



Business

Financing your project

Compare options

Chillers

Case Study: chillers

Find out how Joyco determined that they would be better off by about \$610,000 over 25 years if they invested in an energy-efficient system using an Energy Services Agreement to finance a chiller upgrade system.

Situation

Company Joyco needs to replace the existing chiller in their office building with a new one, due to the age of the system and increasing maintenance costs to keep it operational. They are considering two options: continue the required maintenance works to keep their current chiller operational for another 10 years, or install a brand new chiller in the building.

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

Equipment type	Standard	EE
Cost to install (\$)	\$250,000	\$350,000
Operation and maintenance costs (\$ p.a.)	\$30,000	\$20,000

Electricity use (kWh p.a.)	825,000	495,000
Equipment life (years)	10	25
Electricity cost reduction in first year from the system (\$)		\$66,000
Simple payback period for the system (years)		7.6
Simple payback period for the system, with marginal capital ¹ (years)		2.2

Item	NPV	
Standard system	-\$1,865,990	
EE system	-\$1,256,440	>
Difference	\$609,550	

Finance option selected: Energy services agreement

As Joyco would like to outsource all technical risks associated with installing a new chiller and outsource the ownership and operation of

this equipment, they decide to seek an energy services agreement. The finance that will form part of this agreement will be determined with the energy services agreement provided, although Joyco's analysis shows that the most favourable NPV is likely to result from using an Environmental Upgrade Agreement or energy efficiency loan.

¹This 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
239KB)**

**Cash flow
model
(XLSX
683KB)**

Checklist

Check if an energy services agreement is the right option for your business.

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

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