



MnTAP FRP Newsletter

1 message

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E2 Assessments Identify Opportunities to Save Energy and Money

Energy Efficiency (E2) assessments are the third type of assessment included in MnTAP's E3 in FRP program (in addition to Lean and P2 assessments). The first step of an E2 assessment is a thorough review of energy bills. We will graph your gas and electricity bills from the last two years to look for any trends or unexpected changes. While gas bills are usually relatively simple, electricity rates are commonly based on a variety of factors, including a simple energy charge for the amount of energy used, a demand charge (which can vary seasonally), power factor adjustment charge, resource adjustment fees, service fees, conservation improvement program fees, and sales tax. Your bill is determined not only by how much electricity you use, but also when you use it.

The next step in an E2 assessment is to identify all the processes and equipment that use energy. This involves collecting information such as horsepower and efficiency to determine how much energy is being used. When the energy use is unknown, MnTAP engineers have equipment to measure the usage. Some common energy opportunities that may be identified include oversized motors, lighting left on when it is not needed, leaking or inefficient compressed air systems, and wasted heat that could be recovered and used for heating or process needs.

E2 assessments often identify significant opportunities to save energy and money! Businesses that have not previously looked at energy efficiency are likely to save 10 to 20% off their energy bill from addressing low-capital projects.

Did you know...

50% of the acetone you bring into your facility is lost to evaporation? That is literally money flying out the window!

Why not acetone?

- **Fire!** Acetone presents a significant fire hazard and moderate explosion hazard when exposed to heat and flame.
- **Hazardous Waste!** Acetone soaked rags are treated as hazardous waste and will cost you additional labor for special handling and possibly additional disposal fees.
- **Employee Health!** While short term exposure can mimic intoxication with some eye and throat irritation, long term exposure can lead to kidney damage, respiratory issues, and reproductive problems.

Other alternatives:

A local FRP company, Salo Manufacturing, switched from acetone to Acrastrip, a water based solvent, and saved \$1,690/year while eliminating 3,570 lbs/year of VOC's and 900 lbs/year of hazardous waste.

More Alternatives:

With the OSHA mandated change in the Safety Data Sheets, this is a good time to review and update your chemical inventory. Are you using the best products available? Many products have been created and reformulated in recent years due to the demand for more

effective greener alternatives. Check out these resources:

- Products on the Design for Environment (DfE) [Labeled Products and Partners List](#) are made with the safest possible ingredients.
- Find out if the chemicals ingredients listed on the SDS are on the DfE-Labeled Products [Safer Chemical Ingredient List](#).
- Search for better products for a specific application on [TURI's Cleaner Solution Database](#). They have tested products for you!
- Still can't find what you need? Talk to your chemical supplier, or companies like [Chemical Marketing](#) or [Ecolink](#) that offer custom chemical blends for your specific needs.

This is the fifth 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 water conservation.

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 Paulson, MnTAP Senior Engineer, at 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.

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