

# COMPRESSED AIR STUDY WORKSHEET

January 1, 2021 – December 31, 2021

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## PROGRAM OVERVIEW

The ComEd® Energy Efficiency Program Compressed Air Study is available to qualifying customers within the ComEd service territory. The goals of this program are to help you identify opportunities to improve the efficiency of your facility’s compressed air system and reduce energy costs without adversely affecting system operations. In addition, ComEd provides a one-time incentive payment of \$0.12 per annual kWh saved after study recommendations are properly implemented and verified. However, repairing air leaks does not qualify for the one-time incentive. Eligible annual kWh savings are determined through final measurement and verification activities. The total incentive will not exceed 100 percent of the total eligible implementation costs and 100 percent of the total incremental costs for improvements recommended in the study.

## MINIMUM CUSTOMER COMMITMENT

As stated in the terms and conditions of the Industrial Systems Study application form, if accepted into the program, the customer agrees to:

- Provide access to the facility and provide time for the appropriate facility personnel to interface with the service provider during all phases of the project.
- Provide and assist with reporting and collection of information pertaining to the operation of the compressed air system during all phases of the project.
- Spend at least \$15,000 on the implementation of measures identified through the study, with an estimated total project simple payback of 1.5 years or less based upon energy savings and estimated cash incentives.

The Compressed Air Study will be considered complete when the customer commitment (listed above) is met, and the mutually accepted study recommendations are properly implemented and verified or 120 days from the customer receiving the final version of the investigation study report. The customer may submit a request for an extension if additional time is needed to complete implementation.

Energy efficiency measures recommended during the study but not implemented in the initial project may be eligible for incentives through other ComEd Energy Efficiency Program offerings. The program team is available to assist with any additional incentive paperwork.

Facility Name:

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## FACILITY GENERAL DESCRIPTION

Briefly describe the type of facility, including square footage and hours of operation.

Briefly describe past energy efficiency projects or studies completed at the facility.

Briefly describe any currently planned energy efficiency, renovation or equipment replacement/upgrade projects for the facility.

Are there any scheduling issues that could affect the compressed air study or subsequent measure implementation (e.g., major renovations or equipment replacements/upgrades)?

## FACILITY STAFF

Please identify key individuals responsible for the operation of the facility and state how long they have held their current positions. Also indicate individuals who will act as a part of the owner's project team by indicating whether they are able to assist.

NAME	POSITION	YEARS IN POSITION	FACILITY RESPONSIBILITIES	ABLE TO ASSIST? (Y/N)

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## MANAGEMENT

**What are the top two barriers to improving the energy efficiency of the compressed air system?**

- |   |  |
|---|--|
| <input type="checkbox"/> Not enough staff time<br><input type="checkbox"/> Lack of budget for efficiency improvements<br><input type="checkbox"/> Capital priorities elsewhere<br><input type="checkbox"/> Paybacks are too long<br><input type="checkbox"/> Primary focus is on production | <input type="checkbox"/> Lack of accountability for system energy costs<br><input type="checkbox"/> Lack of information about opportunities<br><input type="checkbox"/> Lack of in-house technical expertise<br><input type="checkbox"/> Lack of training<br><input type="checkbox"/> Management approval<br><input type="checkbox"/> Other: _____ |
|---|--|

Please list all air compressors and system components that are currently located at your facility. Add additional pages as necessary.

## AIR COMPRESSORS

ID NUMBER	MANUFACTURER/ MODEL	HP	COMPRESSOR TYPE (e.g., Scroll, Screw, Reciprocating, Centrifugal)	CAPACITY CONTROL MODE (e.g., Load/Unload, VFD, Inlet Modulation, Blow-off)	AIR OR LIQUID COOLED	BACK-UP (Y/N)	AGE (Years)	ANNUAL OPERATING HOURS
1								
2								
3								
4								
5								
6								

## DRYERS

MANUFACTURER/MODEL	ASSOCIATED COMPRESSOR ID NUMBER(S) (From table above)	TYPE (Desiccant/ Refrigerated/ Cycling)	STATUS (Op/Back-up)	AGE (Years)
1				
2				
3				
4				

## STORAGE

LOCATION	ASSOCIATED COMPRESSOR ID NUMBER(S) (From table above)	SIZE (Gallons)	WET OR DRY
1			
2			
3			
4			

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MAJOR COMPRESSED AIR LOADS				
LOAD	QUANTITY	PRESSURE RANGE (psig)	FLOW OPERATION (CFM)	SCHEDULED HOURS AND DAYS OF OPERATION
1				
2				
3				
4				
5				
6				
7				
8				

Outline the MINOR compressed air loads (e.g., regulators, air motors, tank sparging, air-operated tools).

Describe the compressed air system operating schedule at the facility.

Is a control system used to shut compressors OFF when not in use? If not, how is this done?

Describe the compressed air system controls at the facility (cascading with no control, central control system, or manual control). Are there any special requirements that would prevent changing the control strategy or usage of compressed air if recommended in the study?

Does the compressed air system trend data? If so, what data points are trended (e.g., pressure, flow, dewpoint, kW, inlet damper percentage, blowoff)?

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How is compressed air system maintenance currently handled at the facility? Maintenance service contract, regular maintenance performed internally, or little to no maintenance with repairs as needed?

Describe the compressed air leak management schedule at the facility. When was the most recent leak detection survey completed?

What is the system pressure setpoint? Do most of your end-uses require air at this pressure? Do you have trouble maintaining this pressure or have significant pressure fluctuations at end-uses?

What is the approximate system capacity (CFM)? Is there air storage near large end-use items?

What quality of dry air is needed? Is there a dew point requirement?

Is there a potentially 'flammable' environment at the facility (i.e., petroleum storage) that requires the use of air-operated tools over electrically powered tools?