PNM Business Energy Efficiency Programs

Compressed Air Systems

Upgrade and Save

There are many ways to gain efficiencies in compressed air systems today. By making basic changes, the efficiency of a typical compressed air system can be improved by 20% or more. To help you install upgrades that can save energy and money for your company, PNM offers custom rebates of $0.08 per calculated annual kWh saved.

Energy Efficiency Measure	Potential Energy Savings
Reduce overall system requirements	20%
Match compressor size to load	3%
Improve compressor controls	10%
Improve compressor components	5%
Operation and maintenance	10%

PNM Business Energy Efficiency Programs offer rebates that lower the cost of upgrading to new energy efficient equipment. The rebate can reduce project costs and shorten your project payback period. Depending on the scope of the project, hours of operation, and size of facility, you could see significant savings.

Don't leave money on the table!
Reserve rebates for your facility today.

Energy Profile

A busy Albuquerque-area business running three shifts wanted to increase productivity and reduce energy consumption — two goals that can be hard to meet at the same time. The company was operating its compressed air system more than 6,000 hours per year, so finding savings there was a good place to start. Upgrades to the compressed air system included the installation of a larger receiver tank and a new compressor with a variable speed drive. The $100,000 project is expected to save the company more than 300,000 kWh per year. Those annual energy savings coupled with a rebate from PNM of nearly $24,000 will help the project pay for itself in less than two years.

Equipment Facts

From running simple air tools to operating complex pneumatic controls, compressed air systems are at the heart of today's commercial and industrial processes. Almost three quarters of all manufacturing facilities in the US use compressed air. Powering an air compressor system is the most expensive part of owning and operating one. Energy consumption accounts for 75% of total operating costs.

Unfortunately, that energy is not used very efficiently:

- A significant amount of the energy used to run a compressed air system is lost – some to motor and drive efficiency losses, most to the heat of compression.
- Of the useful energy delivered to the facility as compressed air, more than half goes to waste.

PNM
Powering New Mexico, Together

How It Works

Compressors are most efficient when operating fully loaded. To trim costs and reduce waste, match system supply with demand and cut usage back as far as possible. Simply put, the more pressure you have, the more energy you use. For every 2 points in pressure drop, there is an approximately 1% reduction of electricity.

Why Improve Energy Efficiency?

1. Cuts operating and maintenance costs and improves profitability.
2. Savings can help finance future improvements.
3. Improves customer and staff satisfaction.
4. Distinguishes your business as caring about environmental sustainability.
5. Helps you remain competitive in an ever-changing business landscape.

Good Neighbor Fund

The PNM Good Neighbor Fund is a program that helps income-qualified New Mexico families pay their electric bills during times of hardship. The fund is supported by donations from PNM customers, employees, and shareholders, and has supported thousands of households across the state. You can make a meaningful impact by donating all or a portion of your Energy Efficiency Program incentive to the Good Neighbor Fund. Simply submit your energy efficiency project through PNM's Business Energy Efficiency Program Online Application and choose to allocate all or a portion of your incentive to the Good Neighbor Fund. It's a simple way to give back while supporting your sustainability goals.

Check for Leaks

Thirty percent of compressed air is lost because of leakage, so system optimization should start with leak repair in order to size the system correctly. As leaks will frequently reappear in six months, continual maintenance is necessary.

Add Storage

If the compressed air system is sized for peaks, the compressors are idle most of the time, operating inefficiently and inflating energy demand. One end use with a high-volume, intermittent application can upset the pressure profile, forcing the system to overcompensate. Instead, design storage into the package. Properly designed compressed air storage allows the system to meet its peak demands while minimizing compressor use and pressure.

Adding receiver tanks at the far end of the system can overcome distribution limitations for distant equipment, and allow a lowering of the PSI of the system, significantly improving efficiency.

Energy Calculation Resources

The DOE's Industrial Technologies Program (ITP) has developed software to help compressed air users analyze energy use and energy system savings opportunities for their facilities. AIRMaster+ assesses the supply-side performance of compressed air systems using plant-specific data. Results include estimates of potential savings gained from various energy efficiency measures and related payback periods.

Transportation Electrification Program

The PNM Transportation Electrification Program offers rebates and resources that make it simple for you to install qualified EV chargers at residential and commercial locations. Visit ev.pnm.com for the latest information on charger qualifications, installation assistance, and rebates available.

Learn More

Visit PNMenergyefficiency.com
Call 505-938-9400
Email energyefficiency@pnm.com

Find a Contractor

Visit PNMenergyefficiency.com/findacontractor to view a complete list of Program Authorized Contractors.

PNM®
Powering New Mexico, Together