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Conservation Voltage Deduction

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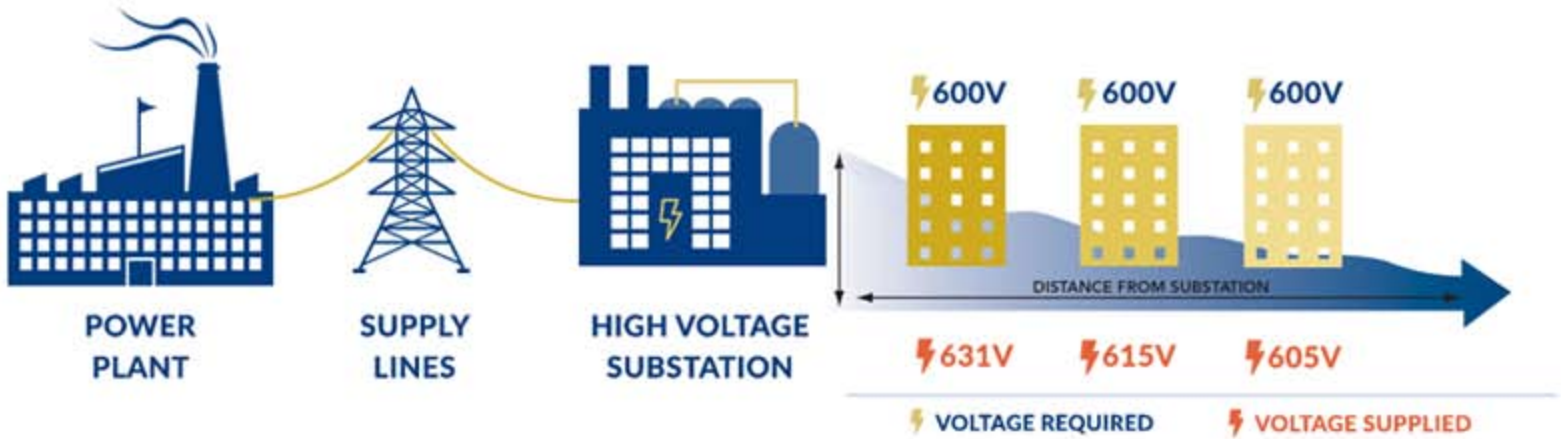
The Problem:
Utilities Can't Deliver Precise Voltage



Voltage is 'lost' when it travels long distances. Extra is added to ensure power is delivered reliably,but it cannot be fine tuned.

"Canada's electrical grid has suffered a long period of underinvestment. Much of the energy infrastructure in Canada is aging and governments have not kept pace with new investments."

— Canadian Electricity Association

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Consequences of High Voltage

- Higher cost electricity bills
- Increased kWh consumption
- Higher peak demand
- Reduced power factor
- Increased emissions
- Equipment failure
- Increased maintenance costs

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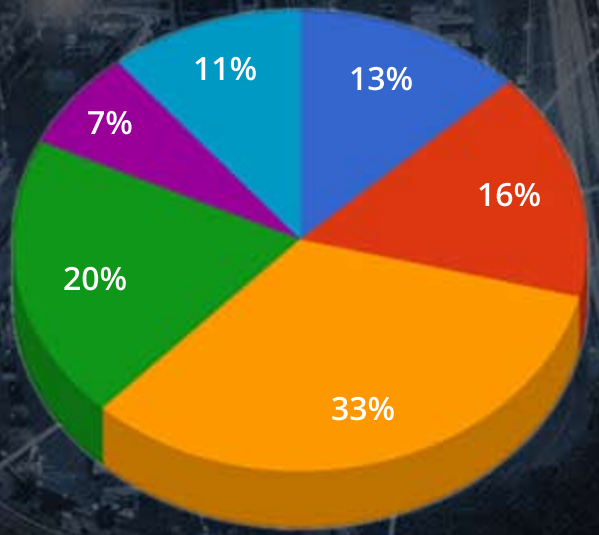
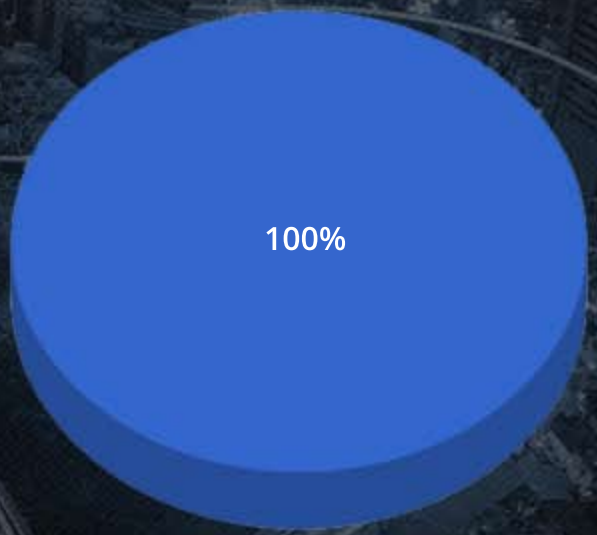
Your Energy Efficiency Strategy

Standard Building Load Breakdown



- Space Cooling
- Space Heating
- Plug and Process Load
- Lighting
- Water Heating
- Ventilation



- 100% Voltage Harmonizer

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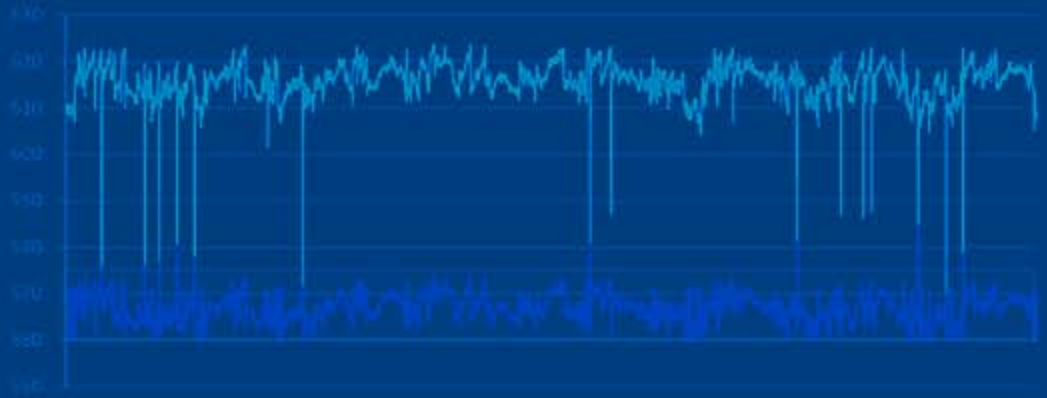
What is Conservation Voltage Reduction (CVR)?

- A proven method of lowering electricity demand and consumption through the reduction of voltage
- Abundant supporting research
- Practiced by utilities at a grid level

You Can't Manage... What You Don't Measure...



Voltage Profile Notes:

- Highest recorded voltage 622V
- Major equipment, typical spec: 575V

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Voltage Harmonizer

Where Proven Technology Meets Innovation

- **Intelligent Controls-** Dynamic capabilities adjust system to voltage requirements in real time
- **System Bypass-** Removes system from circuit during low voltage events (i.e.: brown outs)
- **Enhanced Surge Suppression*-** Built in protection from high voltage events (i.e.: lightning strikes)
- **Auto Transformer-** Foundation of the system. Ultra efficient. Familiar and stable; long useful life
- **Seamless Integration-** Easily incorporated into the electrical room with minimal downtime
- **Real Time Metering**-** Launch in 2016