

A photograph showing a combine harvester and a tractor in a field during harvest. The combine harvester is on the left, and the tractor is on the right, with a long conveyor belt connecting them, transferring harvested grain. The background shows a line of trees under a blue sky with scattered clouds.

Family-run McAuley Feeds promotes economic and environmental sustainability through demand response

The big picture for a family business

McAuley Feeds is a third-generation, family-owned and operated agriculture business that has been farming in Balrath, Ireland since the mid-1950s. It grows cereal and forage crops to produce feed for livestock such as dairy, beef, and sheep. Over the years the company has continuously evolved, seeking to offer the highest standard of service and delivery, along with efficient and progressive farming practices.

As a high-volume business that operates machinery for five and a half days each week, McAuley uses a significant amount of energy. Its yearly average energy consumption is between 2.7-3 gigawatt hours, representing approximately 17 percent of its annual operating costs.

McAuley appreciates the importance of economic and environmental sustainability for the future of its business. As an agricultural operation, McAuley wanted to ensure that it acted responsibly to reduce emissions and encourage the use of renewable energy generation. And, as a family firm, it wanted to ensure long-term progress and profits across generations.

The company has several renewable generation assets on site, including a Vestas V44 wind turbine, installed in 2014, and an array of solar panels.

**McAuley needed a flexibility solution that offered:**

- An increased revenue stream to offset more of McAuley's energy costs.
- Greater control and flexibility over its response to requests to reduce consumption.

Maintaining productive uptime

McAuley's critical machinery cannot run at a reduced capacity. Its mills, conveyors, and other processing equipment do not allow the company to have partial shutdowns. Any flexibility would have to be a consequence of planned downtime.

Before its partnership with Enel X, McAuley participated in another load shedding programme that operated between 5 p.m. and 7 p.m. The programme did not offset enough of McAuley's energy costs and participation was not flexible enough for its operations. During busy periods, McAuley had to compensate for lost productivity by restarting operations after 7 p.m. and running late into the night.

Combining forecasting and the Capacity Market for greater foresight

Enel X first worked with McAuley to identify the demand response programme most suitable for its operational requirements. By understanding the nature of McAuley's businesses, and where the energy flexibility could come from, it determined that participation in the Capacity Market (CM) was the best solution.

The Capacity Market is one of several schemes that Enel X helps its customers to access. Its function is to ensure the security of the electricity grid by balancing available supply with demand, especially when the grid is under increased levels of stress. Capacity Market customers earn revenue from guaranteeing that they can respond to 'dispatch events' that are caused by a lack of supply. When those events occur, participants like McAuley are requested to reduce their energy demand to stabilise the grid. Emissions are also reduced by preventing the use of fossil-fuelled power stations that would have otherwise compensated for the increased demand for energy.

Enel X conducted a site visit and engineering assessment; ensuring that equipment installation was a simple process, with zero outlay, that took less than a day with no shutdowns involved or impact on operations.

Enel X has supported McAuley and facilitated its access to the Capacity Market for almost 10 years. During that time, Enel X introduced forecasting functionality to give organisations like McAuley greater control over their response to dispatch events. Enel X notifies McAuley with weekly predictions of the likelihood of upcoming events, allowing McAuley to proactively plan its response to potential events.

“Taking part in demand response offers us an additional revenue stream and reduces our overall energy costs. It’s also a way for us to encourage the use of renewable energy and reduce emissions.”

Progressing economic and environmental sustainability

Over the tenure of its partnership with Enel X, McAuley has benefited substantially from its demand side response activities. Enel X’s no cost, low risk demand side response programme has allowed McAuley to reduce its operational costs, decrease its emissions, and support the stabilisation of the grid. The average revenue that McAuley receives is between €10,000 and €12,000 per year. This represents nearly 2% of its annual energy spend.

Michael Mahon, Customer Success Operations Manager at Enel X, commented, “Enel X works closely with its partners to monetise their energy assets and flexible capacity. As a family-owned and operated business, we are proud to support McAuley develop its environmental and economic sustainability.”

Regular forecasting has given McAuley operational flexibility, along with the opportunity to use the planned downtime to carry out other business-critical tasks. This enables McAuley to remain productive during grid events. At busy periods on the farm, McAuley can choose either to not participate or to run its 350kW on-site generator and reduce its offer to Enel X, which helps to maintain its revenue stream.

David McAuley, CEO of McAuley Feeds, commented on the success of the partnership, saying, “Having control of when and how we respond to grid events is crucial to

our operation. The ease of taking part is also a significant benefit for us. Enel X manages participation on our behalf, allowing us to focus on farming and production.”

Furthermore, McAuley promotes the use of renewable energy; having installed several assets on its own site. By supporting the stabilisation of the grid through sharing of its flexible capacity, McAuley also enables more variable renewable energy sources (VRE), such as wind and solar, to be incorporated into the grid.

David McAuley added, “Taking part in demand response offers us an additional revenue stream and reduces our overall energy costs. It’s also a way for us to encourage the use of renewable energy and reduce emissions. It’s low-hanging fruit, and because participation is easy, I’d encourage other organisations to enrol.”

Contact Enel X to make the most of your flexible capacity.

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