# Case study: Compressed air

Find out how a processing plant using an Environmental Upgrade Agreement (EUA) to finance an energy efficient compressed air system determined that they would be better off by about $90,000 over 15 years if they invested in an energy-efficient system.

## Situation

A processing plant is looking at replacing their existing air compressor with a new unit. The compressor runs 8,400 hrs. p.a. at an average load of 50%. They have the option of purchasing a standard screw compressor (55kW) with load/unload type of control or an energy-efficient VSD compressor (55kW) with higher efficiency components.

## How does the energy-efficient (EE) system compare to the standard system?

| Equipment type | Standard | EE |
|---|---|---|
| Cost to install ($) | $27,000 | $50,000 |
| Operation and maintenance costs ($ p.a.) | $6,300 | $4,800 |
| | | |

| | | |
|---|---|---|
| Electricity use (kWh p.a.) | 333,667 | 256,667 |
| Equipment life (years) | 15 | 15 |
| Electricity cost reduction in first year from the system ($) | | $15,400 |
| Simple payback period for the system (years) | | 4.7 |
| Simple payback period for the system (years), with marginal capital[1] (years) | | 2.2 |

| **Item** | **NPV** |
|---|---|
| Standard | -$494,742 |
| EE system | -$404,640 |
| Difference | $90,102 |

**Finance option selected:** Environmental upgrade agreement (EUA).

The company decides to seek an EUA to finance their energy efficiency compressed air system, as this would result in the highest expected

NPV.

[1]This is the payback period for the energy-efficient (EE) option using the difference in capital outlay between the standard and EE equipment, rather than the full capital outlay for the EE equipment.

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## Downloads

Download the case study and a cash flow model.

**Case study (PDF 249KB)**

**Cash flow model (XLSX 676KB)**

## Checklist

Check if an environmental upgrade agreement is the right option for your business.

**Download the checklist (PDF 2MB)**

## Contact us

Phone 1300 361 967

**Email Energy Saver**