

I am your compressed air guide - Developed by OEH & Northmore Gordon

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It is a guide developed jointly by The Office of Environment and Heritage (OEH) and Northmore Gordon, aimed at businesses that use compressed air in their operations, particularly those with multiple compressor systems. The guide provides practical assessment methodology aligned with Australian Government energy efficiency frameworks, helping organisations investigate compressed air system performance before making purchasing or upgrade decisions. It emphasises understanding actual operational requirements rather than allowing equipment specifications to drive investment choices.

Publication context: This article reflects its publication date. Market prices, program rules, reporting duties and deadlines may have changed. Confirm current official guidance before making a decision.

Developed by The Office of Environment and Heritage (OEH) and Northmore Gordon - If you use compressed air in your operations, particularly multiple compressor systems, we recommend this guide for your business.

Using this guidance

Check the site's operating conditions, data quality, project stage and current program settings before turning the dated discussion into a scope or investment decision.

Related guidance

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What is the compressed air guide referenced on this Northmore Gordon page?

It is a guide developed jointly by The Office of Environment and Heritage (OEH) and Northmore Gordon, aimed at businesses that use compressed air in their operations, particularly those with multiple compressor systems. The guide provides practical assessment methodology aligned with Australian Government energy efficiency frameworks, helping organisations investigate compressed air system performance before making purchasing or upgrade decisions. It emphasises understanding actual operational requirements rather than allowing equipment specifications to drive investment choices.

Why should compressed air system assessment precede equipment purchases?

A compressor purchase should follow operational assessment rather than define it. Beginning with required service—which tasks need compressed air, at what pressure and quality, and during which periods—ensures investment decisions reflect actual needs. This approach prevents over-specification, reduces capital expenditure, and establishes a foundation for measuring whether improvements deliver expected benefits. Equipment-led decisions often ignore optimisation opportunities within existing systems, leading to wasted investment and ongoing inefficiency.

What does 'unnecessary demand' mean in compressed air systems, and why investigate it?

Unnecessary demand refers to compressed air usage for tasks that do not require the resource or can be performed without it. Government guidance identifies this as a key investigation area because eliminating unnecessary consumption costs nothing to implement yet can significantly reduce system load. Examples include using compressed air for cleaning when mechanical alternatives exist, or maintaining pressure to equipment sections during shutdowns. Addressing unnecessary demand should precede pressure adjustment or equipment replacement to avoid over-sizing replacement compressors.

How do leak surveys and power profiles serve different purposes in compressed air assessment?

A leak survey identifies points of unintended air escape and their location within the system, useful for prioritising repair work. A power profile measures total system energy consumption over time, revealing when peak demand occurs and how the compressor operates under different conditions. Neither alone describes the entire system: leaks may be intermittent or location-dependent, while power profiles show aggregate effect without identifying causes. Combining both types of evidence provides a more complete operating picture for identifying and prioritising interventions.

What questions should guide comparison of different compressed air improvement options?

Five key questions form a commissioning brief: Can production tasks still meet required standards if unnecessary demand is reduced? What evidence shows the effect of leak repair under comparable operations? How does the whole compressor group respond to sequencing or control changes across its operating range? What pressure is actually required at critical users, including system losses? What demand remains after other feasible changes, to assess replacement sizing correctly? These questions ensure options are compared on a common basis rather than treated as independent savings that could be added together.

Why is documenting the sequence and boundary critical when proposing multiple compressed air improvements?

When leak repair and compressor replacement are both proposed, replacing without accounting for reduced demand after repairs can overstate savings and lead to oversized equipment. Documenting which estimate assumes the original full load versus post-repair demand prevents double-counting and ensures accurate financial comparison. This sequencing also affects implementation planning: repairs typically precede replacement, and their confirmed effect should inform replacement sizing. Transparent boundary documentation ensures the investment case and measurement plan align with actual project changes.

What should a compressed air assessment report include to support implementation and verification?

Request description of operating scenarios, measured evidence, proposed changes, and financial comparison assumptions. Include a plan to confirm performance after implementation, especially where production changes could obscure results. For certificate support, assess the site and scheme method separately: energy-saving opportunity does not automatically establish evidence standards, timing, or eligible quantities for certificate claims. Clear specification of measurement boundaries, baseline conditions, and post-implementation review procedures enables both performance management and

potential scheme compliance.

How does Northmore Gordon approach compressed air optimisation as part of broader energy assessment?

We offer compressed air assessment as part of our energy optimisation service, combining engineering audit with implementation support and performance verification. We apply a six-stage delivery approach: assess current system performance through audits and measurement; build the business case for improvements; capture available funding or certificate value; deliver implementation with measurement planning; procure relevant equipment or services; and perform ongoing monitoring. Initial engagement should identify your operational requirements, site constraints, decision deadline, and whether optimisation, feasibility study, or investment case is the priority need.