



“Green Metals has been extremely satisfied with the CHP unit from YANMAR. The smooth installation and trouble-free unit operation have definitely been a major positive. We have been able to enjoy significant energy savings providing a very attractive payback period as well. I would highly recommend YANMAR’s CHP units.” - Tim Cornel, General Manager, Green Metals Canada



### **Project Overview**

Green Metals Canada, Inc. is a large facility located in Woodstock, Ontario used for processing and recycling metal scrap; the building includes a small office space, cafeteria and shower room. For this particular application, a 35 kW Combined Heat and Power (CHP) unit was chosen to cover the base electrical load in the facility, provide heat for the office space and provide hot water for the facility as well as the outdoor truck scale.

### **Reason for Choosing YANMAR**

Green Metals Canada, Inc. is a leading environmentally responsible scrap metal and plastic recycling company, and is a sister company of Toyota Tsusho Canada, Inc., the exclusive distributor of YANMAR cogeneration units in eastern Canada.

As a company focused on environmental responsibility, it was attracted to the fact that YANMAR’s CHP systems can reduce a building’s carbon footprint by as much as 50%.

The company is also able to take advantage of operation cost savings provided by switching to natural gas from the grid as their source for electricity.

Plus, the heat produced by the unit is utilized for the domestic hot water and office heating, as well as to wash off the winter ice build-up around the truck scale located outside; this is a capability the company did not have before, so it was relying on a mobile power wash service at an extra cost.

### **About YANMAR America Energy Systems**

YANMAR America Energy Systems in the North, Central and South American headquarters for the company's Variable Refrigerant Flow and Combined Heat and Power systems. Our team and products are focused on sustainability, reliability, and efficiency.



# QUICK FACTS

**APPLICATION:** Office Building **LOCATION:** Woodstock, ON **COMMISSIONING DATE:** February 2018  
**PRODUCT INSTALLED:** CP35VC-TNC **RESULTS:** Four month savings of more than \$6,800 / Average monthly use of more than 31 kW / Average monthly operation of more than 400 hours.



## RESULTS

- Overall, the CP35VC's electric utilization is high, averaging 90% over the first four months of operation.
- The CP35VC has resulted in an average monthly operating savings of \$1,300 by switching to natural gas driven electric and heat production.
- The building now has the ability to wash off the winter ice build-up around the truck scale located outside at a low cost.

## CONCLUSION

The project successfully demonstrates the application of the YANMAR mCHP in an industrial facility. The unit has lived up to its promise of high heat and electrical efficiency during its first four months of operation due to a well-designed project application.

**YANMAR mCHP Savings - March through June 2016**

