

POWER Grant

Helping businesses lower electric usage and demand

Mann Lake Ltd. PROFILE

Business Energy Audits • Project Design Assistance • Conservation Rebates • Grants

Beekeeping product manufacturer improves efficiency, takes sting out of energy bills.

Beehives are among nature's most efficient production plants, both in form and function. Throughout history, they have been used to symbolize industry, cooperation and resourcefulness. It seems fitting that Mann Lake Ltd., a full-service manufacturer of beekeeping products and supplies would strive for the same in its own facilities.

Mann Lake Ltd. is headquartered in Hackensack, Minn., a small rural community near Leech Lake. It also operates a branch in Woodland, Calif. This growing company produces and distributes a full range of products for the worldwide beekeeping industry, from feeds, medications and pesticides to wooden frames and fully assembled hive bodies.

Over the last few years, the company has added production capacity and storage space to its northern Minnesota facilities. Its most recent expansion included construction of a new 12,000-square-foot warehouse, plus equipment

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Dwight Nelson, Maintenance Manager, Mann Lake Ltd.

upgrades to make its wood plant operations more energy efficient and cost effective.

Company personnel contacted Minnesota Power early in the planning process looking for ways to conserve energy, lower costs and maximize utility rebates.

"They are very interested in energy conservation and wanted to keep us in the loop," said Tanuj Gulati, of Energy Management Solutions, a consultant with Minnesota Power's **POWERGrant** commercial conservation program. He visited Mann Lake Ltd., reviewed plans and discussed a variety of energy-saving options related to equipment and lighting.

That dialogue helped company officials choose high performance, 28-Watt T8 lighting for the new warehouse—an option that offers increased efficiency and longer life than standard 32-Watt T8s, which were originally proposed. The new four-foot lights with reflectors provide all of the light needed in the warehouse, plus offer maintenance advantages over conventional eight-foot models.



During a recent plant expansion, Minnesota Power helped Mann Lake Ltd. identify energy-saving measures that will save the company nearly \$13,000 per year.

Learn more about **POWERGrant**.

Minnesota Power's Conservation Improvement Program
218-722-5642 or toll-free at 800-228-4966, ext. 2909

www.mnpower.com/powergrant/



POWER *Grants*

“Energizing Our Region” through Conservation Improvement



Minnesota Power’s Conservation Improvement Program (CIP) works with local leaders, businesses, community groups, other energy providers and government entities to help customers reap the economic and environmental benefits of sustainable energy savings. Minnesota Power and its partners accomplish this through research, education, evaluation and direct impact initiatives.

Find out how *POWERGrant* can help you.

Minnesota Power awards grants to commercial/industrial customers who use innovative technologies, improve manufacturing processes, undertake renewable electric energy projects, or who need project design assistance. *POWERGrant* is available for a wide variety of projects employing diverse technologies.

Here are some examples of activities or products that could qualify for Minnesota Power funding under the *POWERGrant* Program:

- New electro-technologies that lower energy costs per unit of production in a manufacturing process
- Innovative technologies that are new and underutilized in our regional marketplace
- Inclusion of energy-efficient options in the design phase of a project

Maximum annual grants are determined by a customer’s average billing demand:

Customer Demand	Maximum Grant
Less than 100 kW	\$10,000
100 to 300 kW	\$25,000
Over 300 kW	\$50,000

Minnesota Power may consider higher rebate levels.

Other Minnesota Power Products and Services

In addition to *POWERGrants*, Minnesota Power offers commercial, industrial and agricultural customers other energy efficiency products and services. These include energy audits, rebates, dual fuel, storage/off-peak services, outdoor and area lighting, and economic development assistance.

“We’re getting twice as much light using half the electricity, and it is a lot easier to change four-foot bulbs than it is to change eight-foot bulbs,” said Dwight Nelson, maintenance manager, Mann Lake Ltd. He noted the new system has multilevel manual controls so alternate lights can be switched off for even greater savings.

Other energy-saving advances made during the expansion included the purchase and installation of exterior induction lighting, dust collectors with variable frequency drives, and premium efficiency motors with variable frequency drives on production equipment throughout the wood plant. In one case, a standard motor was already purchased, but, through this process, company officials chose to return it in favor of a more energy-efficient premium model.

Combined, these conservation measures are expected to save Mann Lake Ltd. 10.9 kW demand per month and conserve 240,689 kWh in electricity per year, translating to an annual cost savings of nearly \$12,950. The company qualified for more than \$10,000 in *POWERGrant* rebates from Minnesota Power, lowering the cost of the initial investment and improving payback to less than 2.5 years.

In competitive industries, every dollar saved goes right to the bottom line. One unique challenge making cost savings even more important to beekeeping manufacturers and suppliers is Colony Collapse Disorder, a phenomenon that has devastated United States honeybee populations in recent years. Energy and resource conservation is a strategic move that lowers costs and satisfies customers with strong environmental values.

“Our products are made primarily with renewable or recycled resources, and great care is taken to use materials efficiently and reduce waste. Energy efficiency is just another part of that commitment.”

David Heem, Wood Plant Manager, Mann Lake Ltd.

Minnesota Power has been a strong partner throughout the company’s history.

“It is a great resource for energy-saving ideas that we probably would not consider otherwise,” said Eric Wade, master electrician, Mann Lake Ltd. “Just one phone call to Minnesota Power, and we have the tools we need to make informed decisions.”