energy projects on premium agricultural land, including potential biosecurity risks, on farm safety, visual and noise amenities, and devaluing of property markets.

A need for genuine industry engagement and clearer policy guidance

- Clearer information about the impact of the clean energy transition—specifically regarding costs, benefits, and return on investment—is needed from Government to guide investment decision-making in the region.
- There is a strong desire among businesses to design and implement bespoke energy generation and storage solutions (behind the meter) tailored to their individual needs, with some support from Government.
- Conflicting data from reliable sources.
- **Industry's voice is missing at the decision-making table.**

⁵ Source: Southern Queensland renewable energy zones | Department of Energy and Climate

⁶ Source: Renewable energy in Wide Bay Burnett | Department of Energy and Climate



Electricity costs are rising sharply and to the point where it impacts on decision making

Every country in the world that's adopted renewables as an energy source has seen massive electricity price increases, with the more renewables in any system the higher the cost of electricity and the less reliable the electricity is

If there were battery subsidies I would install batteries

Installing solar has been positive for our business

Massive savings to be had but more education of the masses is needed

We require a constant reliable supply of electricity

We don't use huge amounts of energy in our business. However, the need for reliable, cost-effective electricity is paramount to the success of our industry.

Biogas needs to be higher up on the agenda for a renewable energy source

Governments (need to) get out of the way of industry and allow the free market to innovate, flourish, expand and compete

Benefit cost analysis and return on investment information is not readily available

More clarity about purpose, benefits and ROI of renewables is needed

Need to store excess solar energy but batteries too expensive, fire risk of lithium ion batteries. Not being paid fair price for putting solar energy into the grid



“Sensible policies to enable further investment in renewable energy”

PROPOSED PROJECT

For most of the past 50 years, industry in Wide Bay has benefited from reliable, sustainable, and cost-effective power available 24/7/365, which has enabled our industries to compete globally. However, in the last decade, escalating electricity costs, well above inflation, have emerged.

This increase, coupled with uncertainty about the reliability and cost of clean energy, is impacting industries and businesses and potentially deterring investment.

The economic impacts of the clean energy transition on industries and businesses are not yet fully understood, and understanding these impacts is essential. RDAWBB is proposing to undertake a detailed analysis into the economic impacts of clean energy transition in Wide Bay Burnett to identify which industries will be most affected and outline the short-, medium-, and long-term opportunities arising during and after the clean energy transition.

“We love being off grid and have had zero negative experiences”

PROPOSED PROJECT *continued...*

This project will be essential to understanding and addressing the most challenging aspects of the clean energy transition for industry and business in the region. The key focus areas include:

Analysis of Current Energy Generation:

Scope: Comprehensive analysis of the region's current energy generation landscape (both fossil fuel and renewable) and renewable energy projects that have already commenced or planned for the future.

Objective: To provide a clear understanding of the region's energy mix and the trajectory of energy generation and investment in the region.

Cumulative Impacts of Renewable Deployment on Industry:

Scope: A focus on the broader implications of deploying renewable energy, including supply reliability, cost impacts, investment considerations, risk factors, and land use.

Objective: To understand the challenges and opportunities that renewable energy presents for different industries and how they might influence regional economic stability and growth.

Energy Use and Demand Across Industry Sectors:

Scope: Energy consumption patterns across various industry sectors, including both residential and industrial usage.

Objective: To assess the demand and usage trends to identify areas where clean energy can be most effectively implemented or risk of energy supply for high energy users.

Capital Investment Requirements and ROI:

Scope: Assess the capital investment needed to implement renewable energy solutions in the region and analyse the potential regional economic and investment impact.

Objective: To provide a clear financial picture of the economic impacts of the adoption of renewable energy projects within the region.

RDAWBB's project aims to achieve the following outcomes:



Knowledge Sharing with Industry and Business:

By disseminating the project's findings, the goal is to empower Wide Bay Burnett's industry and businesses with the necessary insights to make informed investment decisions.



Facilitating Strategic Planning:

The project will provide valuable information to help the region's industries and businesses identify and plan for future opportunities, ensuring they remain competitive and proactive.



Informing Government Policy:

The outcomes will be used to guide regional policy development, improve regional coordination, and ensure that industry and business are at the decision-making table.

“I'm already self-sufficient. Individual solar represents the BEST ideal in my use case.”

OUR APPROACH



- PHASE 1** **Planning & engagement**
- Project inception meeting to confirm governance arrangements, project scope, expectations, deliverables, resources, timeframes and reporting parameters.
 - Prepare a detailed project plan outlining industry engagement strategy, data collection, and key milestones.
 - Engage university partners and/or consultant(s).

- PHASE 2** **Literature review and data collection**
- Undertake a comprehensive literature review of renewable energy policy, regional infrastructure (commenced and planned projects) and energy use and demand by industry.
 - Undertake economic analysis of industry sectors and key regional stakeholders (within government and industry).
 - Undertake analysis of renewable energy technology and application across industry sectors.
 - Government policy review (including Local Governments within Wide Bay Burnett).

- PHASE 3** **Industry engagement**
- Host workshop briefings with key stakeholders.
 - Conduct targeted industry workshops to validate literature review and data collection, gauge capability, enablers and barriers, technology considerations.
 - Collate actionable insights to support industry and commence design of draft recommendations.

- PHASE 4** **Delivery**
- Draft report and materials distilling learnings from workshops, including an evaluation and relevant amendments to the report.
 - Collate recommendations into an Industry Roadmap to support capability building and build understanding of economic impacts of transition.
 - Host knowledge sharing sessions with key regional stakeholders.
 - Deliver the final report.

- Project Deliverables:**
- Detailed project plan
 - Insights from industry and business engagement
 - Final report and materials, including policy recommendations and industry roadmap
 - Knowledge share of roadmap and tools.

- Project Stakeholders:**
- Industry employers, located within Wide Bay Burnett
 - Queensland Government (Department of State Development and Industry)
 - Two regional universities have indicated a strong interest in the project (University of Southern Queensland and University of Central Queensland)

SURVEY RESULTS

Here's what you had to say.

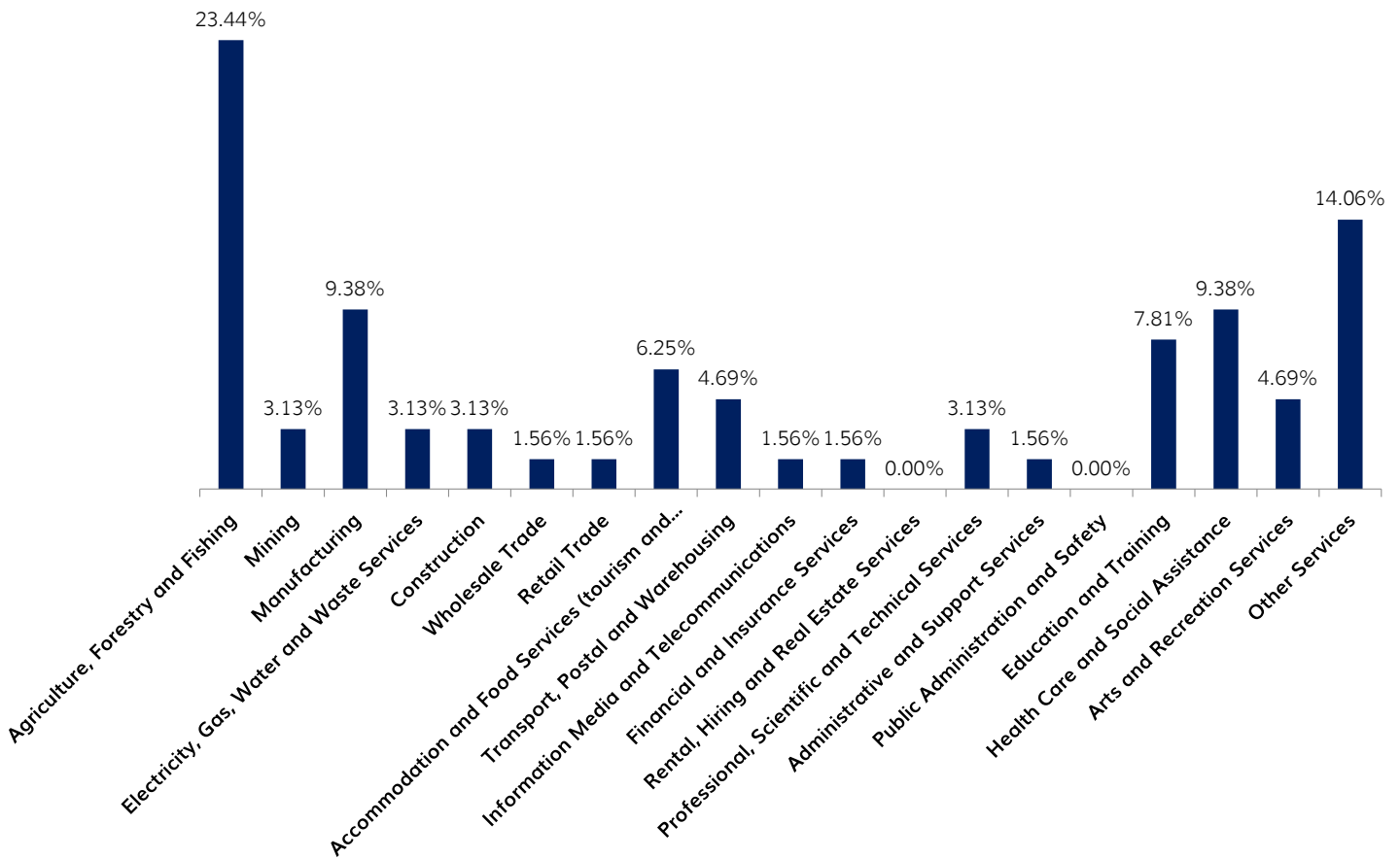
Based on survey results, we have developed this proposal for public viewing. Based on the feedback we have received from you, we have shaped a proposed project for the benefit of the Wide Bay Burnett region.

But....

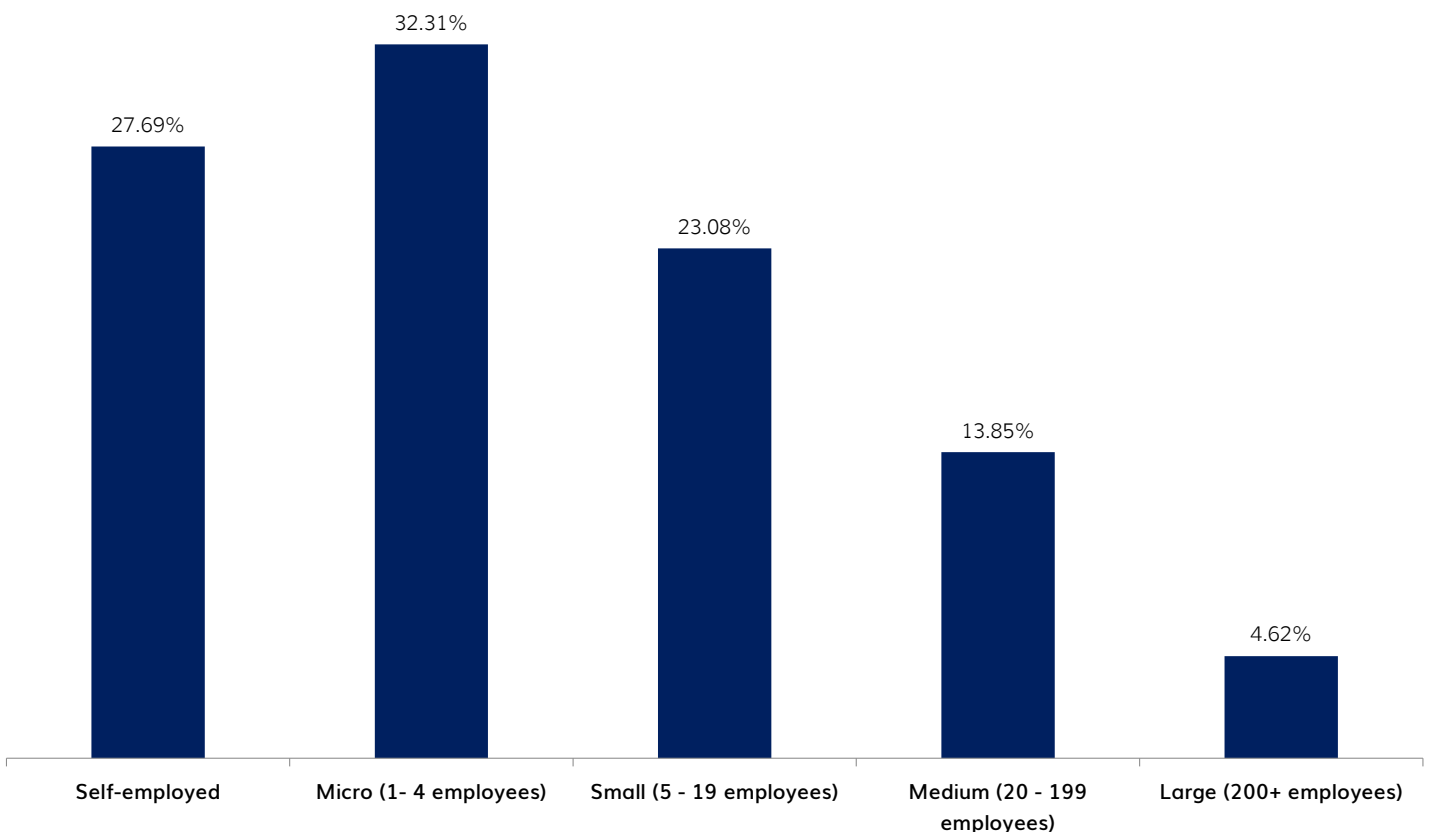
Our work here is not done. This document represents a first draft. You can still have your voice heard by completing the survey.

Renewable Impact and Readiness Survey | Wide Bay Burnett

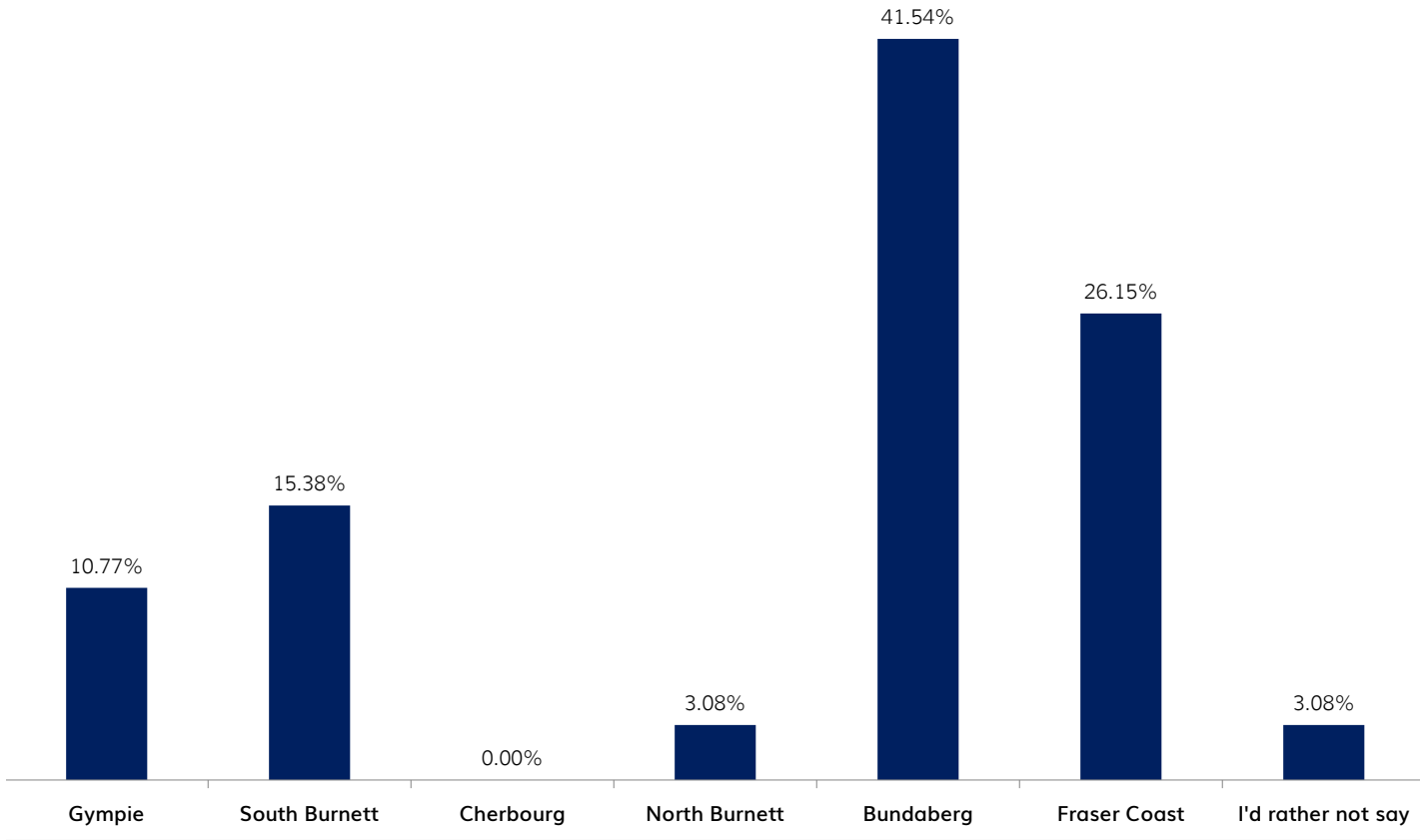
Which industry sector does your business operate in?



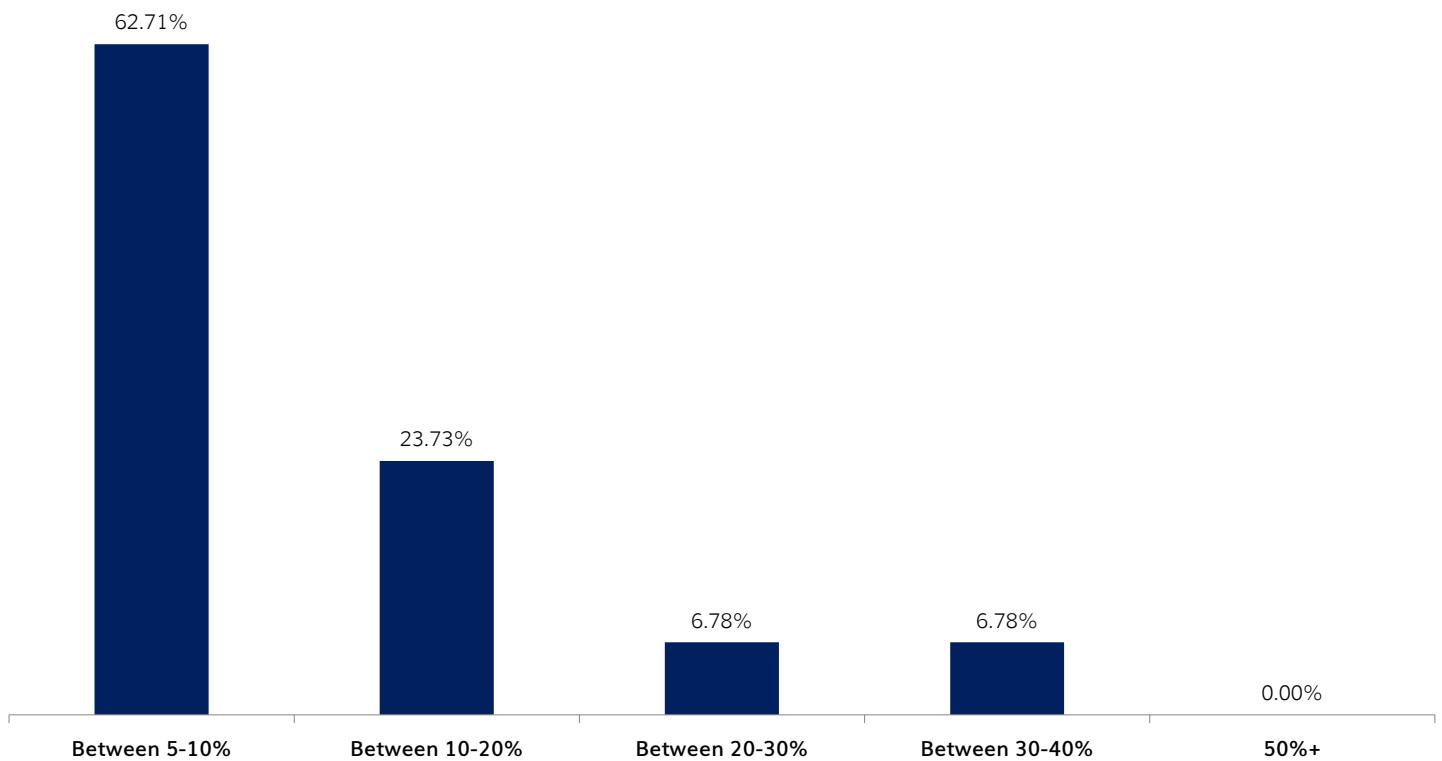
Please select the size of your business:



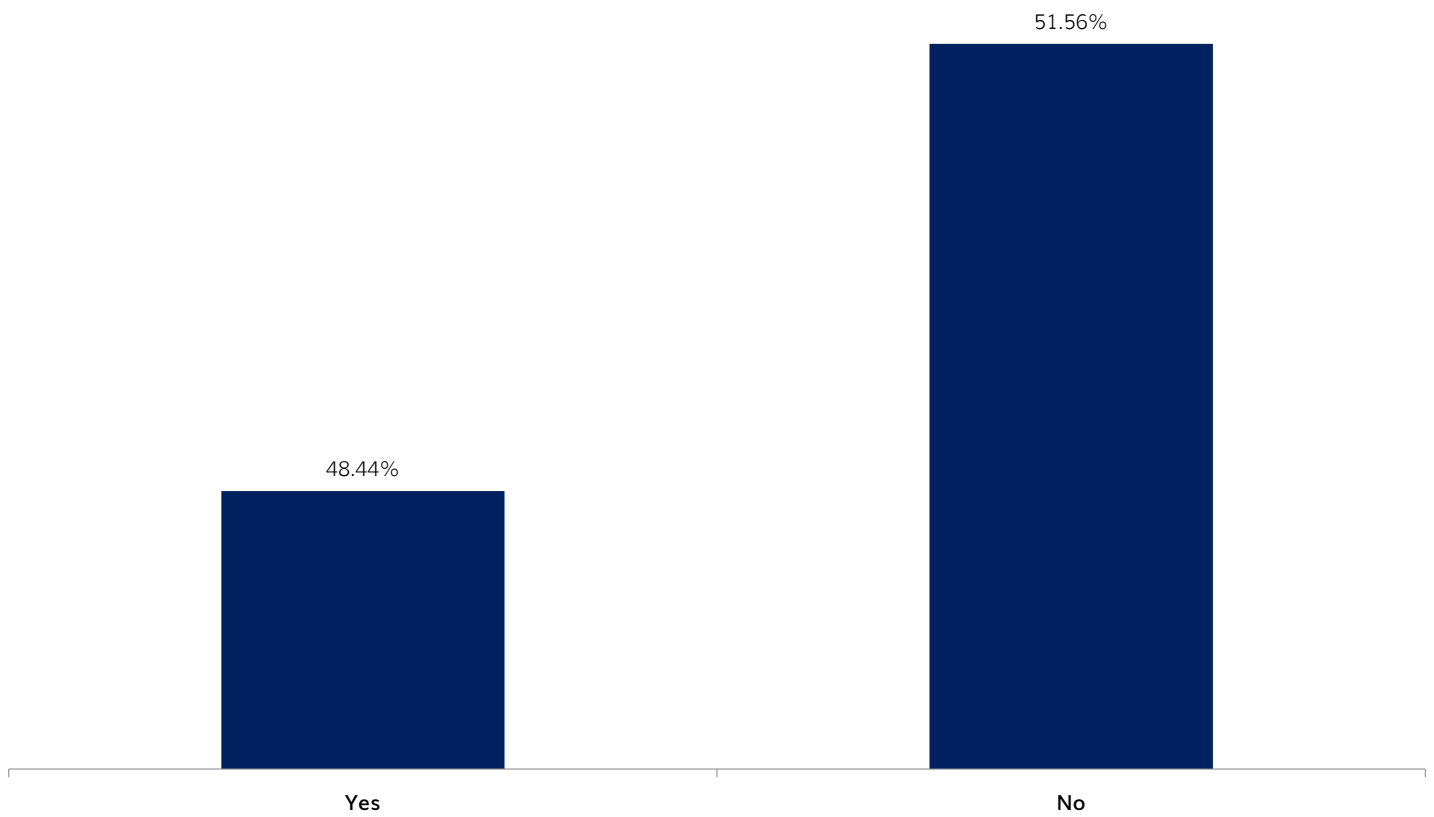
Please select the local government area that your business operates in



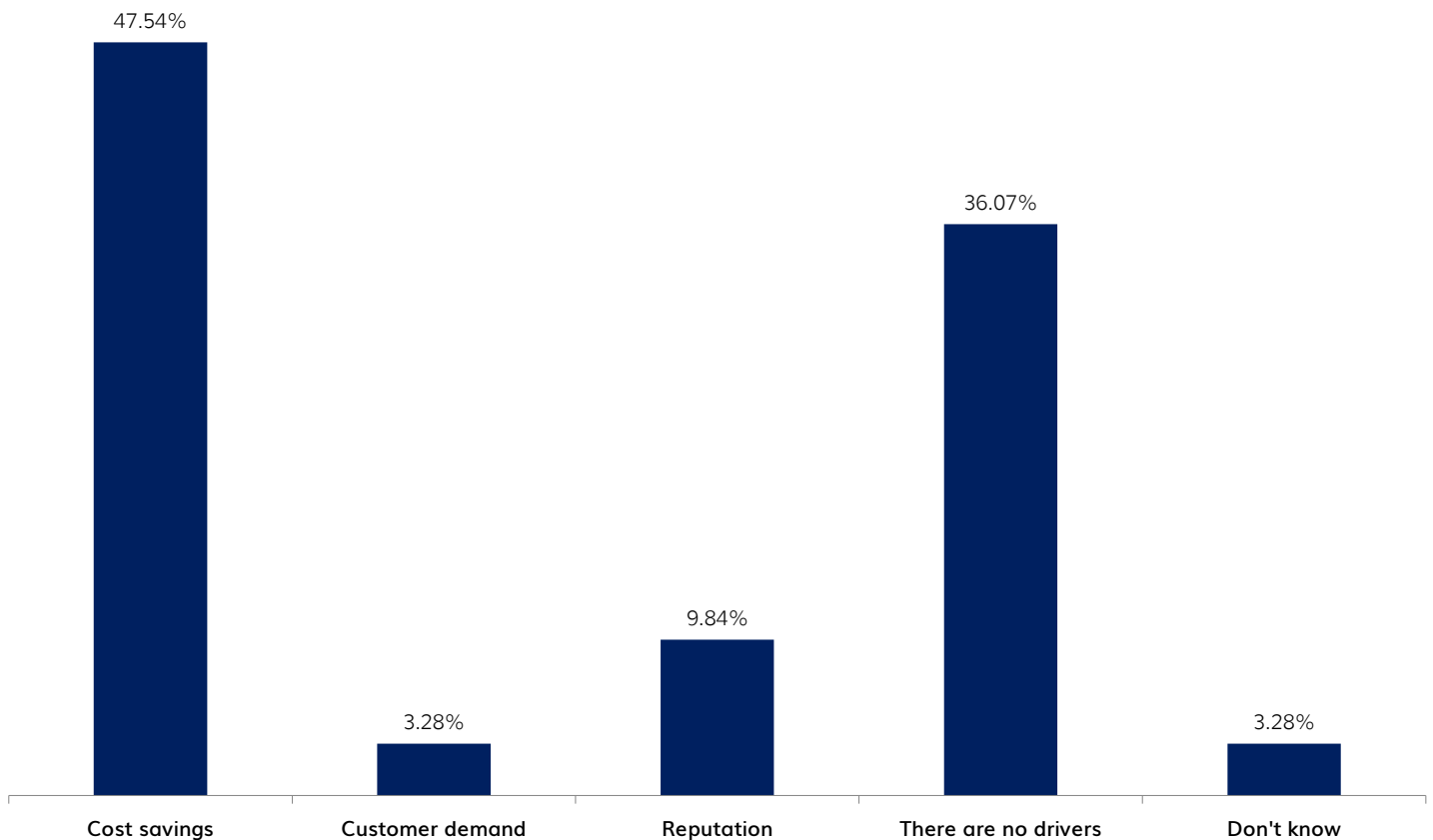
What percentage of your business's operating costs are spent on electricity?



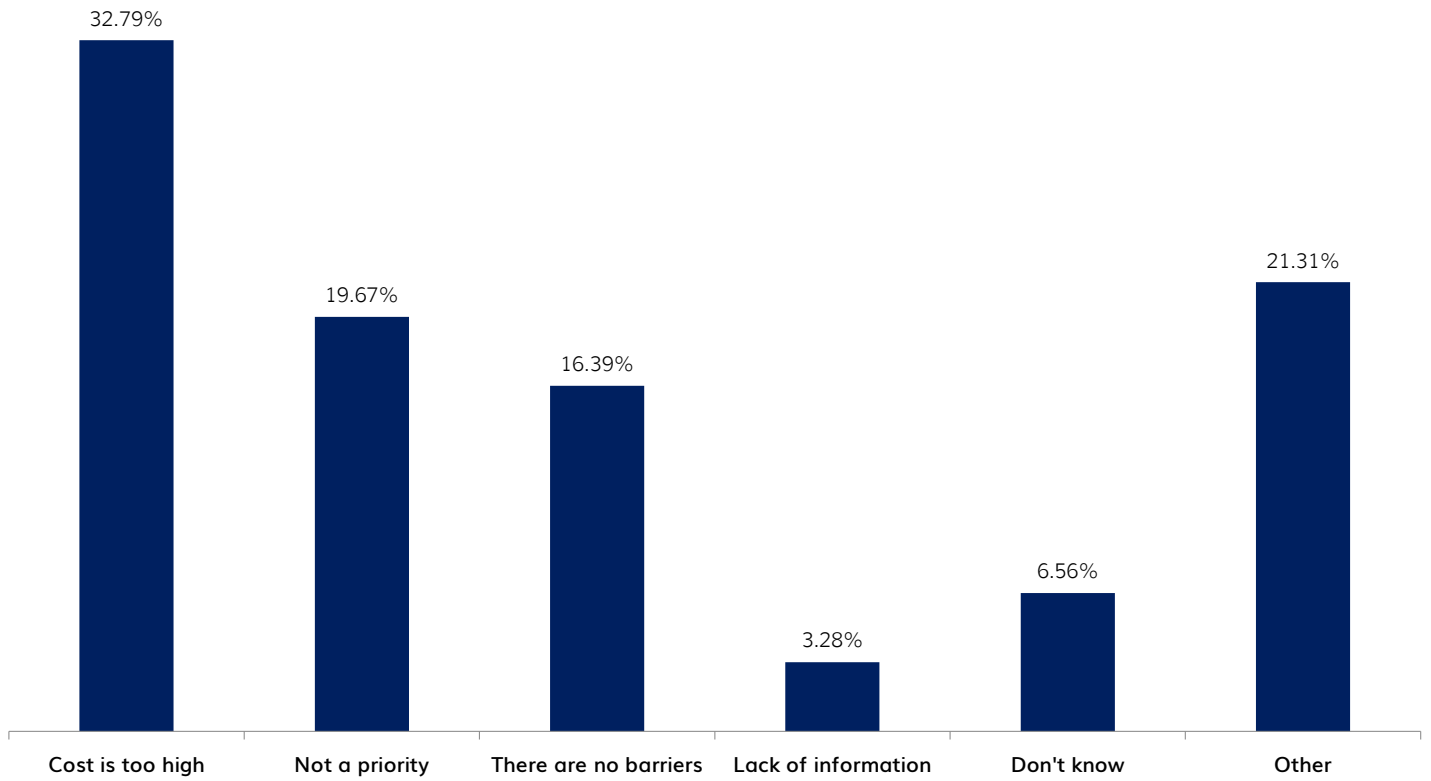
Do you use renewable energy in your business (for example solar)?



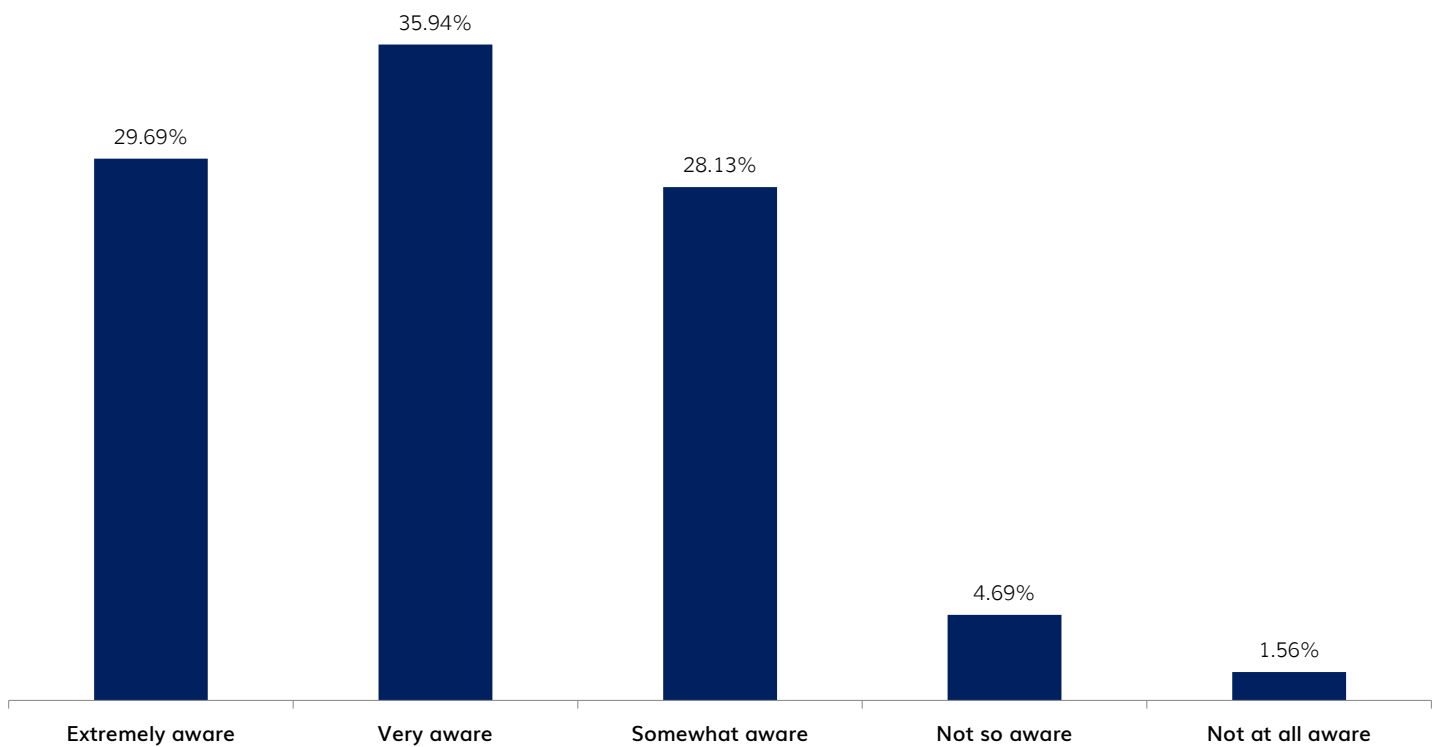
What are the key drivers of using renewable energy in your business?



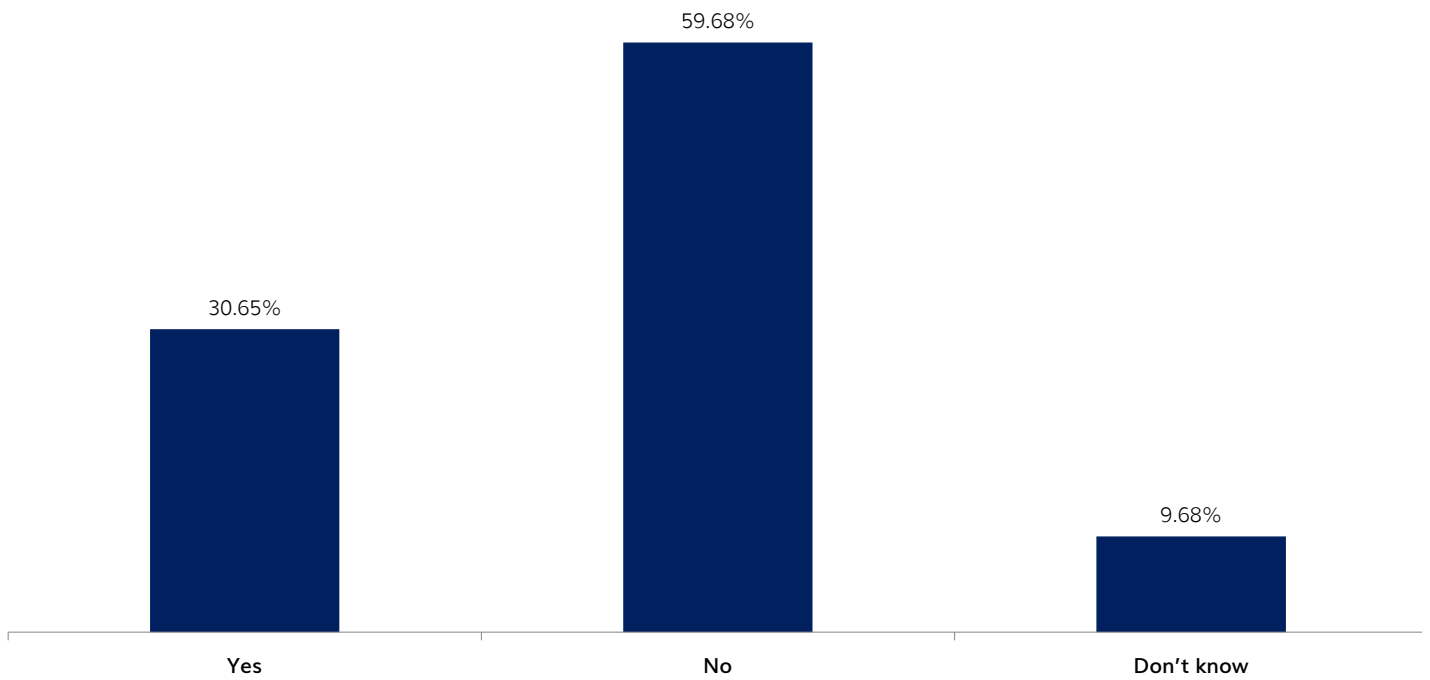
What are the barriers to your organization using more renewable energy?



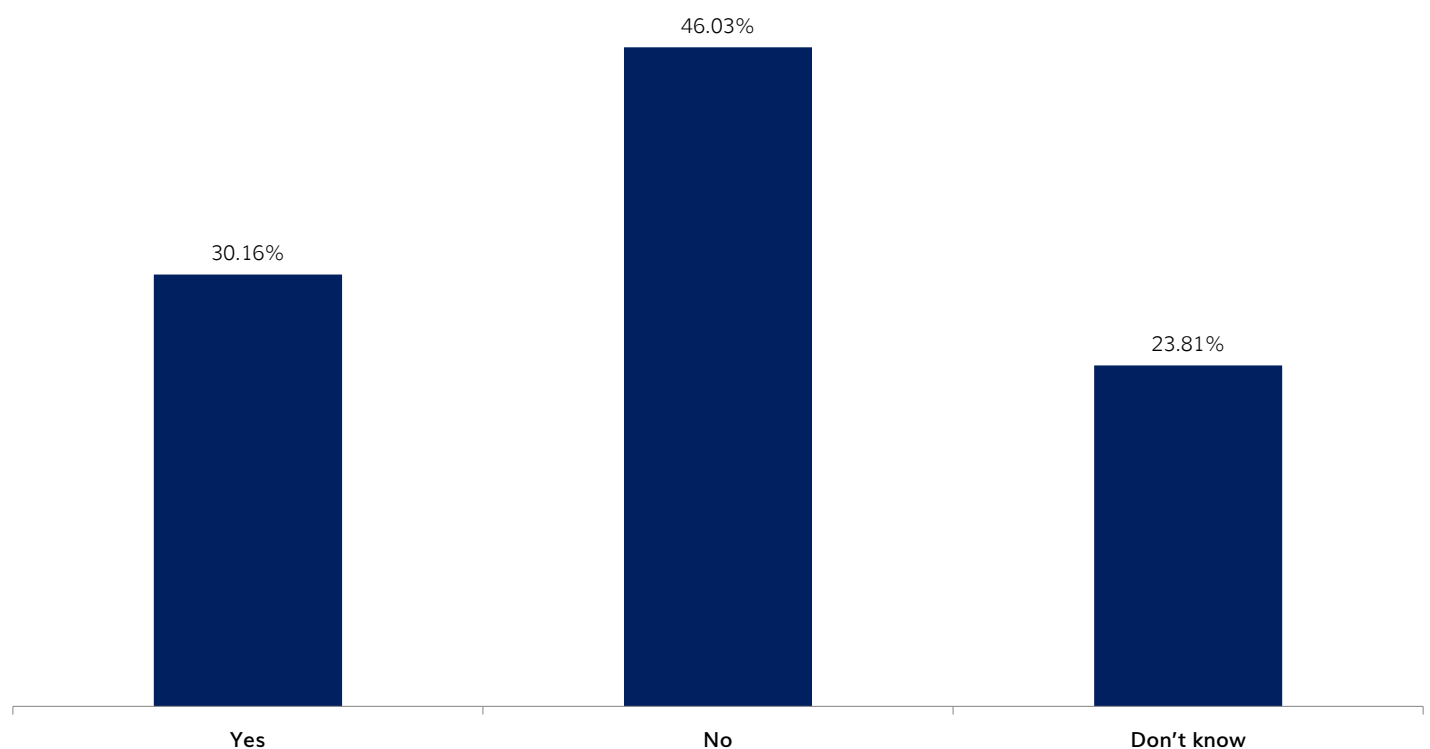
How aware are you of Government (state and federal) commitments to transition to clean (renewable) energy?



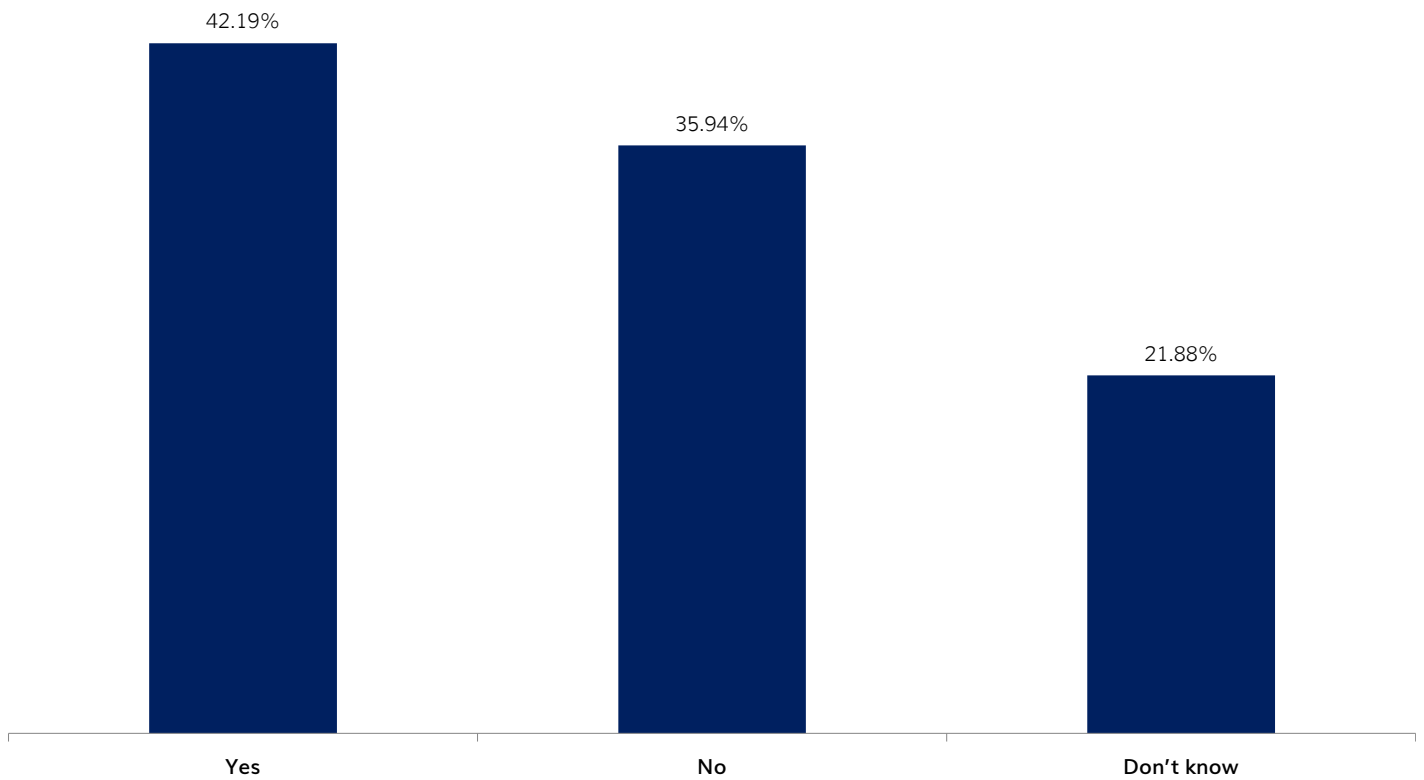
Have you been fully informed by Government about the impact of transitioning from coal fired energy generation to renewable energy sources on your industry?



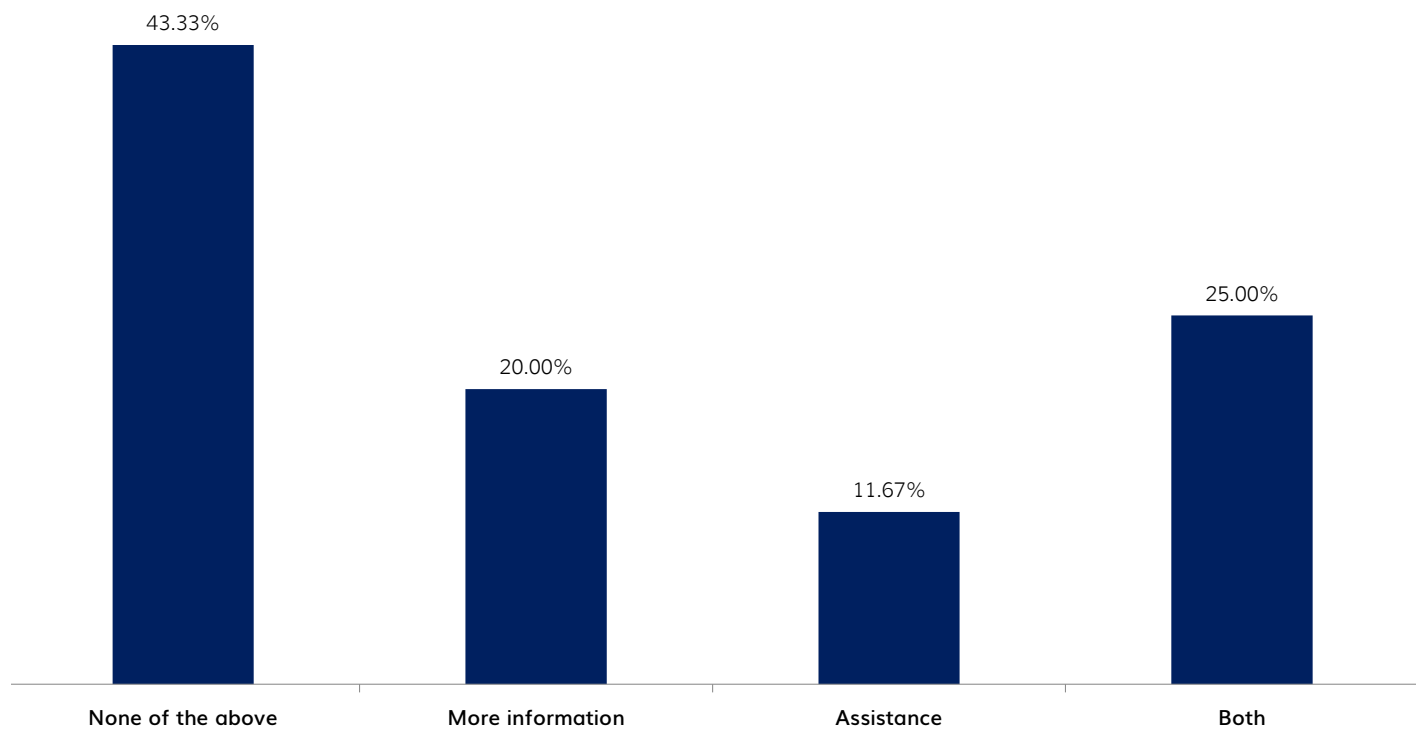
Do you think the transition to renewable energy will be positive for your business?



Will transition to renewable energy impact your growth and investment decisions?



What information do you need from Government, in relation to renewable energy?



“

There are so many wonderful innovative clean energy solutions (including ones created by Australian Inventors) that could transform the energy landscape of Australia (and the world) but our government is too tied to the pockets of limited solutions from big business like nuclear, wind and so forth.

We have solar panels on our shed. This is useful in the daytime. It does not lower the cost of power very much and was expensive to install. Battery storage is very expensive.

Higher costs benefit businesses how?



Why are the region's bearing responsibility for South East Queensland's energy needs?

Suite 19, The Avenue, 58-60 Torquay Road, Pialba Queensland 4655

(07) 4124 2526 | info@rdawidebayburnett.org.au

www.rdawidebayburnett.org.au

”