



MnTAP's energy efficiency experience

The Minnesota Technical Assistance Program (MnTAP) is an outreach program at the University of Minnesota, established in 1985, that helps Minnesota businesses develop and implement industry-tailored solutions that prevent pollution at the source, maximize efficient use of resources, and reduce energy use and cost to improve public health and the

environment. MnTAP uses pollution prevention (P2) and energy efficiency (E2) practices to reduce cost and improve the efficiency of industrial processes. Working with industrial energy users impacts energy demand side, saving money and reducing air emissions of carbon dioxide, nitrogen oxides, sulfur dioxide, lead, and mercury.

Staff Qualifications

Education

- Five staff members with engineering degrees
- Five staff members trained as Certified Energy Managers

Knowledge

- Knowledge of industrial sectors or process areas
- Knowledge of high energy use sectors including mining, pulp and paper, metal casting, and food processing

Areas of Expertise

- Compressed air
- Motors/fans/pumps
- Process heat
- Process cooling
- Steam systems

Recent company impact

Company & Location	MnTAP Service	Energy Reduction*	Cost Savings	Improvements
Arctic Cat Thief River Falls	Intern	388,000 kWh	\$21,400	Reduce energy use in paint line by 10-15% and in the compressed air system by 20%
Boise Cascade International Falls	Intern	119,000 kWh	\$92,000	Compressed air efficiency and steam line insulation
General Dynamics Bloomington	Site visit	518,900 kWh	\$33,728	Compressed air efficiency, process heat, ovens
Hutchinson Manuf. Hutchinson	Site visit	36,900 kWh	\$2,100	Fixed compressed air leaks
Kraft Foods New Ulm	Intern	239,073 kWh	\$22,000	Installed boiler stack economizer, heat exchanger on ammonia gas compressor
McLean Thermal Champlin	Intern	2,400 therms	\$2,500	Low temperature conversion coatings
Rock Tenn Saint Paul	Intern	314,300 therms	\$171,000	Insulated steam lines
UPM Blandin Grand Rapids	Site visit	420,000 kWh	\$16,000	Turned off unneeded air shower, compressed air savings

Recently completed energy efficiency grants and contracts

Industry	Funding Agency	Emphasis	Actual Reduction	Cost Savings	Add'l Projected Reduction	Add'l Projected Savings
Metal Casting	US EPA Region V	Reduce waste and energy	641 MM Btu	\$4,400	329,000 kWh 9,600 MM Btu	\$108,200
Mining Pulp & Paper Metal Casting	US DOE	Reduce energy related to compressed air from Minnesota high energy use industries	4,455,204 kWh	\$186,500	9,153,571 kWh	\$448,000