



# The Benefits of a Targeted, Prescriptive Approach to Compressed Air Technologies

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## Overview

- Compressed air measures are often complex and “custom” in nature.
- Trade Allies and customers like knowing an incentive they can “bank” on
- Prescriptive processing reduces transaction steps and greater customer participation

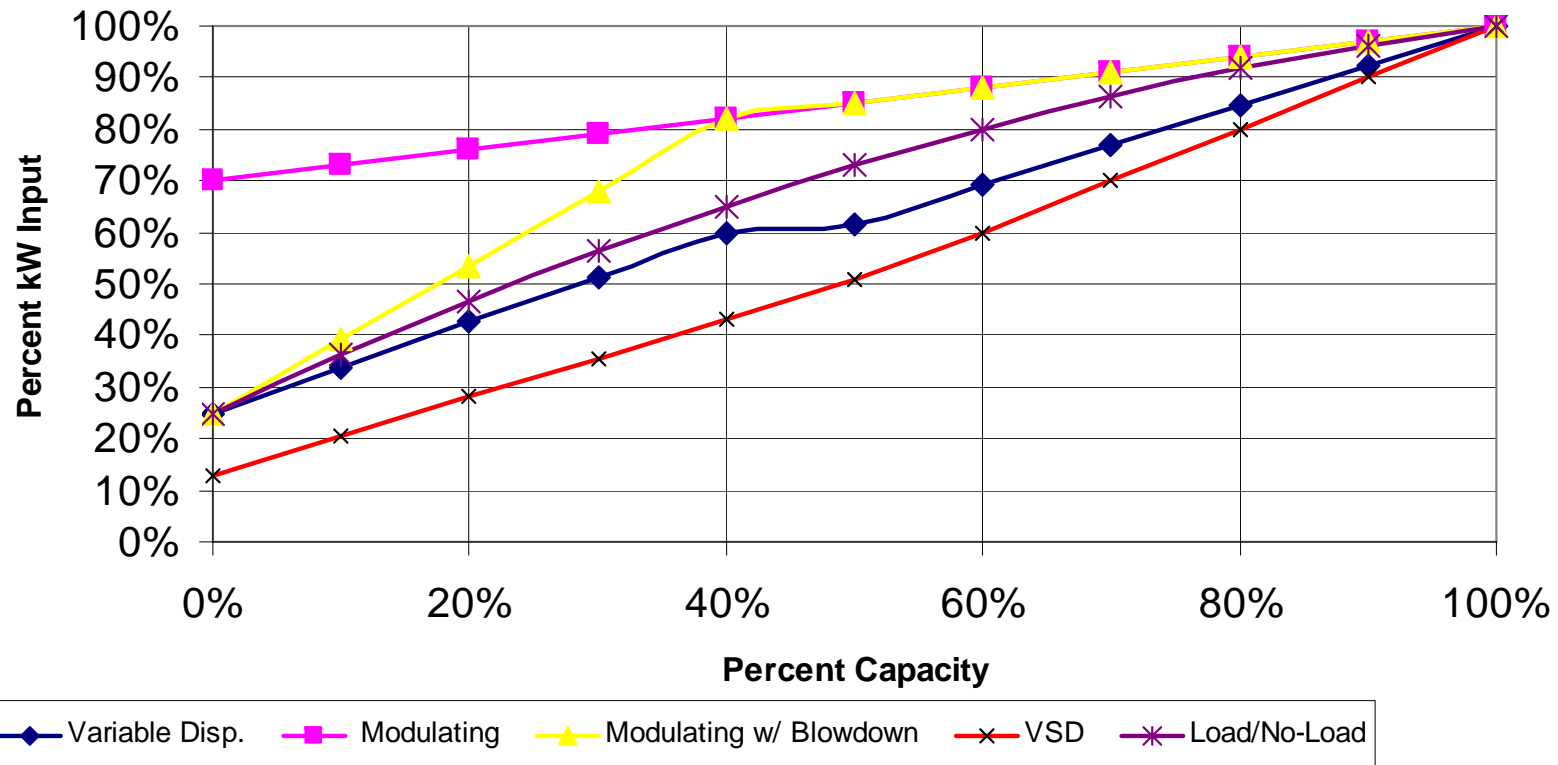
# Introduction

- We Energies' C/I Programs
  - **Custom**
  - **Prescriptive**
  - Request for Proposal (RFP)
  - New Construction
  - Hard-to-Reach Commercial and Non-Profit

## Introduction (cont.)

- Identifying baseline for existing compressors is difficult, due to a variety of control schemes. Primary options are;
  - Inlet Modulation
  - Load/No-Load (on-line/off-line)
  - Variable Displacement
- Could not find a good baseline study of what controls existing compressors incorporate

# Typical Air Compressor Performance Curves



## Contemplating the Move to Prescriptive

- Researched other programs, but at the time very few had prescriptive VSD compressor rebates
- Due to complexity, deemed savings is too difficult. Therefore, measure would have to be a hybrid (prescriptive incentive with custom calculation)
- Sought trade ally input

# Overcoming the Barriers

- Incentive form gathers existing and new information.

# Overcoming the Barriers (cont.)

## VSD-EQUIPPED AIR COMPRESSOR INCENTIVE APPLICATION

Measure	Install Date	Quantity Installed	HP Installed	Incentives per HP	Incentive (Qty x HP x Incentive)
VSD Air Compressor #1				\$70	\$
VSD Air Compressor #2				\$70	\$
VSD Air Compressor #3				\$70	\$
<b>Total Incentive:</b>					

Air Compressor	Rated HP, CFM, PSI, And Annual Hours of Use	Use Before	Use After	Compressor Type	Control Type
#1 Mfr: _____ Model #: _____ Approx. Age: _____	_____ HP _____ scfm @ _____ psi _____ Annual Hours of Use	<input type="checkbox"/> Lead Compressor <input type="checkbox"/> Trim Compressor <input type="checkbox"/> Back-up	<input type="checkbox"/> Removed <input type="checkbox"/> Lead Compressor <input type="checkbox"/> Trim Compressor <input type="checkbox"/> Back-up	<input type="checkbox"/> Reciprocating <input type="checkbox"/> Screw-oil Flooded <input type="checkbox"/> Screw oil-less <input type="checkbox"/> Centrifugal <input type="checkbox"/> Two-stage <input type="checkbox"/> Vane <input type="checkbox"/> Other _____	<input type="checkbox"/> Load/no load <input type="checkbox"/> Inlet Mod. dampers <input type="checkbox"/> Other _____
#2 Mfr: _____ Model #: _____ Approx. Age: _____	_____ HP _____ scfm @ _____ psi _____ Annual Hours of Use	<input type="checkbox"/> Lead Compressor <input type="checkbox"/> Trim Compressor <input type="checkbox"/> Back-up	<input type="checkbox"/> Removed <input type="checkbox"/> Lead Compressor <input type="checkbox"/> Trim Compressor <input type="checkbox"/> Back-up	<input type="checkbox"/> Reciprocating <input type="checkbox"/> Screw-oil Flooded <input type="checkbox"/> Screw oil-less <input type="checkbox"/> Centrifugal <input type="checkbox"/> Two-stage <input type="checkbox"/> Vane <input type="checkbox"/> Other _____	<input type="checkbox"/> Load/no load <input type="checkbox"/> Inlet Mod. dampers <input type="checkbox"/> Other _____
#3 Mfr: _____ Model #: _____ Approx. Age: _____	_____ HP _____ scfm @ _____ psi _____ Annual Hours of Use	<input type="checkbox"/> Lead Compressor <input type="checkbox"/> Trim Compressor <input type="checkbox"/> Back-up	<input type="checkbox"/> Removed <input type="checkbox"/> Lead Compressor <input type="checkbox"/> Trim Compressor <input type="checkbox"/> Back-up	<input type="checkbox"/> Reciprocating <input type="checkbox"/> Screw-oil Flooded <input type="checkbox"/> Screw oil-less <input type="checkbox"/> Centrifugal <input type="checkbox"/> Two-stage <input type="checkbox"/> Vane <input type="checkbox"/> Other _____	<input type="checkbox"/> Load/no load <input type="checkbox"/> Inlet Mod. dampers <input type="checkbox"/> Other _____



## Overcoming the Barriers (cont.)

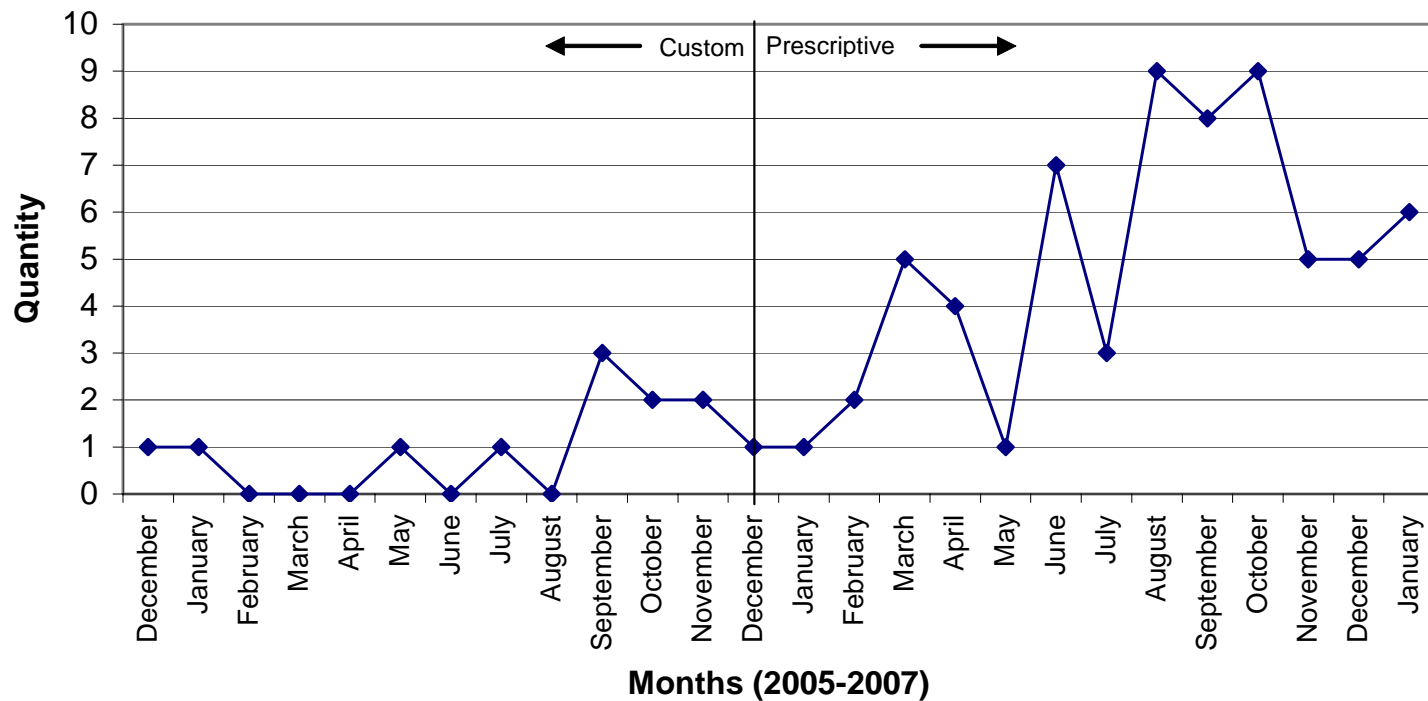
- Submit CAGI sheets at 100 psi
- Compressors with pressures <145 psi are eligible
- Horsepower cannot exceed 125% of existing unit
- Water-cooled compressor must replace another water-cooled.

## Overcoming the Barriers (cont.)

- No back-up compressors or redundancy
- Only new equipment is eligible (no used equipment)
- Replaced equipment must be removed
- One VSD per project per location
- Prior approval needed for new construction projects

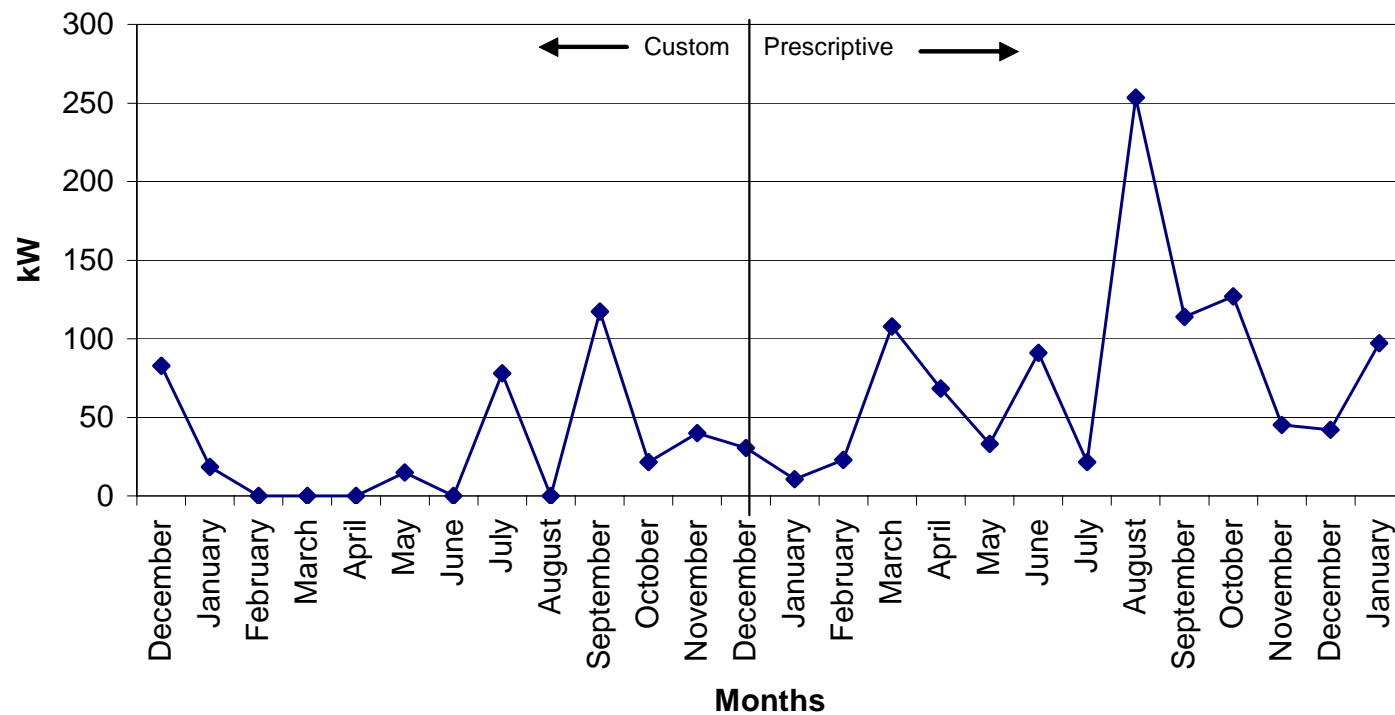
# Results

- Increase in customer participation



# Results

- Increase in kW savings per month



## Conclusions

- Greater participation by trade allies and customers with prescriptive incentives
- Larger amounts and steadier flow of kW.
- As implementers, we need better baseline data concerning compressor control types
- Compressed air market needs a compressor certifications, like ARI, NEMA, ANSI, etc.
- Engaging in feedback from product trade allies is important.



# Questions?

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