

# Ventilation Control System Multiphase Implementation Approach Driven by Safety and Production

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## ABSTRACT

Ventilation Controls Systems (VCS), also commonly referred as Ventilation-on-Demand (VOD) systems, have historically been offered to the mining industry with the initial promise of reducing electrical energy consumption. They have been suggested, or attempted, as step-change implementations at mine sites with no visualization or control to provide fully-utilized asset-tagging-based or environmentally-driven system. Operationally throughout for life of mine, energy savings alone as the VCS/VOD driver are challenging to sustain given typical production incentives. Where site-specific KPIs include EBITDA, they are more heavily influenced by higher production output than energy savings. The step-change implementation, in practice, is difficult to achieve due to the complexity of the logistics, the learning curve, and the maintenance required. Industry is beginning to shift the VCS/VOD energy-savings driver focus, diversifying it into three pillars: safety, production, and energy savings. The trend now is away from step-change implementations, with industry preferring low-risk, multi-phase, and multi-year projects. Herein, we suggest a multiphase approach, driven by these the three pillars, to maximize production versus the perceived goal of maximizing energy savings. It is expected that this approach aligns better with existing mine management methodologies and KPIs, with the potential to result in more realistic operational levels of implementation.

Key words: VCS, VOD, health and safety, production, energy savings