



Fluid System Optimization Study

Save money and improve your bottom line

Improve your facility's operations with our Fluid System Optimization program from Xcel Energy. Our study incentives and project rebates can help you reduce your energy costs, improve productivity, enhance system knowledge and increase profitability for a variety of systems.

Eligible systems		
Pump systems	Blower systems	Hydraulic systems
Fan systems	Vacuum systems	Compressed air – demand

Study considerations

Studies will address current conditions and operating parameters, measure flow, pressure and power, and estimate future process production needs. Scope is not limited to any one factor, but can include a variety of factors depending on impacted systems. Some possible considerations for the various systems may be:

Fan and blower systems

- Equipment selection – size and type, degraded fans, incorrectly sized fans, optimal fan types, alternate fan drive options, and obstructed inlets.
- Drive selection (belts, sheaves, alignment, etc.)
- Control method (dampers, variable pitch blades, variable speed drive, etc)
- System configuration (to address insufficient air delivery, unnecessary pressure drop, etc.)
- Identify duct system leaks and improvements, repairs can save significant operating costs not just on your fan system but from your HVAC systems affected by leakage into conditioned air spaces.
- Leakage or waste reduction
- Identify the optimal method of controlling fan or blower systems with variable loads due to ambient conditions, occupancy, and production demands, saving you energy on both fan/blower and HVAC systems.

Pump and hydraulic systems

- Identify the optimal choice of pump used in your system based on fluid properties including acidity/alkalinity, operating temperature, vapor pressure and viscosity.
- Analyze your design pump capacity to accurately size your piping system, determine friction head losses, construct system curves and select a pump and drive motor.
- Consider important environmental considerations that affect your system including ambient temperature and humidity, elevation above sea level, and whether the pump should be installed indoors or outdoors.
- BEP – Best efficiency point
- Pump selection (size and type)



We're here to help. Ask us how we can save you money with Xcel Energy rebates and incentives.

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- Control method (recirculation/bypass lines, variable speed drive, etc.)
- Pump configurations (parallel operation for multiple-pump systems)
- Pipe and other system component configuration
- Waste reduction

Compressed air demand study and vacuum systems

- Analyze your optimal compressed air/vacuum needs by examining what your uses are, why they are used, when air is used and your future use outlook.
- Determine what pressure/vacuum is needed on your system and why.
- Compressor/vacuum pump selection (size and control type)
- Clean up equipment selection (filters, dryers, and storage)
- Control method
- Multiple-compressor/vacuum pump configuration and control
- Pipe and other system component configuration (reduce pressure drop between equipment room and end-use)
- Waste reduction (high to low pressure conversion, pneumatic to electric conversion, open blowing, etc.)



Funding plus bonus rebate

Study funding up to 75 percent of study cost PLUS additional BONUS up to 100 percent* of study cost when you implement projects identified in your study.

*Bonus potential will be outlined with your study measures upon study approval.

Additional compressed air study funding and rebates

We also offer study funding and rebates to help offset the cost of analyzing and upgrading compressed air supply-side equipment. With a pre-approved study, you can earn up to 100 percent of the study costs with you repair 75 percent of identified leaks.

Rebates for supply-side measures

Use our prescriptive and custom rebates to help offset the costs of purchasing more efficient equipment of making process improvements within your compressed air supply equipment.

Rebates new – VSD air compressor 10 to 49 hp	\$100/hp
Early retirement – VSD air compressors 10 to 49 hp	\$100/hp + \$3,000
No loss air drains	\$200/each
Mist eliminators	\$3/rated CFM
Cycling dryers	\$2/rated CFM
Dew point demand controls	\$1,500/each
Motors and drives	See Motor and Drive Efficiency rebates for more details

Contact your Xcel Energy account manager, or call our Business Solutions Center at **855.839.8862** for all the details.

This program’s rules, requirements and offer are subject to change at any time. The rebate program will provide up to 60 days notice of cancellation. Changes or notifications will be posted on xcelenergy.com/FSOStudy.