

# SELECT HARVESTS







LOCATED IN SOUTH AUSTRALIA, VICTORIA AND NEW SOUTH WALES, SELECT HARVESTS' PORTFOLIO INCLUDES **9,262 HECTARES** OF ALMOND ORCHARDS.

THE PROCESSING FACILITY CAN PROCESS **ABOVE 30,000 METRIC TONNES OF ALMONDS** AND IS DESIGNED TO MEET THE INCREASING GLOBAL DEMAND FOR ALMOND PRODUCTS.



Select Harvests is Australia's largest vertically integrated almond food company and the country's leading manufacturer, processor, and marketer of almond products.

### The challenge

At Select Harvests' Allinga Farm operation, costly electrical faults due to poor power quality occurred that caused significant damage to infrastructure, including interruptions to the pump drives that are the heart of the entire farm, ensuring the life-giving water is pumped to 513 hectares of trees through 102km of dripline.

With the hot temperatures and high winds that occur in the Riverland, it is critical the water and fertigation pumps run when required to reduce the risk of stress to the almond trees.

In addition to reducing this risk, Select Harvests wanted to deliver on its sustainability commitments by improving overall energy efficiency across the farm.

Select Harvests engaged AZZO to diagnose, design & implement a solution to the electrical reliability issues and to implement a load management strategy that improved overall energy efficiency.

### The solution

TO INVESTIGATE THE CAUSE OF THE ISSUES, AZZO DEPLOYED ENERGYX PORTABLE METERING UNITS ACROSS THE FARM. OUR TEAM OF POWER QUALITY EXPERTS THEN WORKED WITH SELECT HARVESTS OPERATORS AND ENGINEERS TO DETERMINE WHAT HARMONICS WERE PRESENT, AND WHERE THEY WERE COMING FROM.

Using the results of the EnergyX Portable analysis, it was discovered that the power quality issues were being caused by a combination of harmonics generated by the onsite variable speed drives (VSD), upstream voltage harmonics on the MV incomer, as well as local lightning strikes resulting in transient spikes damaging outbuilding equipment.

Select Harvests purchased two Schneider Electric AccuSine active harmonic filters which were commissioned to ensure optimal operation while taking into consideration the personality and "genetic" makeup of the infrastructure. A 20kVA UPS was also provided and installed in a secondary building. The AZZO EnergyX cloud-hosted Power

Quality Management System was implemented for monitoring and proactive maintenance.

Reducing harmonics in the main pump house contributed to a lower overall load profile on the site, and improved power factor, which lead to a major increase in energy efficiency.

Following the successful installation & commissioning, all harmonic power quality issues have been resolved. AZZO's EnergyX IoT platform has been deployed along with AZZO's Power Quality as a Service (PQaaS) to provide continuous monitoring of the infrastructure, allowing Select Harvests to proactively manage the farm.



# AZZO

technology comes together<sup>®</sup>

Contact us to  
see what we can  
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