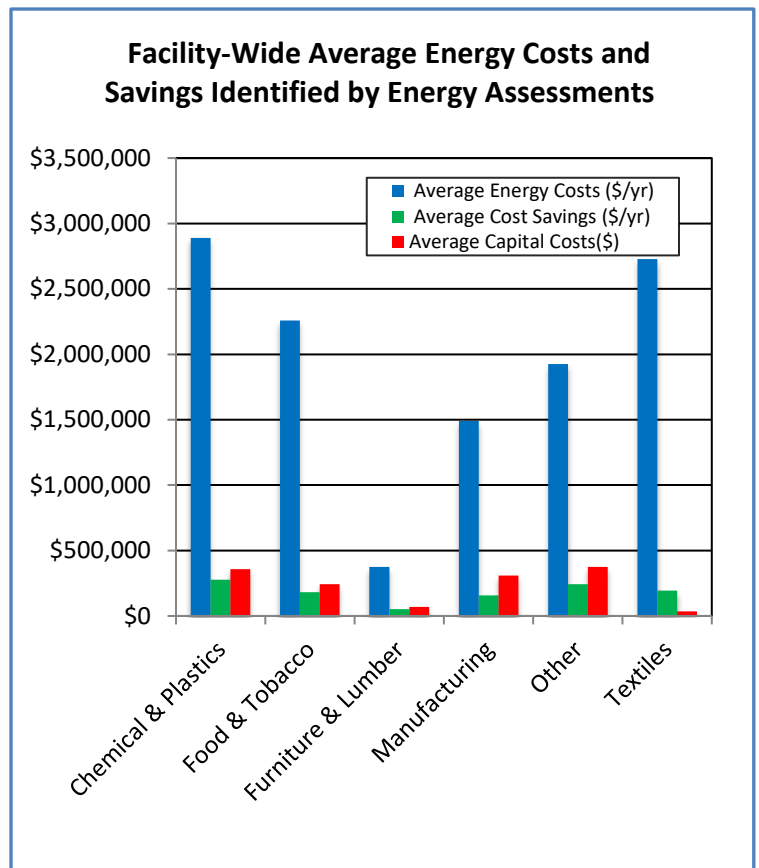
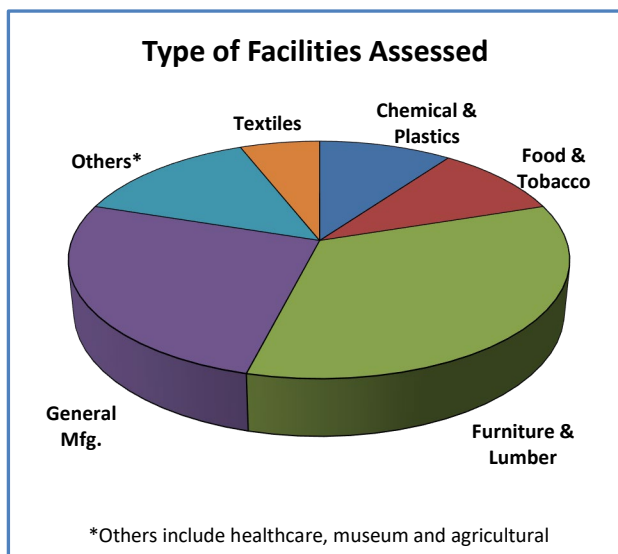


NC Industries Use Less Energy, Save Money and Decrease Air Pollution

Energy efficiency strategies are some of the most cost-effective ways to reduce the commercial and industrial sectors' environmental impacts. Reduced energy use provides businesses with a competitive advantage that helps reduce operating costs as well as air emissions. The NC Division of Air Quality Energy Efficiency program works with facilities outside of the regulatory framework by encouraging voluntary actions to reduce energy use, energy costs and air pollution emissions.

How do you become more energy efficient and environmentally sustainable? Conduct an energy assessment of your facility. An **energy assessment** is a survey of energy flows and costs associated with a building, process or system in order to identify potential reductions in electricity and fuel use. Typical recommendations include purchasing energy efficient equipment, reducing air pressures, tuning boilers, repairing leaks or simply changing standard procedures. An assessment report is generated that helps you prioritize projects based on cost savings, capital investment and payback periods.

Beginning in 2011, North Carolina State University (NCSU) and Waste Reduction Partners (WRP), under contracts with the DAQ, **conducted 51 facility-wide energy assessments**. The assessments identified energy efficiency measures for each facility and quantified reductions in energy use, energy costs and air pollution. The results are summarized below.



Cutting Energy Costs
 Payback periods can be realized in one month for simple measures, such as fixing leaks in air lines, to several years, for capital investments in energy-efficient.

Air Pollution Reductions Identified by 51 Facility-Wide Energy Assessments

| Industry | SO ₂ ton/yr | NO _x ton/yr | GHG as CO ₂ e ton/yr |
|------------------------------|------------------------|------------------------|---------------------------------|
| Chemical & Plastics | 25 | 10 | 12,500 |
| Food & Tobacco | 45 | 21 | 10,000 |
| Furniture & Lumber | 20 | 20 | 5,000 |
| Manufacturing | 50 | 11 | 13,000 |
| Textiles | 20 | 10 | 6,000 |
| Others | 2 | 6 | 4,200 |
| Potential Reductions | 160 | 80 | 50,700 |
| North Carolina Total | 135,500 | 63,000 | 2,700,000 |
| Reductions as % of NC | 0.12% | 0.13% | 1.88% |

Reducing Air Pollution
 Implementing cost effective energy efficiency measures at just 51 facilities could make a real difference in reducing emissions of reductions in sulfur dioxide (SO₂), nitrogen oxides (NO_x) and greenhouse gases. Note, these reductions include direct impacts of reduced fuel usage at a plant and indirect impacts of electricity generation at a power plant.