



6328 A 104 Street Edmonton, AB T5K 0Z3 tel: 780.433.8702 fax: 780.433.3792

info@gresworld.com

# Save Energy on Your Farm

For all agricultural production and food processing systems that have high energy-intensive production costs.

Goal is to minimize energy consumption through Energy Efficiency and Renewable Energy.

Substantial utility cost savings that pays for the projects chosen.

STEP ONE: AUDIT

STEP TWO: FINANCE

• STEP THREE: INSTALLATION

STEP FOUR: MEASUREMENT AND VERIFICATION



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## Farm Energy Efficiency – Suggested Options

<u>Lighting</u> - Upgrade existing lights to LED high bay with gasket vapour/acrylic cover. 4 lamp 240 watt fixture.

<u>Preheat Domestic Hot Water with Solar</u> - Install solar thermal hot water heating system that feeds into a preheat tank.

Soften Water - Install water softeners ahead of the hot water tank.

<u>Recycle Hot Water</u> - Collect water before it goes to drain where it will be cleaned and recycled. for salt/soap and sand any other particles before reuse. Recycled water can be used for cleaning water with one additional filtration cycle. Recover on average 80% of water utilizing cost effective systems including underground separation tanks and final filtration system.

<u>Heat Recovery</u> - Capture and recycle heated air to be used to heat new air coming into the building. Heat recovery system recovers water from air - up to 15 gallons per hr can be recovered.

Smart Metering – one system allows for monitoring of 34 electrical submetering points

Air Curtains - Creates up to 90% seal on open doors using facility air.

Financing -All measures can be financed and paid for out of utility savings.

# **Additional Options**

Variable speed drives for pumps, fans, compressors, conveyers

Renwable energy supply options including:

PV solar Thermal solar Ground source heat pumps Cogen

Tankless (inline) natural gas or electric water heaters with Energy Factor of 0.93 or higher;

High-volume, low-speed (HVLS) circulation fan

Natural gas boilers with AFUE of 95% or higher

Natural gas radiant tube

**Building Insulation** 

**Energy Efficient Windows and Doors** 





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# **Energy Efficiency Financing Summary**

#### SINGLE SOURCE INTEGRATED APPROACH

Our team of financial, engineering and project management professionals have developed a structured approach that mitigates design and implementation risk and ensures improved performance and reduced energy consumption while generating sustainable financial savings.

#### NON-DEBT FINANCING

Program provides up to 100% of financing in a flexible, non-debt solution that gives building owners the opportunity to significantly improve building performance without affecting the balance sheet.

#### FREEDOM OF CHOICE

Allows for the use of a number of pre-selected engineers as well as flexibility on choice of equipment from reputable suppliers.

Building owners receive the best technology at the most competitive prices

#### INSURED PROCESS MANAGEMENT

Reduces the financial risk of retrofit projects through its insured energy savings warranty program. For the duration of the project, its partners will measure and verify the performance of the retrofit project using the most recognized independent protocol (IPMVP). Quarterly reports will be provided to the building owner demonstrating the energy and cost savings.

#### **HOW IT WORKS**

Only four steps to shrinking your utility bill, eliminating wasted energy, and reducing your carbon footprint. Program provides a seamless, single-source solution as our team designs, finances, installs, manages and monitors your building retrofit.





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### STEP ONE: AUDIT

Partners work with you to identify and develop a customized approach that meets your financing and technical needs. Through a structured screening process, you select an engineer and identify the project's technical and financial viability. Once an audit is conducted, the data is used to create a finance-able project.

#### STEP TWO: FINANCE

A financial model is created based on the information received from the audit. The program works with the building owner to create the most viable shared savings arrangement. A Letter of Intent is drawn up describing the financial terms and conditions of implementing the energy efficiency retrofit best suited to the building's needs. The Energy Savings Performance Agreement (ESPA™) is a unique non-debt financing solution that covers retrofit costs while decreasing your operating expenses. Repayment is equal to, or less than, the energy savings. The project must be repaid in full within 10 years based on the energy savings. Once the terms and conditions of the ESPA™ are completed – over a period of seven to 10 years on average – the building owner retains 100% of the energy savings.

#### STEP THREE: INSTALLATION

Following acceptance of the contract, the engineer procures and manages the entire installation process. Installation times vary depending on the size of the project, with most multi-measure projects taking three to five months.

#### STEP FOUR: MEASUREMENT AND VERIFICATION

For the duration of the contract, partners measure and verify the performance of the retrofit project using the most recognized independent protocol (IPMVP). Quarterly reports are provided to the building owner demonstrating the energy and cost savings.

Contact brian@gresworld.com 780-433-8702 780-990-9887