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## MnTAP FRP Tips Newsletter

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Minnesota Technical Assistance Program <mntap@umn.edu>

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To: janep2@umn.edu

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Improving Energy Efficiency in FRP Operations [t](#) [f](#) [in](#)

## MnTAP Launches E3 Project in the FRP Industry

The University of Minnesota's Minnesota Technical Assistance Program (MnTAP) is beginning a program to bring E3 to Minnesota's Fiber Reinforced Plastics (FRP) industry. E3 stands for Economy, Energy, and Environment. It's a program that combines Lean tools with energy and waste assessments to maximize efficiency in all areas and help business be more competitive.

Fiber reinforced plastics is an important manufacturing sector in Minnesota. MnTAP has selected this industry as the first focus for E3 assistance based on the multi-step processes used, the opportunity for energy conservation from HVAC systems and heating, and the release of styrene and other volatile chemicals in the process. Streamlining work processes, reducing energy consumption, and optimizing material use can increase productivity, improve workplace health and safety, and reduce operating costs.

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### Did you know...

Up to 5% of the electricity used in manufacturing buildings is used for HVAC? Though this may seem like a small piece of the total energy, simple HVAC changes can often lead to big improvements without changing the manufacturing process.

One way to cut HVAC costs is through proper maintenance. Below are suggestions to achieve energy savings of 15 to 20%:

- Develop a [maintenance schedule](#) and perform regular tune-ups to keep your equipment running efficiently.
- Clean or replace [air filters](#) regularly.
- Inspect and clean the [evaporator and condenser coils](#) on your heat pump, air-conditioner, or chiller.
- Inspect [duct system](#) and piping for leakage or damaged insulation.
- Repair old valves and [steam traps](#). These are low cost parts that can waste hundreds of dollars per year.
- Consider an [energy recovery ventilation system](#) to the exhaust air stream to heat or cool the incoming fresh air.
- For large volume areas, consider installing [radiant heating](#). Radiant heating warms objects instead of the air, and requires less fuel.

This is the first in a series of newsletters providing helpful tips on how to improve YOUR economic results, energy efficiency, and environmental impact! Stay tuned for the next newsletter which will focus on strategies for saving money through energy efficient lighting.

Let us know if you are interested in getting involved in the E3 project, and send us your ideas for future newsletter topics! Contact Jane Pamperin, MnTAP Senior Engineer, at [janep2@umn.edu](mailto:janep2@umn.edu). If you are not the appropriate recipient for this email or if you know of additional people who should receive this communication, please send their email addresses to [mntap@umn.edu](mailto:mntap@umn.edu).

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