



## NTN-Bower Manufactures Savings with Strategic Energy Management

Around the turn of the 20th century, an innovative Ohio man named R.F. Bower sought to solve a serious problem: horse-drawn carriages were losing wheels when making high-speed turns. His patented thrust-controlling roller bearing proved highly successful in keeping the wheels on and passengers safe. Today, as one of North America’s largest manufacturers of roller bearings, NTN-Bower Company continues to help vehicles, as well as industrial and farm machinery, run smoothly and safely.

### Precision. Performance. Power.

Known for the precision and performance of its roller bearings, NTN-Bower brings the same high standards to the energy performance of its campus in Macomb, Illinois, which includes corporate headquarters and two manufacturing plants.

From LED lighting upgrades to motor controls, the company has partnered with Ameren Illinois on a variety of energy-saving projects since the utility first launched its Energy Efficiency Programs back in 2008. Its efforts to create more sustainable operations earned NTN-Bower the prestigious Illinois Sustainability Award in 2017. Not resting with past successes, the manufacturer most recently began participating in the Ameren Illinois Strategic Energy Management (SEM) Offering.

“In 2018, Energy Advisor Chad Whitehead came to us and said Ameren Illinois’ SEM Offering would be a good fit for us,” says Nathan Johnson, Senior Business Unit Manager at NTN-Bower. “The SEM concept aligned with what we were already trying to do, so we didn’t need a lot of convincing.”

### Getting Strategic About Energy Savings

Ameren Illinois’ SEM program features a two-part incentive structure that rewards energy savings, as well as performance related to executive sponsorship, assessment, goal-setting and communications. At the heart of the SEM concept is a dedicated team that meets regularly to discuss ways to reduce energy usage.

“Strategic Energy Management helps organizations dig deeper to improve energy efficiency,” says Jim Dillon, Senior Manager, Energy Efficiency Operations at Ameren Illinois. “SEM empowers organizations to create lasting change in awareness, attitudes and processes. Ultimately, the goal is to embed energy efficiency into the culture and the conversation.”

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— **Jim Dillon**, Senior Manager,  
Energy Efficiency Operations,  
Ameren Illinois

### What is SEM?

Strategic Energy Management (SEM) is a continuous process of planning, implementation, and monitoring energy consumption and operational practices to provide a path to achieve energy-savings goals. The rewards of SEM can be substantial in terms of bottom line benefits and environmental impact. Learn more at [AmerenIllinoisSavings.com/SEM](http://AmerenIllinoisSavings.com/SEM).

### The Power of SEM

- » Gain a comprehensive understanding of energy use at your facility
- » Integrate energy efficiency into standard operating procedures
- » Ensure an accurate cost allocation of energy
- » Identify project opportunities
- » Reduce energy costs
- » Achieve sustainability goals

# Get Strategic About Energy Savings! Visit [AmerenIllinoisSavings.com](http://AmerenIllinoisSavings.com)

## Finding Your Footprint

Developed by the U.S. Department of Energy, the Energy Footprint Tool can track up to 20 types of energy consumption (electricity, natural gas, etc.) and 20 related relevant variables (production levels, degree days, operating hours, occupancy rates, etc.) for up to a 10-year period.

Users can create up to 10 major energy end-use groups (process areas, building areas, boiler room, etc.) which each can include up to 30 individual components (boilers, fans, pumps, lights, etc.).

The tool was specifically developed to support manufacturing, industrial, and commercial facilities that are implementing energy management plans through the U.S. Department of Energy's 50001 Ready Program or implementing energy management through the U.S. Department of Energy's Superior Energy Performance Program (SEP).

Visit [Energy.gov](http://Energy.gov) to learn more.



## Energy Efficiency — It's Good Business

Every year, the award-winning Ameren Illinois Energy Efficiency Program provides millions in incentives to help businesses, nonprofits, and public organizations reduce their annual energy costs. Incentives are available for a variety of energy-saving projects including: lighting, heating and cooling, refrigeration, motors, steam system improvements, and compressed air.

## READY TO BEGIN?

[AmerenIllinoisSavings.com](http://AmerenIllinoisSavings.com)  
1.866.800.0747

At NTN-Bower, that conversation is led by a cross-functional team — including Ameren Illinois Energy Advisor Chad Whitehead — that meets monthly to identify areas ripe for energy savings.

## Putting Energy Efficiency on the Agenda

The team includes a mix of management and front-line employees representing nearly every area of the company. Monthly meetings serve as a catalyst for energy efficiency conversations, while digital tools help management make data-driven decisions. For example, the Energy Footprint Tool from the U.S. Department of Energy highlighted excessive energy usage in the basement of the Macomb plant, which led management to shut that area down entirely.

"The Energy Footprint Tool provides a snapshot of plant energy usage in a way we've never seen before," says Johnson. "We can see exactly how much energy we are using in the plant and where. The tool allows us to break down energy usage by business unit, production line — even at the machine level."

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— Nathan Johnson, Senior Business Unit Manager, NTN-Bower

Along with detailed data, the SEM process emphasizes grassroots awareness of energy efficiency. The engineering staff was one of the key audiences targeted at NTN-Bower.

"When we can design with energy efficiency in mind from the beginning, then we don't have to go back and chase it after the fact," says Johnson. "Chad's presentation to our engineers really helped to engage that group of employees and opened their eyes to the opportunities."

In the two years since NTN-Bower began the SEM process, the team has identified and moved forward with 10 Ameren Illinois efficiency projects ranging from gas leak surveys and boiler tune-ups to unique applications of VFDs to more efficiently capture oil mist. These projects qualified for \$271,000 in incentives and generated \$175,000 in annual energy savings.

## Incentives Have Impact

Generous cash incentives from Ameren Illinois leave little room for debate on spending decisions.

"The incentives from Ameren Illinois definitely help with our return on investment, which helps seal the deal with management," says Nathan Johnson.

In the long run, energy efficiency can help manufacturers make the same part for less, giving companies like NTN-Bower an edge over competitors.

For example, NTN-Bower expected to see a huge spike in energy usage when it brought a new plant online at the Macomb location in 2013. However, previous lighting upgrades and other efficiency projects almost completely offset that spike.

"We would have seen a huge spike in energy usage were it not for our energy efficiency projects with Ameren Illinois," says Nathan Johnson, Senior Business Unit Manager at NTN-Bower. "Competition in the industrial bearing market is extremely high, so anything we can do to generate savings in our operations can have a big impact. I would most definitely recommend Ameren Illinois' SEM Offering and the Energy Footprint Tool to other businesses. You will learn a lot."



**ENERGY EFFICIENCY  
PROGRAMS**