

## Variable speed drive fans

# Keep produce cool in storage while saving energy

It is important to store produce in an environment that preserves high quality and prevents diseases. Storage facilities have fans moving large volumes of air that cool the produce as it comes in, and maintains an environment of optimal temperature and humidity throughout the storage season. These fans typically run at a fixed speed and full performance, even when a fraction of the air is required during storage. This results in wasted energy and higher energy bills.



Variable speed drives control fan performance and air volume, maintaining proper conditions for storage, while reducing energy consumption.

Manitoba Hydro offers financial incentives to customers looking to install variable speed drives in their produce storage facilities. A project application form must be completed before equipment is purchased to determine if the project qualifies for an incentive.

The table below shows the energy and dollar savings, as well as incentive amounts, of three separate customers operating vegetable storage sheds.

### Savings examples

	Baseline energy fixed speed (kWh)	Actual energy variable speed (kWh)	Actual energy savings (kWh)	Actual billing savings (\$)	Actual project cost (\$)	Incentive (\$)	Payback (years)
Customer 1	98,175	57,829	40,346	1,490	6,000	3,000	2.0
Customer 2	67,320	42,293	25,027	924	4,000	2,000	2.2
Customer 3	116,387	32,923	83,464	3,081	11,000	5,500	1.8

Ensure your facility meets Manitoba Hydro's Power Quality Specifications (PSQ2000) interconnection requirements, as additional harmonic filtering may be required when installing VFDs.

For more information, visit [hydro.mb.ca](http://hydro.mb.ca) or email [ICS@hydro.mb.ca](mailto:ICS@hydro.mb.ca).

