



## BUSINESS NEW CONSTRUCTION

Energy Design Assistance  
Energy Efficient Buildings



# Add energy efficiency to your new construction plans

**Business New Construction is a FREE, comprehensive approach to energy efficiency and savings for your planned building. Our program offers:**

- energy expertise to encourage energy efficiency in building design and construction practices
- design assistance supporting an integrated design process that provides various services depending on customer need

**These can include energy modeling, funding to offset the cost of design time associated with energy analysis, financial incentives to improve the cost effectiveness of energy-efficiency measures, and field verification to ensure strategies are implemented. Best of all, the entire process is FREE to Minnesota Xcel Energy customers.**

**As part of Business New Construction, we offer unique programs designed to fit the specific needs of builders, contractors and architects, including: [Energy Design Assistance \(EDA\)](#) | [EDA Enhanced](#) | [EDA Quick](#) and [Energy Efficient Buildings](#).**

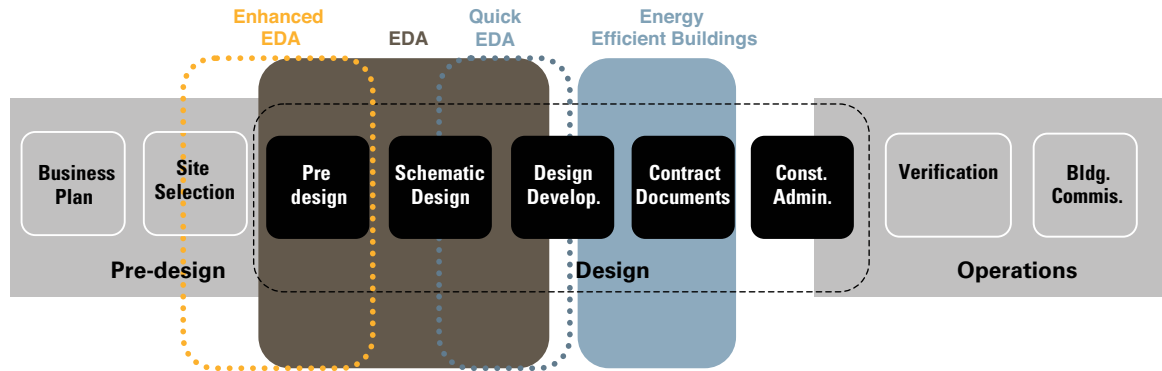


**This free, comprehensive approach to energy savings for your planned building, includes personalized computer energy modeling, which predicts energy use, suggests energy-saving strategies and projects energy-cost savings.**

**Our project site verifications help ensure that selected strategies are installed and working to save on energy bills. Recommended strategies also qualify for construction rebates, which decrease out-of-pocket costs and improve return on investment.**

# Good Timing Ensures Project Success

The best time to consider energy-efficient options for materials and equipment is before you break ground. To qualify for our free services, you must contact Xcel Energy as early as possible in the design process. This ensures your building design and equipment works well together and surpasses minimum energy saving requirements. The program supports the development of appropriate, cost-effective energy strategies and verifies that correct strategies are in place and operating.



A photograph of a modern office building interior. The space features large windows on the left side, providing a view of the outdoors. The ceiling is a mix of exposed concrete with ductwork and wooden panels with recessed lighting. The walls are also a combination of concrete and wood. There are multiple levels with wooden railings, suggesting a multi-story structure. The overall aesthetic is clean, industrial, and contemporary.

Business New Construction offers you important benefits including:

**Reduced energy costs — money that goes towards your bottom line**

**FREE energy analysis**

**Financial benefit of \$15,000-\$30,000+ for optimization and construction rebates**

# Business New Construction

can give you long-term energy and cost savings

The up-front investment you make will pay dividends over the long-term, increasing the value of your investment.

→ You can:

- Shorten payback terms and save up-front capital because the rebate you may qualify for will offset the cost of more efficient materials and equipment
- Achieve significant long-term energy savings, meaning dollars that go straight to your bottom line every month
- Reduce maintenance and premature equipment replacement costs because more efficient equipment may have a longer productive life

Save time implementing recommendations because our consulting is structured to fit into your existing process flow without schedule delays.

Visit

[xcelenergy.com/businessnewconstruction](https://www.xcelenergy.com/businessnewconstruction) for more information

## BUSINESS NEW CONSTRUCTION

# Energy Design Assistance

The Business New Construction - Energy Design Assistance (EDA) program from Xcel Energy offers energy expertise to encourage energy efficiency in building design and construction practices. EDA offers design assistance in support of an integrated design process by providing computer energy modeling, funding to offset the cost of design time associated with energy analysis, financial incentives to improve cost effectiveness of choosing energy-efficient measures, and field verification to ensure that strategies are implemented. Best of all, the entire process is free to Xcel Energy customers.

**Energy Design Assistance is our core program offering under Business New Construction. It is ideal for projects with energy savings goals in mind and enough time to integrate new ideas and strategies into their design as they merit economical benefit.**

- **Minimum Project Size\*:** 20,000 square feet (new construction, major renovations or additions)
- **Timing:** Schematic or Early Design Development
- **Energy Savings Required:** Five percent energy demand
- **Rebates:** \$400 per kW and \$0.04 per kWh plus \$5 per Dth
- **Basic Services:** Energy modeling results for efficiency strategies as selected by owner and design team, review of construction documents for inclusion of strategies, site verification and monitoring of select installed strategies

**EDA Quick is for projects that have simpler systems or extremely rapid or irregular schedules. This process combines the energy analysis part of EDA, condensed into an estimated four weeks, providing the owner with strategies selected by our team. The opportunities for consideration are limited for this option.**

- **Minimum Project Size\*:** greater than 20,000 sq. ft. (new construction, major renovation or additions)
- **Eligibility Requirement:** Eligibility will be limited to projects with a predetermined mechanical system type
- **Energy Savings Required:** Five percent energy demand
- **Rebates:** \$400 per kW and \$0.04 per kWh plus \$5 per Dth

\*Project size requirements are generalized and dependent per project.

**The EDA Enhanced option is ideal for projects with extensive energy savings goals looking to meet green certification whether that be ENERGY STAR®, Leadership in Energy and Environmental Design (LEED®), Minnesota B3, or other certifications. Projects within this track would begin review of their energy goals in preliminary designs and be willing to look outside traditional approaches to energy savings.**

- **Minimum Project Size:** 50,000 square feet
- **Timing:** Pre-design or Early Schematic Design
- **Energy Savings Required:** Minimum 30 percent energy demand savings over (Projects that do not reach the 30 percent threshold will be subject to a reduced incentive to offset the additional costs associated with early energy modeling unique to this offering.)
- **Registration Requirements:** Proof of registration with a third party verified green building certification
- **Rebates:** \$400 per kW and \$0.04 per kWh plus \$5 per Dth
- **Enhanced Services:** Basic services, plus early energy modeling, daylighting analysis and support of LEED® and MN B3 as well as other third party verified green building certifications
  - Enhanced Services must include two of the following:**
  - Massing:** create and compare alternative massing and orientation to maximize daylighting and energy-efficiency options
  - Daylighting Analysis:** Creates and compares alternate window size and placement for daylighting harvesting and sun shading options
  - HVAC Analysis:** Create and compare alternative HVAC system types and zoning options to maximize energy efficiency

\*Project size requirements are generalized and dependent per project.



# EDA Enhanced can prepare you for LEED certification and MN SB2030

**Customers interested in a certification process can participate in our Enhanced option. Meeting these EDA requirements will lay the groundwork for certification:**

- Design teams and building owners must be in the pre-design or early conceptual design stage
- Projects must be able to reach 30 percent energy demand savings over the Minnesota State Energy Code

## And meet sustainable goals

**By participating in our Enhanced option, you can be assured you'll focus on energy-efficiency in your building prior to breaking ground. The Enhanced option offers:**

- Guidance to help you choose the energy-efficiency measures that work best for your building type and which strategies have the most resource-savings potential
- Additional baseline modeling
- Partial documentation to the Green Building Certification Institute(GBCI) for Energy and Atmosphere Prerequisite 2 – Xcel Energy will complete the portion of the documentation related to energy performance, however your design team of record will be responsible for the mandatory provisions in the final submission.
- Documentation to the GBCI for Energy and Atmosphere Credit 1 for either the Design or Construction submittal AND an opportunity for up to two series of questions on the submittal to the GBCI.
- Documentation towards Minnesota SB2030 guideline requirements

**While EDA offers the opportunity to utilize our services as you go through the LEED process, we recommend you work with an accredited professional and/or your design team to focus on your sustainable goal in site, water, energy, materials and indoor air quality as well as provide submittal documentation to the GBCI.**

## BUSINESS NEW CONSTRUCTION

# energy efficient buildings

The **Energy Efficient Buildings** program is a prescriptive approach to ensure that you can qualify for rebates for new construction, major renovations and additions. By reviewing your energy savings opportunities early in design, projects can begin counting on energy savings throughout the life of the building. The Energy Efficient Building program offers you the opportunity to review energy-efficiency measures within the building and give you an idea of what types of rebates Xcel Energy can offer to help offset costs of additional conservation recommendations.

- **Minimum Project Size:** Any size building may apply to the Energy Efficient Building program, but is intended for buildings with square footage less than 50,000 square feet
- **Timing:** Prior to equipment bidding
- **Rebates:** Amounts vary depending on equipment purchased and installed non-prescriptive measures up to \$400 per kW and \$5 per Dth
- **Energy Efficient Buildings Services:** On-site verification to review installed strategies



# Business New Construction

## PROCESS TIME LINE

### STEP 1\*

Download application/calculator\* from [xcelenergy.com](http://xcelenergy.com) or request it from your account manager

### STEP 1\*

Fill out application and sign agreement, then send it to your account manager or [energyefficiency@xcelenergy.com](mailto:energyefficiency@xcelenergy.com). Also start the process of filling out the calculator as it will be requested in Step 3. If you have questions with any of these steps call 1-800-481-4700 to have our specialists help you.

### STEP 3

Xcel Energy will do an initial review of your application and send a preapproval letter, that includes the next steps, time frame and additional documents required. The requested documentation includes: completed calculator, construction documents, submittals and/or equipment specifications.

### STEP 4

Xcel Energy will work with you and your contractors to finalize the calculator and determine rebate potential.

### STEP 5

Xcel Energy will send a letter that shows a preliminary incentive amount. It will also include an updated calculator and additional energy efficiency recommendations.

### STEP 6

Approximately 2 months prior to project completion, you need to contact Xcel Energy to verify construction completion.

### STEP 7

Xcel Energy will complete an onsite verification and update rebate amount based on equipment installation.

### STEP 8

Xcel Energy will complete rebate and send in 4-6 weeks.

\* NOTE: Instructions to using the application/calculator:

Please always use the online application at [xcelenergy.com/BusinessNewConstruction](http://xcelenergy.com/BusinessNewConstruction) and follow these steps:

1. When you are prompted for a password, press cancel
2. Then, you will be asked to enable macros in the worksheet, this must be done in order to utilize the calculation tool
3. Save to your desktop as Excel 2003 file format for optimal performance

## Start your project with our calculator tool

We provide an online calculator tool that you will find at [www.xcelenergy.com/businessnewconstruction](http://www.xcelenergy.com/businessnewconstruction) where you will see prompts and directions for filling it out. When you send it to your account manager you will be on your way to project approval and implementation.

# Success Stories

## **Markim Hall, Home of the Institute for Global Citizenship Macalester College, Saint Paul, Minnesota**

Markim Hall is the first higher education building in Minnesota to earn LEED-Platinum certification, which it achieved in Fall 2009. The \$7.5 million, 17,000 sq. ft. building houses the Institute for Global Citizenship, a campus-wide initiative that builds on and expands the college's tradition of local, national and international engagement. Sustainable features include energy and water use, indoor air quality, materials used in construction and furnishings, native landscaping, innovative storm water management and public education.

### **Energy Savings Compared to Minnesota Buildings\***

<b>Estimated Annual Energy Cost Savings</b>	<b>\$12,235</b>
<b>Annual Energy Savings</b>	<b>41,371 kWh</b>
<b>Annual Heat Energy Savings</b>	<b>606 MMBTU</b>
<b>Percent Energy Peak Savings</b>	<b>51%</b>
<b>Markim Hall Rebate</b>	<b>\$3,200</b>

### **Energy efficient and sustainable features designed into the building:**

- **High insulation levels on both the roof and walls**
- **Reflective roof**
- **Daylighting**
- **Radiant Heating and Cooling**
- **Heat Recovery**
- **Displacement Ventilation**

### **Project team**

Macalester College, Xcel Energy, The Weidt Group®, Karges-Faulconbridge, Inc, McGough Companies, van Zelm Engineers, Bruner/Cott & Associates, Inc.

\*Minnesota Code: ASHRAE 90.1-1989



## Markim Hall,

Home of the Institute for Global Citizenship at Macalester College, St. Paul, Minnesota

- First higher education building in Minnesota to earn LEED-Platinum certification
- will use about 80% less energy and 45% less water than a typical campus building

## **Stearns County Service Center Waite Park, Minnesota**

The Stearns County Service Center is a 50,000 sq. ft. ENERGY STAR-rated building that houses a license center, public health and corrections offices and a multi-use conference center. Stearns County officials and GLTArchitects worked closely to incorporate cost-effective energy efficiency and sustainability into the building design.

### **Energy Savings Compared to Minnesota Buildings (Minnesota Code: ASHRAE 90.1-1989)**

<b>Estimated Annual Energy Cost Savings</b>	<b>\$51,547</b>
<b>Annual Energy Savings</b>	<b>623,936 kWh</b>
<b>Percent Energy Peak Savings</b>	<b>53%</b>
<b>Stearns County Rebate</b>	<b>\$43,000</b>

**Energy efficiency and sustainable features designed into the building:**

- **Ground Source Heat Pumps**
- **Total Heat Recovery**
- **Radiant Floor Heating**
- **High Efficient Lighting**
- **Sun Shades**

#### **Project team**

Cain Ouse Associates Inc., Xcel Energy, GLTArchitects, Stearns County, The Weidt Group®

# Winona State University Integrated Wellness Complex Winona, Minnesota

Winona State University is one of Minnesota's most recognized environmentally friendly state universities. Engineers expect the design of the Integrated Wellness Complex will reduce the building's energy use by at least 30 percent when compared with traditional facilities of its kind.

## Energy Savings\*

Estimated Annual Energy Cost Savings	\$60,579
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Annual Energy Savings	852,507 kWh
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Annual Heat Energy Savings	2,214 Dth
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Percent Energy Savings Over Code	47%
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Winona State University Rebate	\$54,478
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\*Savings based on ASHRAE 90.1-1989 standards

## Project team

Holabird & Root, Minnesota State Colleges and Universities, Xcel Energy, The Weidt Group

Energy efficiency and sustainable features designed into the building:

- Super T8 lighting fixtures and occupancy sensors
- Abundance of diffused natural light
- Premium efficient motors
- Heat recovery from return air and equipment
- Heat exchange equipment extracts heat from exhaust air





1-800-481-4700  
xcelenergy.com

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