



Empowering Businesses To Save Money
Through **GREEN** Business Practices
greenbackproject.com

Grand Junction Chamber of Commerce Greenback\$ Xcel Energy

Cost of Doing Nothing Energy Efficiency Workshop

May 5, 2011



RESPONSIBLE BY NATURE™

Agenda:

- **Welcome**
Lynn Solrey, Greenback\$
- **Program Agenda**
Tom Minerick, Xcel Energy
- **Xcel Energy Business Efficiency Program Overview & Background**
Bob Macauley
- **Xcel Website Navigation** Bob Macauley
“How to find the right resources at Xcel Energy”
- **Break** -
- **Xcel Small Business Lighting Program**, Ellison Bruce
- **Xcel Energy Audits & Studies: Christmas Ramirez**
“Getting Started with Energy Efficiency”
- **Xcel Prescriptive Programs: Heating –Motors – VFD’s** - Bob Macauley
- **Xcel Energy Custom Program – Tim Mess**
“Get Rebate Dollars for Energy Saving Projects”

- **Q&A**
- **Break** -
- **Lunch – Keynote speaker, Craig Severence**
“Creatively Finance Energy Efficiency Improvements”

Xcel Energy Business Rebate Programs

- Reason for the Energy Efficiency Rebate Programs
- Overview of Business Programs
- Contacts within Xcel Energy
- The NEW Xcel Energy web-site

Lighting Efficiency Rebate Programs

■ Franklin Energy

- ◆ call 1-877-287-2250

- ◆ Email:

 - XcelSBL@FranklinEnergy.com

- ◆ Ellison Bruce

- ◆ Francis Xavier

Small Business Lighting & GreenBack\$



The GreenBack\$ Program

- Is a voluntary program consisting of 3 Levels
- Designed to help businesses save money and resources by becoming more energy efficient.
- Become good corporate stewards, and contribute to the overall environmental health of The Grand Valley
- You decide what level of participation is appropriate for your company

GreenBack\$

Level 1

- ◆ Achieve 80% and receive \$200 towards a full building audit.
- ◆ Save \$\$\$\$\$\$\$\$\$\$



Evaluation Information & Instructions

By completing 80% of all applicable items you are eligible to receive \$200 towards an energy audit. See bottom of survey for submission instructions & contact information. Please visit the resources page for providers who can help you complete your level.

	Check Applicable:			Check Applicable:	
	Completed	Not applicable		Completed	Not applicable
1. Create an employee "Green Team" with a lead or point person http://www.energystar.gov/ia/business/challenge/rygsaw/Green_team_checklist_FINAL_4.pdf	<input type="checkbox"/>	<input type="checkbox"/>	Efficient thermostat settings and monitor	<input type="checkbox"/>	<input type="checkbox"/>
2. Conduct a walk through evaluation of your facility http://www.xcelenergy.com/StaticCollectionDocuments/docs/BusinessOnlineEnergyAssessmentBrochure.pdf http://www.energyprofessionals.com/xcelenergy/ https://forms.xcelenergy.com/_layouts/FormViewer.aspx?ow=BusinessEnergySavingGuide.usx	<input type="checkbox"/>	<input type="checkbox"/>	Detect cracks/gaps in the building on a monthly basis	<input type="checkbox"/>	<input type="checkbox"/>
3. Create an action list to possible changes using the results of the evaluation	<input type="checkbox"/>	<input type="checkbox"/>	Water tanks and pipes	<input type="checkbox"/>	<input type="checkbox"/>
4. Learn how to read and monitor your gas, electric, and water bills to identify possible problems http://www.xcelenergy.com/Colorado/Business/ManageMyAccount/HowToReadAMeter/Pages/Question_How_to_read_my_gas_and_or_electric_meter.aspx http://www.xcelenergy.com/Colorado/Business/ManageMyAccount/UnderstandingMyBill/Pages/Understanding_My_Bill.aspx	<input type="checkbox"/>	<input type="checkbox"/>	Check inside and out for water systems leaking and repair	<input type="checkbox"/>	<input type="checkbox"/>
5. Manage your computers to hibernate during the day and turn off at night and during weekends http://www.energystar.gov/index.cfm?c=power_mgt.pr_power_mgt_faq	<input type="checkbox"/>	<input type="checkbox"/>	Use low flow toilet flappers and flushometer	<input type="checkbox"/>	<input type="checkbox"/>
6. Consolidate printers, set to double-sided and print only when needed http://www.energystar.gov/index.cfm?c=power_mgt.pr_power_mgt_faq	<input type="checkbox"/>	<input type="checkbox"/>	Install automatic toilet flushing systems and faucets on sinks	<input type="checkbox"/>	<input type="checkbox"/>
7. Manage phantom loads http://www.energystar.gov/index.cfm?c=power_mgt.pr_power_mgt_faq	<input type="checkbox"/>	<input type="checkbox"/>	Reduce coffee cups/glasses, eliminate serving water in individual offices	<input type="checkbox"/>	<input type="checkbox"/>
8. Change 25% of lighting to energy efficient lighting http://www.energystar.gov/index.cfm?c=power_mgt.pr_power_mgt_faq	<input type="checkbox"/>	<input type="checkbox"/>	Use video conferencing or tele-conferencing instead of traveling to meetings	<input type="checkbox"/>	<input type="checkbox"/>
9. Use day lighting http://rechargecolorado.com/images/uploads/pdf/100204_Daylighting_Webinar.pdf	<input type="checkbox"/>	<input type="checkbox"/>	Encourage employees to bike to work	<input type="checkbox"/>	<input type="checkbox"/>
10. Change air filters/furnace filters monthly	<input type="checkbox"/>	<input type="checkbox"/>	Recycle bins inside your office	<input type="checkbox"/>	<input type="checkbox"/>

Program is a self-administered and self-audited program. Members that complete the survey will receive GreenBack\$ Program Business designation in their Chamber's on-line Business Directory.

OFFICE USE ONLY

Member of: Grand Junction Chamber Fruita Chamber Palisade Chamber

Member ID # _____
Directory designation added (date): _____

Small Business Lighting Program?

The Small Business Lighting program offers rebates & special services for small & mid-sized business facilities that have a peak demand of 400 kW or less.

✦ Prescriptive Projects

- One-for-one

✦ Custom Projects

- Pre-approval required

Free Lighting Assessment

Franklin Provides On-Site Lighting Assessment

- Walk facility with customer
- Document existing equipment
- Identify opportunities for efficient lighting
- Determine Xcel Rebate available and Savings Potential

SBL Audit Report

Recommendation	Location	Peak Demand Savings (kW)	Annual Energy Savings (kWh)	Annual Cost Savings (\$)	Xcel Energy Rebate (\$)
4L F32T8 with LBF Electronic Ballast	Warehouse	0.9	2,188	\$259	\$1,210
LED Exit Sign	Warehouse	0.1	184	\$15	\$15
	TOTAL	1.0	2,372	\$274	\$1,225

Recommendation: **4L F32T8 with LBF Electronic Ballast** Location: **Warehouse**

Existing: **2L F96T12 60W Slimline with Magnetic Ballast**

Replace qty 55 2-lamp 8' T12 fixtures with qty 55 4-lamp 4' T8 fixtures.

Quantity:	55	Cost Savings (\$/yr)*:	\$259
Energy Savings (kWh/yr)*:	2,188	Xcel Energy Rebate (\$):	\$1,210

Recommendation: **LED Exit Sign** Location: **Warehouse**

Existing: **40W Incandescent Exit Sign**

Quantity:	1	Cost Savings (\$/yr)*:	\$15
Energy Savings (kWh/yr)*:	184	Xcel Energy Rebate (\$):	\$15

Assist You Through The Process:

- ✦ **EDUCATE** you on lighting efficiency options
- ✦ **Help** you complete Level 1
- ✦ **FACILITATE** communication between customer and contractor
- ✦ **CONFIRM** new equipment qualification for Rebate
- ✦ **Complete ALL REBATE PAPERWORK**
 - **Submit Xcel Rebate Applications** for prompt rebate processing.

Contact Information

Contact us to discuss YOUR lighting project:

Xcel Energy Small Business Lighting Program
Franklin Energy Services LLC
1821 Blake Street Suite 1D
Denver, CO 80202
303-297-3410


Angelica Demopoulos, Project Coordinator

E-mail – ademopoulos@franklinenergy.com



Audits and Studies

Christmas Ramirez
303-294-2432
Christmas.R.Ramirez@xcelenergy.com



Energy Analysis

- Online Assessment
 - ◆ Free tool for customers to benchmark their building and identify energy saving opportunities
 - ◆ Customer performs analysis on their own- FREE
- Onsite Assessment
 - ◆ Energy Advisor performs a walk through of the building
 - ◆ Included in assessment:
 - Energy end-use profile
 - General description of customer and facility operation
 - Recommendations on conservation opportunities including project cost, payback, rebates and energy savings
 - Estimated equipment inventories, quantified and strategized opportunities
 - ◆ Study is the right choice for businesses that want:
 - Analysis on end uses your building has– Where does your energy go?
 - Recommendations of where to start with upgrades, and assistance in the next step forward
 - Cost is low- \$200 for under 25,000 sq ft.; \$300 for over 25,000 sq ft.; 150,000 sq ft. and over should call our business solutions center for pricing.

Energy Analysis

- Engineering Assistance Studies
 - ◆ **Considering a major process change or system replacement**
 - ◆ **Identifies energy saving opportunities with the associated payback, energy and cost savings and eligible rebates**

Study is the right choice for businesses that want to:

- **Analyze a specific process or end use- ex. Cooling system, pumping processes such as water irrigation pumps for golf courses, or water treatment plants.**
- **Have a business case to move a project forward through engineering details**
- **Analyze one of the following systems: Refrigeration, cooling, process or custom efficiency projects**

Lighting Redesign

- Starts with an analysis of your current lighting system
- Determines proper light levels for your space
- Recommends solutions to best meet your needs
- Identifies energy savings, cost estimates and rebate amounts for individual energy conservation opportunities

- Study is the right choice if:
 - ◆ Your lighting needs may be markedly different than what is provided by the existing lighting system in the building.
 - ◆ Your facility is overlit or mislit
 - ◆ You have received complaints of glare from employees or tenants.
 - ◆ You want to look at many feasible options before the upgrade

Compressed Air Study

Study

- **Preapproval required**
 - >49 hp & > 2000 hrs/yr
- 50hp – 100hp = 100% up to \$2500
- >100hp = 75% up to \$15000
- After fix > 50% of leaks (CFM)

Prescriptive

- No Preapproval required
- \$4000/10 – 25 hp VFD, replacement
- \$4500/25 – 49hp VFD, replacement
- \$200/NALD, new or replacement

Custom

- Preapproval required
- \$400/KW average demand reduction (can be by shift)

Recommissioning

- **Making sure your equipment and controls are running as efficiently as possible. It is a process of tuning up your existing equipment, rather than replacing it to make it efficient.**

- **Study is the right choice for your business if:**
 - ◆ **Have never commissioned your building before. Most buildings have not been commissioned.**
 - ◆ **Want to make sure your equipment is running as efficiently as possible**
 - ◆ **Have a control system and are not sure it is controlling everything effectively**
 - ◆ **Typically gets comfort complaints (people are hot/cold)**
 - ◆ **Want to increase your energy star score or earn LEED for Existing Building points (you can earn up to 6 points for recommissioning your building)**

Xcel Energy's Definition of Recommissioning (RCx)

- Recommissioning is the process of **returning a building's** mechanical and lighting **systems**, along with the building controls, **to their peak performance**. This is **done through the** **investigation** of the existing system performance, the **adjustment** of the operating parameters and the **repair** of faulty equipment. Recommissioning is intended to **optimize the existing systems** **without having to add new components**, which typically exposes low cost measures with attractive paybacks.

**Our program covers both
recommissioning and retrocommissioning**

Data Center Efficiency

- For new and existing data centers
- Holistic approach – one study
 - ◆ **IT, mechanical, electrical**
 - ◆ **Data center study funding**
 - ◆ **Project implementation rebates**



Data Centers

- Studies identify savings
 - ◆ **Identifies energy savings and rebates**
 - ◆ **Build business case for project approval**
 - ◆ **Details how to run at peak efficiency**
- Implementation realizes savings
 - ◆ **Improves ROI for equipment and system improvements**
 - ◆ **Helps manage energy costs**
 - ◆ **Can improve reliability**
- Study is the right choice for businesses that:
 - ◆ **Have any size data center**
 - ◆ **Want to take a holistic look at energy efficiency specific to data center needs**
 - ◆ **Need business case justification for improvements**
 - ◆ **Maximize energy savings and qualify for higher rebates***

Other study based programs available...

- Standard Offer
- Refrigeration Recommissioning
- Process Efficiency
- Commercial Real Estate Efficiency

Application Process

Two parts – study & implementation

■ Part 1: Study

- ◆ Preapproval application with proposal
 - Check with each program as different requirements are in place for eligible providers
 - ◆ Some require certifications for your provider to have, ex. Lighting Redesign program.
- ◆ Xcel Energy reviews to determine potential study funding, notifies customer
 - up to 75% of cost; not to exceed \$25,000
- ◆ Study provider completes study and submits final for approval
- ◆ We review and offer implementation rebates upon approval

Process: Phase 2

- Customer already completed a study?
 - ◆ **Apply for Fast Track Study option**
 - Some programs don't offer this!
 - ◆ (See program website for more information)
 - **Previously completed study**
 - **No study funding**
 - **Study review by Xcel Energy**
- Part 2: Implementation rebates
 - ◆ **Up to \$400 per kW saved**
 - ◆ **Up to \$7 per dekatherm saved**
 - ◆ **Prescriptive rebates vary**

Process: Study Recommendations

- Result in:
 - ◆ **Prescriptive opportunities**
 - ◆ **Custom opportunities**
 - ◆ **Recommissioning opportunities**
 - ◆ **Bundled measures**

- All opportunities are eligible for implementation rebates
- ◆ **Excluding Custom or Recommissioning measures that have less than a 1 year or greater than a 15 year payback**

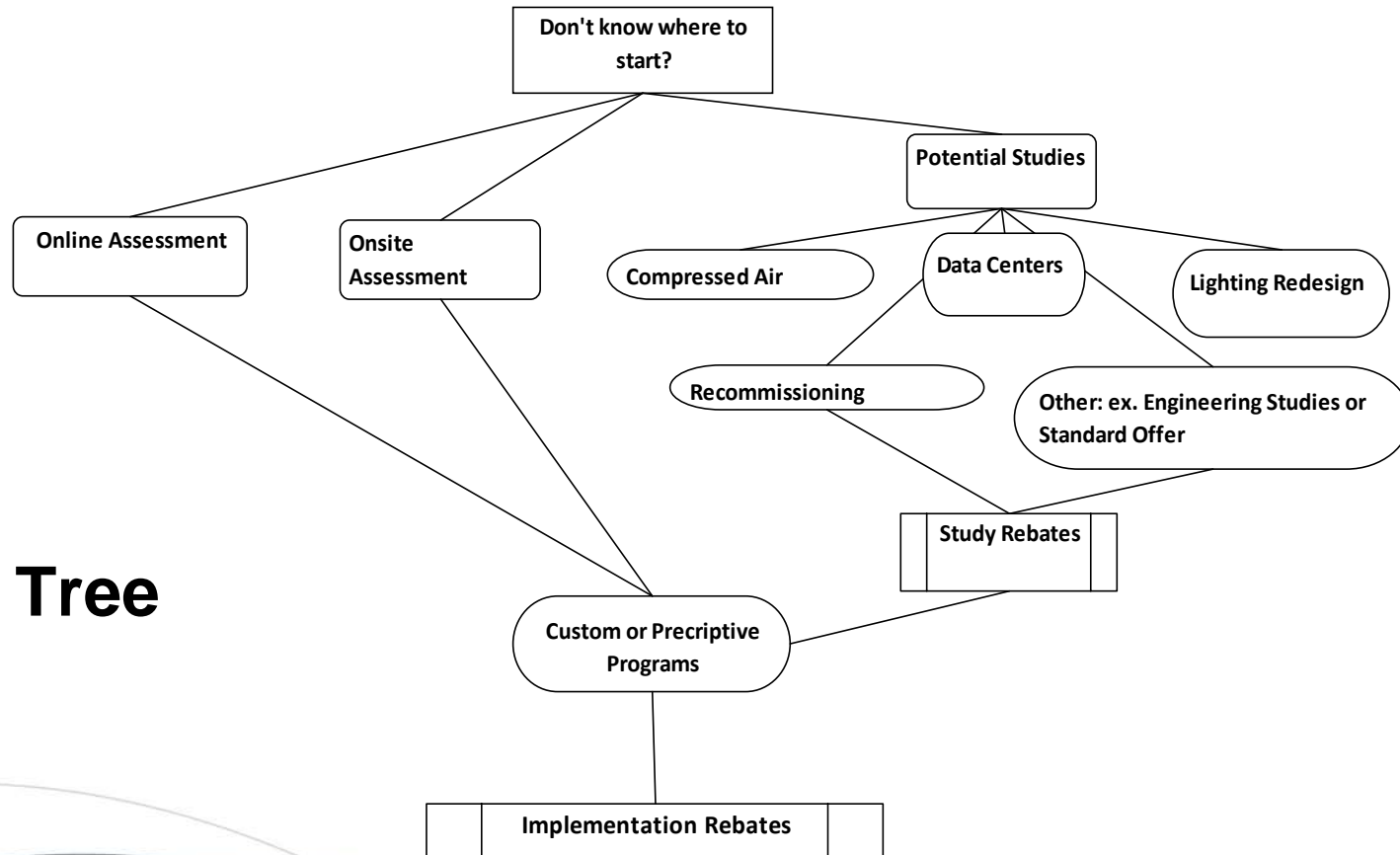
Application Requirements

Information required when submitting a study preapproval application

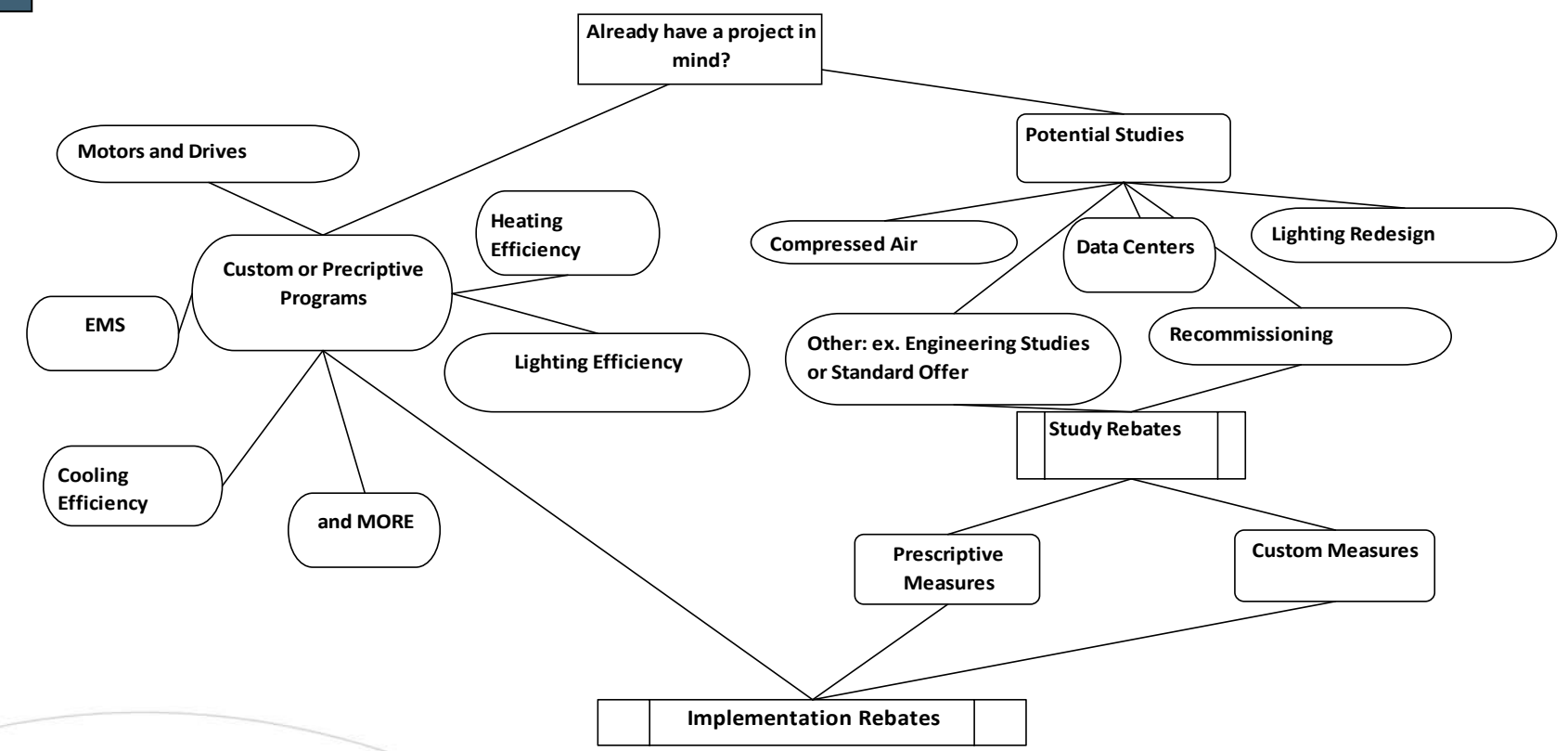
	Onsite	Engineering Study	Recommissioning	Data Center	Compressed Air	Lighting Redesign
Preapproval Application	X	X	X	X	X	X
Proposal		X	X	X	X	X

Onsite Assessment applications do not require a proposal!

**All other study based programs not listed here require preapproval
BEFORE you begin the study!**



Decision Tree



Opportunities in Market Place

- Stimulus dollars have instigated city programs to offering additional money for energy efficiency upgrades
- Garfield County
- Summit, Lake and Eagle County
- CLEER program
- High Country Conservation

Prescriptive Business Rebate Programs

- Compressed Air
- Cooling
- Custom
- Data Centers
- Energy Analysis
- Energy Management Systems
- Heating Efficiency
- Lighting Efficiency
- Motors & Drives
- New Construction
- Process Efficiency
- Recommissioning
- Self-Directed Custom Efficiency
- Standard Offer
- Small Business Lighting

Custom Programs – Tim Mess

- For projects not covered by prescriptive programs:
 - ◆ Cooling - Motors/VFDs – Lighting – Boilers
- Certain programs do not have a prescriptive component:
 - ◆ Energy Management Systems
 - ◆ Business New Construction / EDA

2011 Custom Projects

Typical Electric Custom End Use Technologies

- ◆ Cell phone system amplifiers
- ◆ Anti-sweat heater controls
- ◆ Demand based ventilation controls
- ◆ Elevators
- ◆ High speed doors
- ◆ Humidification
- ◆ Destratification fans
- ◆ Insulation
- ◆ Geothermal heat pumps
- ◆ Refrigeration equipment
- ◆ Solar aerators
- ◆ Strip curtains in data rooms
- ◆ Free-cooling
 - ◆ Outside air economizer
 - ◆ Water-side economizer

Custom Process Made Easy

1. Understand your project – how does it save money
2. Thoroughly complete and submit custom application & related worksheets, including detailed equipment specification information
3. Xcel Energy will conduct a comprehensive engineering analysis to determine the project's cost effectiveness, if rebate will be paid and the amount of the rebate
4. **Project must receive preapproval prior to ordering, purchasing or installing proposed equipment**
5. Preapproval is good for 2 years
6. Project will be reanalyzed if:
 - Project costs vary by more than 10% from preapproved estimate
 - Customer's rate changes
 - Preapproval expires
 - Operating hours change
 - Quantities change