## **Electrification for farms and agribusiness**





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Enhance your farming operation's energy use and sustainability

Are you looking to reduce your operation's emissions and improve energy efficiency? Electrification could be the key to achieving these goals. Electrifying your assets that rely on gas, diesel, or coal, will help your business achieve significant environmental benefits and unlock potential cost savings.

## Benefits of electrification in farming operations

Agriculture is a broad-ranging industry, and every farm, property, and business operates differently. Electrification involves replacing energy-intensive assets that use fuels like gas, diesel, or coal with electricity. There are many ways your farm can benefit from electrifying operations.



#### Electrification can help to:

### Improve productivity

Are you looking to reduce your emissions and improve energy efficiency? Electrification could be the key to achieving these goals. Electrifying your farming assets that rely on gas, diesel, or coal may help you achieve significant benefits and reap productivity benefits.

#### **Reduce operating costs**

Electric machinery is often more efficient and cheaper to run than diesel, gas or petrol-powered alternatives, leading to significant savings on fuel and maintenance. With diesel to electric pumping conversions potentially resulting in 40% - 60% energy cost savings.

### Achieve greater efficiency

Electric equipment tends to be more reliable and requires less maintenance, minimising downtime and increasing productivity.

## Increase safety

Electric machinery produces less noise and vibration, creating safer and more comfortable working environments for farmers.

# Sustainability and environmental performance

Navigating and quantifying the possible environmental impact of a project can be complex. Access trusted resources from government websites, industry associations, consultants, and distribution network expertise to help you meet and quantify your environmental goals.

# **Preparing for electrification**

The transition to electrification offers significant opportunities to modernise your farming, enhance energy efficiency, and reduce running costs—but we know it won't happen overnight.

**First steps: Develop a plan** Start by creating an electrification plan tailored to your needs. Consider the lifecycle costs of your assets, including upfront investment, operational costs, and potential long-term savings.

Within one to two years: Seek financial support Explore potential rebates, grants, and financing options to make electrification more affordable. Federal and state government programs may offer financial assistance to support your energy transition.

Within two to three years: Implement quick wins Identify and implement quick wins to improve energy efficiency. Ensure new and replacement machinery and equipment is chosen with sustainability in mind, considering installation costs, lifecycle costs, and environmental impacts.

**Following years: Upgrade larger assets** Plan for the transition of larger assets and equipment over time. This may include complex systems like irrigation, heating, cooling, and energy storage solutions.

## Understand your energy consumption

As part of your electrification journey, we'll help you identify your detailed needs and how to transition to electric options. We'll assist you in understanding your energy use, ways to minimise business disruption, and develop your electrification plan.



Farming equipment and machinery: electrify energy-intensive equipment like pumps and irrigation equipment, space heating and cooling, boilers, furnaces, and machinery to achieve long-term savings.

#### Harvesters, tractors and utes:

electric harvesters can improve efficiency and reduce the environmental impact of harvesting crops. Electric tractors and utes offer benefits like lower fuel costs, reduced maintenance, and quieter operation.

#### Pumps and irrigation systems:

electric pumps and controllers for irrigation systems can optimise water usage and reduce energy consumption. Upgrade diesel pumps to electric pumps where possible. Identify grid connection options and assess lifecycle costs for running diesel pumps and gensets.

Livestock facilities: electrify systems for milking production and consider heat pump solutions for heating and cooling in stock sheds and greenhouses. Seeders and planters: electric seeders and planters can enhance precision farming, leading to better crop yields and reduced waste.

Sprayers and spreaders: electric sprayers and spreaders can provide more accurate application of fertilisers and pesticides, improving crop health and reducing chemical use. **Renewables and storage solutions:** incorporate onsite power generation and storage solutions, such as solar systems and battery storage, into your operational goals.





